

ENVIRONMENTAL ASSESSMENT ADDENDUM

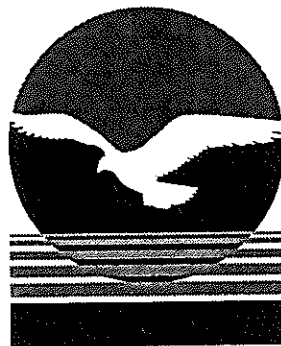
HERON BAY DEVELOPMENT EXTENSION

**Badin Lake (Narrows Reservoir)
Montgomery County, North Carolina**

for

**KEJ Marketing Co., Inc.
Charlotte, North Carolina**

Prepared by:



EcoScience

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October 1998

EXECUTIVE SUMMARY

This document is an addendum to the "Environmental Assessment: Heron Bay Development" (EA) prepared for Waterfront Properties (February 1996). The approximately 102-acre extension to the Heron Bay development is part of a low-density, moderately-priced, planned residential community proposed for the north shore of Badin Lake (Narrows Reservoir). The extension area is planned for 57 homes, 25 on lots adjacent to the Yadkin, Inc. lake buffer. The extension area fronts approximately 1.0 mile of lake shoreline. Landowners will have access to the lake through 12 individual piers and 5 shared piers. The estimated total area filled by the proposed shoreline recreational use facilities is 0.002 acre, and the estimated total area shaded by the proposed shoreline recreational use facilities is 0.37 acre. Planning for pier locations is based on precedents established in prior pier approvals granted by Yadkin, Inc. for The Springs at High Rock. The developer of Heron Bay proposes to coordinate with Yadkin, Inc. in the construction of erosion control structures where needed, and in the removal or relocation of aquatic obstructions to minimize safety hazards.

Land use in the development property will change from unmanaged forest to residential. The Heron Bay development will provide long-term stability after a brief period of construction. Plant community impacts will be concentrated within dry-mesic oak-hickory forest and mesic mixed hardwood forest. Impacts will be minimized to the extent needed to accommodate new facilities (roads, houses, driveways, shoreline structures). No unique natural communities are expected to be impacted as a result of proposed development.

Water resources impacts will be limited to two jurisdictional stream crossings (a total of approximately 185 linear feet [ft] or 0.02 acre) and aquatic (lake shore) areas sited for recreational use facilities (approximately 0.002 acre to be filled). A vegetated buffer will remain adjacent to the lake shoreline and tributaries. Water willow (*Justicia americana*) beds occur sporadically along the shoreline adjacent to the extension area. Water willow impacts will be avoided wherever practicable during pier construction.

A check of U.S. Fish and Wildlife Service and N.C. Natural Heritage Program lists of protected species verified that the only federal-protected species documented from the vicinity of the extension area is the bald eagle (*Haliaeetus leucocephalus*), which is listed as federally Threatened. There is no evidence of eagles nesting on the lake, but eagles regularly feed below Narrows Dam and have been observed flying over the lake. As part of field work conducted in support of this document, a bald eagle perch tree survey was conducted along the shoreline adjacent to the Heron Bay development area, including the extension area. No perch trees were identified during the survey, but two potential perch trees were identified within the Yadkin, Inc. buffer adjacent to Heron Bay. No adverse impact to protected or rare species is expected as a result of the proposed development.

Boat carrying capacity studies have been used to recommend standard carrying capacities for recreational lakes. The standard carrying capacity for Badin Lake may vary from 765 to 595 boats. 1996 boat use data indicate that during the highest use periods, Badin Lake boat use is approximately 400 boats. The proposed development is projected to increase peak boat usage of Badin Lake by approximately four boats.

The developers of Heron Bay look forward to cooperating with regulatory entities to minimize adverse environmental impacts during all phases of the establishment and maintenance of this proposed residential community. Heron Bay recognizes federal, state, local, and Yadkin, Inc. regulations and directives concerning development in this area. This Environmental Assessment addendum addresses issues of concern to this development and regulatory entities. The results of the discussion of these issues will assist Heron Bay in developing a residential community that blends with the existing environment while providing access to that environment.

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**HERON BAY DEVELOPMENT EXTENSION
BADIN LAKE (NARROWS RESERVOIR)
MONTGOMERY COUNTY, NORTH CAROLINA**

I. INTRODUCTION

This document is an addendum to the "Environmental Assessment: Heron Bay Development" (EA) prepared for Waterfront Properties (February 1996). This document concerns an approximately 102-acre extension to the western end of the existing approximately 260-acre Heron Bay development area. To avoid unnecessary repetition of information, this addendum is structured as an appendix to the 1996 Environmental Assessment (EA) document. This addendum presents information specific to the extension area as well as cumulative impacts of both the original development area and the extension area.

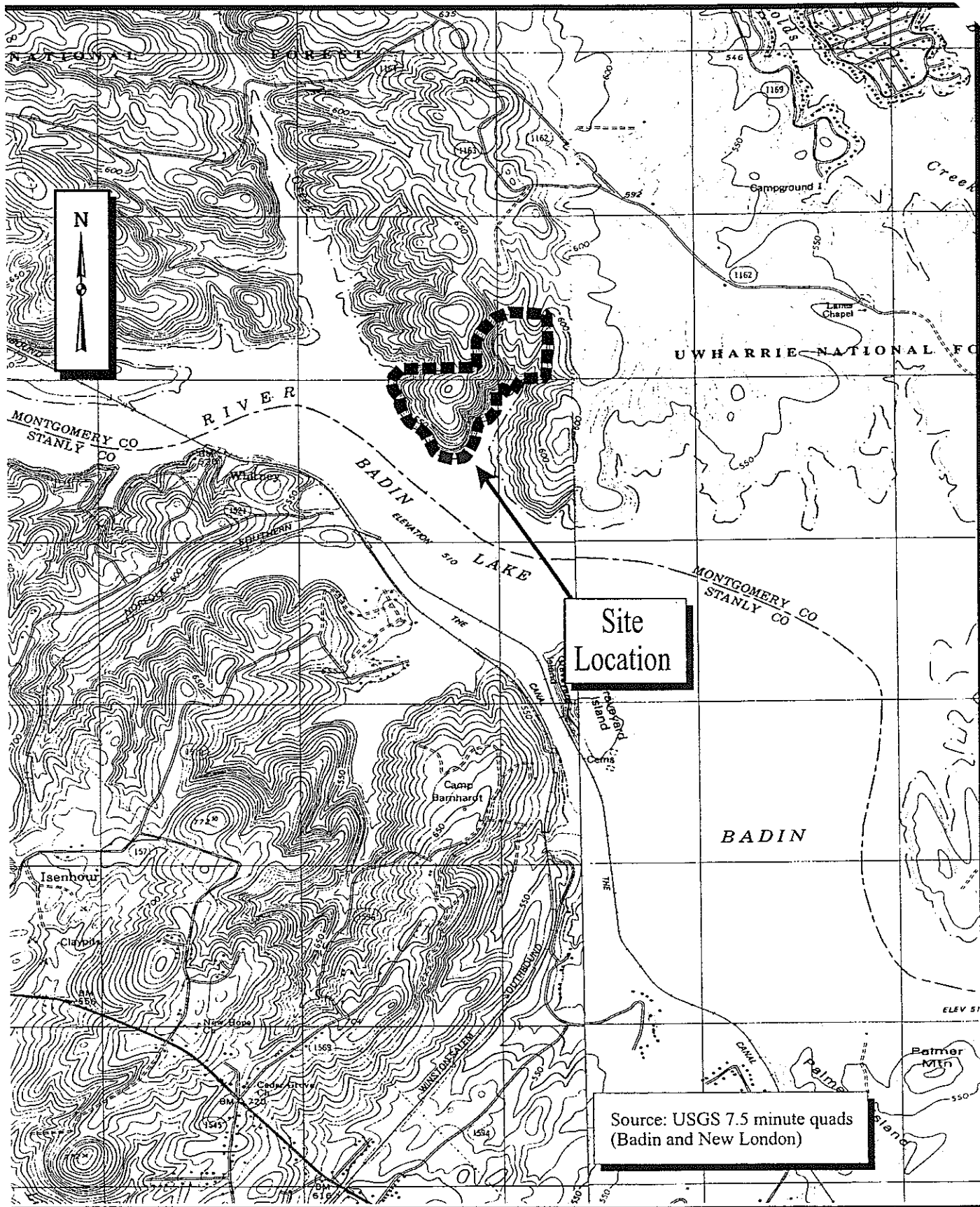
General Description

The extension area is located immediately west of and adjacent to the original development area on the north shore of Badin Lake, also known as Narrows Reservoir (Figure 1). The development extension will consist of residential, single family homes on 25 lots adjacent to the Yadkin, Inc. shoreline buffer and 32 interior lots. A total of 57 homes are proposed on approximately 102 acres. Figure 2 indicates the present planned lot configuration and access road route within the development extension.

Project Need

Heron Bay has been planned to offer the general public a low-density community of single-family home sites with an upscale amenity package where all homeowners will have access to Badin Lake at moderate prices. This project will serve the needs of those interested in a location for a first home, a second home, or a retirement home on Badin Lake. Plans call for large single-family lots, maintaining a density of less than one residential dwelling per acre. The purpose and need for this project is a market-driven issue, and the current economic climate is favorable toward this type of housing development. The proximity of the development area to several metropolitan areas, as well as the secluded nature of the development area, offer a variety of opportunities to prospective home buyers and real estate investors.

The developer proposes construction of 12 individual piers and five shared piers within the extension area, and additional shoreline development may include stabilization in areas with



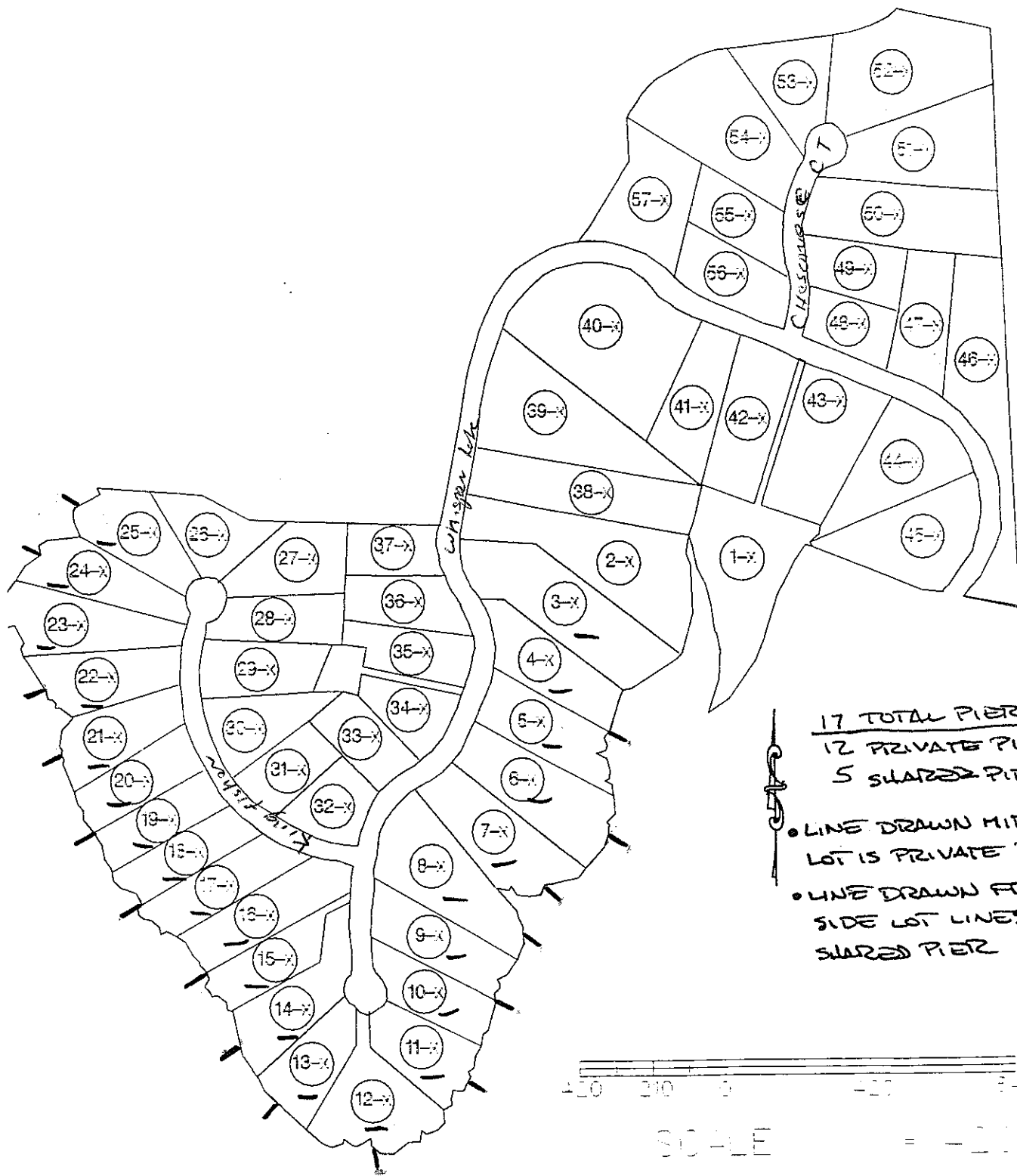
EcoScience
Corporation

Site Location
Heron Bay Extension
Montgomery County, North Carolina

Figure: 1

Project: 98-036

Date: Sept 1998



excessive erosion. The developer is providing this EA addendum as part of a continuing effort to comply with Yadkin, Inc. guidelines for lakeside development.

The goal of this EA addendum is to provide supplementary information concerning: 1) the proposed development, 2) the existing environment, 3) environmental consequences due to the proposed project, 4) planned mitigative measures, and 5) natural resource agency consultations. This addendum has been prepared to comply with the format of the Heron Bay EA and updated Yadkin standards (see Appendix A of this addendum).

Reservoir Access and Shoreline Impact

The extension area fronts approximately 1.0 mile of Yadkin, Inc. shoreline buffer on Badin Lake, divided into 25 lots. Landowners that front the Yadkin, Inc. buffer will receive access to water through piers belonging to individual landowners and piers shared by adjacent landowners. Proposed shoreline recreational use facilities include 12 individual piers (Lots #6, 7, 8, 11, 12, 13, 14, 21, 22, 23, 24, and 25) and five shared piers (Lot-lines # 4/5, 9/10, 15/16, 17/18, and 19/20). Planning for pier locations is based on precedents established in prior pier approvals granted by Yadkin, Inc. (see letter for The Springs at High Rock dated 27 July 1994 in Appendix B of the EA). The specific dimensions of proposed facilities will depend on site conditions.

For the purpose of estimating impacts, a standard size has been determined for each facility type. Standards are based on revised structural specifications required by Yadkin, Inc. (Appendix B of this addendum). Impacts can be expected to be equal to or less than this estimate.

<u>Facility Type</u>	<u>Impact (standard size)</u>
Individual pier	A 10 feet (ft) X 28 ft stationary platform connected to a 20 ft X 32 ft floating platform by a 6 ft X 15 ft hinged ramp for a total of 1010 square feet (sq ft).
Shared pier	A 10 ft by 28 ft stationary platform connected to a 16 by 20 ft floating platform by a 6 by 27 ft hinged ramp for a total of 762 sq ft.

The maximum total area covered by these facilities is 15,930 sq ft (0.37 acre). The breakdown by facility type is 12,120 sq ft (0.28 acres) for individual piers and 3810 sq ft (0.09 acre) for shared piers. In order to minimize adverse impacts to the lake bed and the aquatic ecosystem, the developer proposes constructing piers of sufficient length to reach minimum water depths (8 ft below the maximum normal pool elevation) and avoid the need for dredging.

Permits and Restrictions

Development of the Heron Bay extension will involve permitted and/or restricted activities under various federal and state laws. Permits and restrictions listed in the EA remain applicable.

The Montgomery County Health Department, Environmental Health Section has permitted 57 lots within the Heron Bay development extension for on-site waste water treatment and disposal systems (see Appendix C of this addendum). The developer has prepared sediment and erosion control plans for the development extension. These plans have been approved by the N.C. Department of Environment and Natural Resources. A copy of the Certificate of Plan Approval is included in Appendix D of this addendum). The *Declaration of Restrictive Covenants of Heron Bay Subdivision* is included in Appendix F of the EA. The *Declaration of Covenants, Conditions and Restrictions of Heron Bay Subdivision* is included in Appendix G of the EA.

Shoreline Developer Restrictions

Yadkin, Inc.'s current recreational use facilities specifications were revised and approved 2 June 1997 (Appendix B of this addendum). The Heron Bay development intends to comply with Yadkin, Inc. specifications and approved variances.

II. EXISTING ENVIRONMENT

An environmental field review of the Heron Bay development extension property was conducted on 4, 13, and 27 August 1998. General sources of reference used for background information concerning the existing environment include U.S. Geological Service (USGS) topographic maps (Grist Mountain and High Rock 7.5 minute quadrangles), U.S. Fish and Wildlife Service (FWS) National Wetlands Inventory (NWI) maps, a list of federal-protected species from FWS, protected and rare species records compiled by the N.C. Natural Heritage Program (NHP), records compiled at the Office of State Archaeology (OSA), an environmental document prepared for a previously-planned residential development on this site (Williamsburg Environmental Group, Inc. 1997), and local and regional planning and regulatory documents.

Physical Resources

Land Use

The land included within the extension area was previously planned for residential development as part of the Old North State Club at Uwharrie Point. The development extension primarily supports a mature, mixed hardwood (oak-hickory) forest and some areas dominated by shrub assemblage that appear to be recovering from a clearing activity. A roadway system is currently under construction to provide access to the area (Figure 2). There is presently no lake access (boat ramp or pier) within the extension area.

Topography and Geology

The extension area is characterized by gently-rolling hills and sometimes steep slopes along drainage ways and portions of the lake shoreline. Elevations in the extension area range from a low of 514 feet (ft) National Geodetic Vertical Datum (NGVD) (545 ft, Yadkin, Inc. datum) at the Yadkin, Inc. shoreline buffer to a high of approximately 650 ft, NGVD (681 ft, Yadkin, Inc. datum) in the south-central portion of the extension area.

Heron Bay is located in the Piedmont physiographic province of North Carolina, within a region known as the Carolina slate belt. The Carolina slate belt is a zone of slightly metamorphosed (biotite-chlorite facies) volcanic and sedimentary rocks, thought to have originally formed in the Late Proterozoic Era or Cambrian Period (DMR 1958). Approximately 600 million years ago, this area was part of a chain of volcanic islands surrounded by a shallow sea. After volcanism ceased, layers of ash, lava, and sediments were deeply buried, and subsequently folded and tilted from tectonic activity, producing the metamorphic rocks which presently characterize the region (NCGS 1989). Metavolcanic rocks include felsic (predominately composed of feldspar and quartz, and light in color) dacite (originally an extrusive igneous rock) and rhyolite (originally an intrusive igneous rock) in flows and tuffs

(detrital material explosively ejected from a volcanic vent), interbedded with mafic (predominantly composed of ferromagnesium minerals, and dark in color) and intermediate (igneous rock containing 52-66 percent silicon dioxide) metavolcanic rocks. Metasedimentary rocks include metamudstone (originally an indurated clay rock) and metaargillite (a rock which is more indurated than claystone or mudstone, but less indurated than slate) (NCGS 1985).

Water Resources

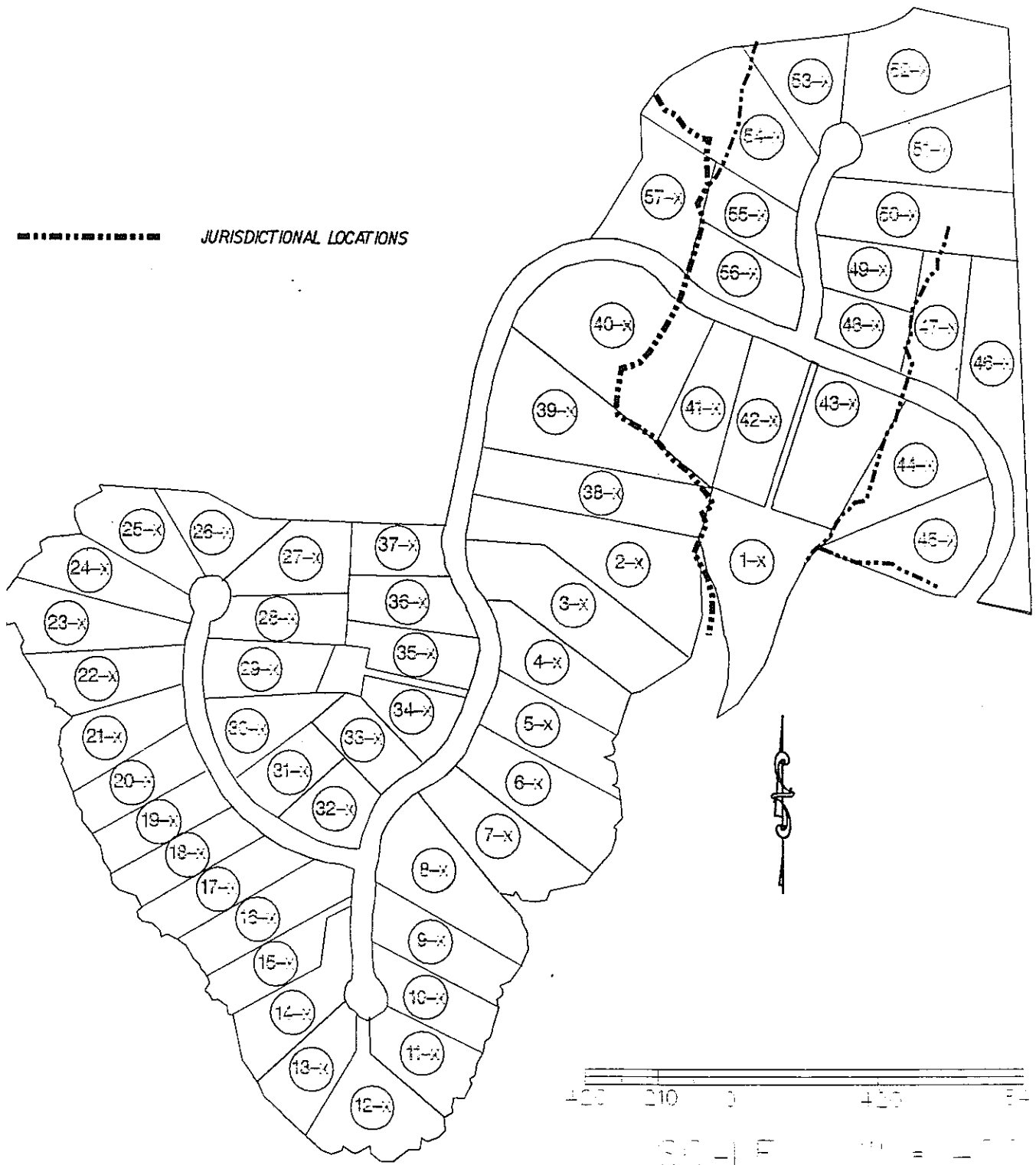
The development contains no named streams and abuts the Yadkin, Inc. shoreline buffer along the north shore of Badin Lake. Badin Lake is designated part of U.S. Geological Survey (USGS) Hydrologic Unit #03040104 and N.C. Division of Water Quality (DWQ) Subbasin #03-07-08. Badin Lake has a best usage classification of **WS-IV** and **B** (DWQ 1997). Class **WS-IV** waters are protected as water supplies, which are generally in moderately- to highly-developed watersheds or protected areas. Class **WS-IV** waters are used as sources of water supply for drinking, culinary, or food processing purposes. Class **B** uses are primary recreation, aquatic life propagation and survival, fishing, wildlife, and agriculture. "Primary recreation" is defined as activities involving human body contact with water, where such activities take place on a frequent and organized basis.

The major inputs controlling the trophic level of Badin Lake is upstream dam release and runoff from the surrounding landscape. The N.C. Trophic State Index (NCTSI) is used for evaluating the trophic status, or level of biological productivity, of lakes. The index is based on measurements of phosphorus, organic nitrogen, chlorophyll, and turbidity. The present NCTSI classification for Badin Lake (due to 1994 sampling) is **Mesotrophic** (DWQ 1997). This term refers to a moderate level of productivity, a diversity of biological components, and a flexibility of the living system's ability to adapt to imposed changes.

Section 404 Jurisdictional Areas

Section 404 jurisdictional areas in and adjacent to the development area are lacustrine and palustrine in nature, as defined by Cowardin *et al.* (1979) and displayed on the NWI map of the New London USGS 7.5 minute quadrangle. Badin Lake is a lacustrine, limnetic system. Palustrine areas are limited to narrow drainages that include vegetated wetlands in their upper portions that drain through unvegetated, unnamed tributaries to Badin Lake; both of which are located in the northeast portion of the development extension (Figure 3). Sources of hydrology for these systems are natural springs and runoff from adjacent uplands.

Jurisdictional areas were delineated in the field in July 1998. The delineation was verbally verified by Mr. Allen Davis of the COE Wilmington field office following a field visit on 4 August 1998. A survey plat of property jurisdictional areas was approved by the COE on 3 October 1998 (see Appendix E of this addendum).



Shoreline Physiography

Badin Lake has been formed by the damming of a river valley. The extension area consists of former ridges and slopes that are transected by narrow drainages that empty into the lake. The moderate to steep slopes adjacent to the shoreline support a mixed hardwood forest. Near-shore bottom contours vary with local landforms. The lake bed adjacent to the shoreline is characterized by a moderate slope along the lake-fronting portion of the extension property (south-facing shoreline) and a shallow slope adjacent to the cove-fronting portion of the extension property (east-facing shoreline). Table 1 indicates the horizontal distance measured from the normal pool shoreline to obtain a depth of 8 feet off selected lots. These depths were determined by Waterfront Property personnel. Appendix F of this addendum includes a copy of a near shore bathymetry map prepared for this site by Williamsburg Environmental Group, Inc. (WEG). This map was compiled from field data collected in October 1997.

Some steep shorelines facing open water have developed bluff-like characteristics as a result of collapsing of the bank due to erosion. Wind-driven waves and boat wakes are the primary erosive forces resulting in a constant change of the shoreline contour. Fallen trees that are partially submerged and extend above the shoreline (lap trees) occur at scattered locations along the shoreline adjacent to the extension area. Some of these trees were apparently dropped with chainsaws.

Biological Resources

Plant Communities

Terrestrial

An attempt has been made to classify plant communities according to nomenclature provided by Schafale and Weakley (1990). Any communities so designated are indicated by capitalization. The predominant plant community is Dry-Mesic Oak-Hickory Forest. Mesic Mixed Hardwood Forest is found in limited amounts along linear drainages. The composition of these communities is described in the EA document and will not be repeated here. Throughout the extension area, forest canopy includes scattered pines, including short-leaf pine (*Pinus echinata*) and Virginia pine (*P. virginiana*). One small area (2 to 3 acres in size) in the north-central portion of the property supports a mixed shrub and herb community, apparently recovering from a recent clear cut. This area supports typical invasive species such as seedlings of sweetgum (*Liquidambar styraciflua*), red maple (*Acer rubrum*), flowering dogwood (*Cornus florida*), Virginia pine, winged sumac (*Rhus copallina*), goldenrods (*Solidago* spp.), dog-fennel (*Eupatorium capillifolium*), and lespedeza (*Lespedeza virginica*).

Table 1. Vertical depths measured 75 feet from the shoreline normal pool level off of selected lots of the Heron Bay Extension Area. Depth measurements are given in feet.

Lot #	Depth	Lot #	Depth
3	12.5	15	20.6
4	16.8	16	11.7
5	21.0	17	21.0
6	23.7	18	19.0
7	14.2	19	23.7
8	24.7	20	28.0
9	21.0	21	15.0
10	26.5	22	16.7
11	28.5	23	10.5
12	44.0	24	8.7
13	38.0	25	8.1
14	33.0		

INDIVIDUAL PIER PROPOSED

PRIVATE PIER PROPOSED

Aquatic

Aquatic, emergent vegetation is not diverse, but is common along the lake margin. Water willow (*Justicia americana*), is well established along shoreline adjacent to the extension area. The willow appears to grow wherever there is shallow water adjacent to the shore on substrates varying from rocky shelves to sandy and stony shorelines. Willow beds are established both in direct sunlight and under low-hanging branches of evergreen canopy trees. Appendix G includes a map of water willow bed locations adjacent to the extension area. Field data used in generation of this map were collected in October 1997. Other observed aquatic species include lizard's tail (*Saururus cernuus*), pickerelweed (*Pontederia cordata*), rushes (*Juncus* spp.), and buttonbush (*Cephalanthus occidentalis*).

Wildlife

Terrestrial

Terrestrial animals observed or in evidence (tracks or scat) during field surveys include: gray squirrel (*Sciurus carolinensis*), white-tailed deer (*Odocoileus virginianus*), Virginia opossum (*Didelphis virginiana*), raccoon (*Procyon lotor*), black racer (*Coluber constrictor*), and eastern box turtle (*Terrapene carolina*).

Birds observed during field surveys include: red-tailed hawk (*Buteo jamaicensis*), northern rough-winged swallow (*Stelgidopteryx serripennis*), brown-headed nuthatch (*Sitta pusilla*), Carolina wren (*Thryothorus ludovicianus*), Carolina chickadee (*Parus carolinensis*), tufted titmouse (*P. bicolor*), blue-gray gnatcatcher (*Poliophtila caerulea*), eastern wood-pewee (*Contopus virens*), eastern kingbird (*Tyrannus tyrannus*), northern cardinal (*Cardinalis cardinalis*), blue jay (*Cyanocitta cristata*), and common crow (*Corvus americana*).

Aquatic

Water birds observed on the lake include northern osprey (*Pandion haliaetus*), rough-winged swallow (*Stelgidopteryx serripennis*), great blue heron (*Ardea herodias*), and belted kingfisher (*Ceryle alcyon*). Observed aquatic animals include: yellowbelly slider (*Trachemys scripta*) and bullfrog (*Rana catesbeiana*). The lake shoreline is littered with shells of the Asiatic clam (*Corbicula fluminea*), indicating a healthy population of this species. No other clam or mussel shells were observed.

Protected and Rare Species

Federal-listed species with Endangered or Threatened status receive protection under the Endangered Species Act of 1973 (16 US 1531 *et seq.*). As of 14 May 1998, FWS lists four Endangered (E) and one Threatened (T) species for Montgomery County. The Endangered species are Schweinitz's sunflower (*Helianthus schweinitzii*), smooth coneflower (*Echinacea*

laevigata), red-cockaded woodpecker (*Picoides borealis*), and eastern cougar (*Felis concolor*). The Threatened species is bald eagle (*Haliaeetus leucocephalus*). The "Endangered" status refers to a species "which is in danger of extinction throughout all or a significant portion of its range"; and the "Threatened" status refers to a species "likely to become endangered within the foreseeable future throughout all or a significant portion of its range" (Endangered Species Act, Section 3).

Schweinitz's sunflower. This species is an erect, unbranched, rhizomatous, perennial herb that grows to approximately 6 ft in height. The stem may be purple, is usually pubescent, but occasionally nearly glabrous. Leaves are sessile, opposite on the lower stem but alternate above. Leaf shapes are lanceolate and average 5 to 10 times as long as wide. The leaves are rather thick and stiff, with a few small serrations. The upper leaf surface is rough and the lower surface is usually pubescent with soft white hairs. Schweinitz's sunflower blooms from late August to frost; the yellow flower heads are about 0.6 inches in diameter. The current range of this species is within 60 miles of Charlotte, North Carolina. This sunflower occurs on upland, interstream flats or gentle slopes, in soils that are thin or clayey in texture. The species needs open areas protected from shade or excessive competition, reminiscent of Piedmont prairies. Disturbances, such as fire maintenance or regular mowing, help sustain preferred habitat (FWS 1994).

Habitat for Schweinitz's sunflower occurs within the region, but not in the extension area. The development is primarily forested, and the portion that is shrub assemblage is so due to recent clear cutting. There is no area characterized by regularly maintained herb assemblage within the extension area. NHP has no documented records for this species within or near the extension area. The nearest documented population of Schweinitz's sunflower is approximately 13 miles to the northwest, in the vicinity of the junction of Stokes Ferry Road (SR 1004) and Old Beatty Ford Road (SR 2356).

Smooth Coneflower. Smooth coneflower is a stiffly erect, rarely branched perennial that grows up to 5 ft tall. Basal and stem leaves are large, glabrous, lanceolate to narrowly ovate blades reaching 3 inches in length. This coneflower blooms from late May to July, producing solitary, purple, tubular or cone-shaped flowers (Kral 1983). This species occurs on calcareous, basic, or circumneutral soils on roadsides, clear cuts, power line right-of-ways where there is abundant light and little herbaceous competition (Gaddy 1991). Fire-maintained woodlands also appear to provide potential habitat for the coneflower.

Habitat for smooth coneflower occurs within the region, but not in the extension area. The coneflower requires a maintained herbaceous community that offers little competition, much like Schweinitz's sunflower, and the extension area has no such habitat. NHP has no documented records for this species within or near the extension area. The FWS acknowledges that this species is listed for Montgomery County due only to an "obscure record", and that the date and/or location of the observation is uncertain.

Red-cockaded Woodpecker. This is a small woodpecker (7 to 8.5 inches long) that has a black head, prominent white cheek patch, and black-and-white barred back. Males often have red markings (cockades) behind the eye, but the cockades may be absent or difficult to see (Potter *et al.* 1980). Primary habitat consists of mature to over-mature southern pine forests dominated by loblolly (*Pinus taeda*), long-leaf (*P. palustris*), slash (*P. elliotii*), and pond (*P. serotina*) pines (Thompson and Baker 1971). Nest cavities are constructed in the heartwood of living pines, generally older than 70 years, that have been infected with red-heart disease. Nest cavity trees tend to occur in clusters, which are referred to as colonies (FWS 1985). The woodpecker drills holes into the bark around the cavity entrance, resulting in a shiny, resinous buildup around the entrance that allows for easy detection of active nest trees. Pine flatwoods or pine-dominated savannas which have been maintained by frequent natural fires serve as ideal nesting and foraging sites for this woodpecker. Development of a thick understory may result in abandonment of cavity trees.

Habitat for red-cockaded woodpecker occurs within the region, but not in the extension area. Forests within the extension area are predominantly oak-hickory in composition. Scattered pines occur in the forest canopy but not in a density sufficient to support this woodpecker. NHP has no documented records for this species within or near the extension area.

Bald Eagle. Bald eagle was down-listed from Endangered to Threatened by the FWS during 1995 due to the apparent recovery of the population. This species occurs throughout North America, primarily in association with large lakes and coastal bays and sounds where food is plentiful. Mature eagles (usually 4 to 6 years and older) are identified by a white tail and head, dark brown to black body and wings (wingspread to 6 ft), and yellow eyes, bill, and feet. Juveniles are uniformly chocolate-brown and sometimes have whitish mottling on the tail, belly, and wing linings. Maturing individuals become lighter in color and the mottling increases until the adult plumage pattern is acquired. Nest sites occur close to feeding grounds in large trees (predominately pine or cypress), either living or dead. Eagles are opportunistic hunters

and scavengers, feeding on a wide variety of aquatic-dependent organisms including fish, snakes, small mammals and large water birds. The primary source of food is carrion and fish taken from ospreys (Potter *et al.* 1980).

A bald eagle management plan (BEMP) for Badin Lake was prepared by Yadkin, Inc. in 1995 (Yadkin, Inc. 1995). A shoreline survey conducted in support of this plan (October and November 1994) identified no roosting or nesting habitat along the shoreline or on islands within the reservoir. This survey was a cooperative effort by Yadkin, Inc. personnel and personnel with the Center for Conservation Biology (CCB), College of William and Mary. This survey did, however, identify suitable and potentially suitable perch habitat along the shoreline and on lake islands. BEMP Map 5.2 indicates one area within the extension area as suitable bald eagle perch habitat and one area as potentially suitable bald eagle perch habitat. According to the Draft Yadkin Project Shoreline Management Plan (DSMP), a shoreline habitat survey was conducted on Badin Lake in 1996 for eagle habitat. The 1996 survey was another cooperative effort by Yadkin, Inc. and the CCB. This survey was to refine information gathered in the BEMP survey. The 1996 survey resulted in the identification of four priority eagle areas on Badin Lake, none are located within the Heron Bay development area, including the proposed extension area. The closest priority area is across the lake from Heron Bay on Graveyard Island.

The nearest documented bald eagle nest is approximately 20 miles downstream of the Badin Lake dam on the Pee Dee River. Eagles have been observed feeding below the dam spillway, approximately 4 miles south of the extension area. Most sightings of this species have been made from the large peninsula north of the dam and from two large islands near the western shore.

As part of the field work conducted in support of this document, a bald eagle perch habitat survey was conducted by EcoScience Corporation personnel on 27 August 1998. A boat was used to travel along the shoreline of the extension area and observe vegetation in search of suitable perch trees. The BEMP describes important characteristics of perch habitat as follows: 1) near a water body with a good food source; 2) protected from the elements such as wind and rain; 3) near a roost site; and 4) distance from minimal disturbances caused by man. Characteristics of specific perch trees include: 1) scattered trees taller than the surrounding forest; 2) wide, open, well-developed crown growth; 3) wide spaced, stout, lateral limbs to accommodate an eagle's wingspan; 4) either pine or hardwood trees; 5) visual access to water; and 6) visual access to the surrounding area. The August 1998 search resulted in the identification of no suitable perch trees, with respect to the

characteristics described by the BEMP. However, two dead pines, located within the Yadkin, Inc. buffer adjacent to Heron Bay may provide potential perch habitat. These trees have been dead for some time and are not expected to remain standing long (see Appendix H of this addendum). No eagles were observed during the habitat survey.

Eastern Cougar. The eastern cougar is a possibly-extinct eastern subspecies of the widespread mountain lion species. This species was possibly extirpated from North Carolina by the late 1800s although recent sporadic sightings have been reported from remote areas of the mountains and coastal plain (Lee 1987). Mountain lions are large, long-tailed cats; adult males may measure 7 to 9 ft in total length with females averaging 30 to 40 percent smaller (Handley 1991). Recent specimens of mountain lion taken in North Carolina and elsewhere in mid-Atlantic states have proved to be individuals of other subspecies that have escaped or been released from captivity (Lee 1987, Handley 1991). The eastern cougar requires large tracts of relatively undisturbed habitat that support large populations of white-tailed deer (Webster *et al.* 1985). NHP has no documented records for eastern cougar within or near the expansion property.

Cultural Resources

A family cemetery (the Hall family) is known to occur on top of the primary ridge in the southwestern portion of the extension area. In order to interpret the potential occurrence of other significant cultural resources within the expansion area, a cursory background search was conducted at the OSA. Locations of previously recorded sites in the vicinity of the extension area were investigated, and reports of area archaeological surveys were reviewed. The documentation indicates that the extension area represents a potentially high probability for containing archaeological sites, both prehistoric and historic. The location of the property, on a tributary to the Yadkin River, would have made the area desirable for human settlement and/or utilization of natural resources.

Lake Use

The EA document presents background information concerning theoretical recreational boat carrying capacity of Badin Lake, and this data will not be repeated here. The Draft Yadkin Shoreline Management Plan (SMP) also provides carrying capacity information, suggesting that the total recreational boat carrying capacity of Badin Lake may be somewhere between 595 and 765 boats. The SMP states that data collected in 1996 indicate that even during the highest use periods, Badin Lake boat use is approximately 400 boats in use at the same time, well below carrying capacity.

III. ENVIRONMENTAL CONSEQUENCES

Land Use

Prior to purchase for development by Waterfront Properties, the extension area was being held under private ownership as a future investment. Construction of the proposed residential development will result in a short-term disturbance followed by long-term stability in terms of area land use. Construction of roadways, laying of utility lines, installation of water wells and septic fields, and clearing of home sites are the primary short-term disturbances involved with the development. Since a goal of Heron Bay is to integrate a residential community into the existing natural environment, minimum tree removal will take place on lots, primarily associated with building placement and driveways. Understory and shrub vegetation is expected to be thinned, and ground cover will either be left natural or supplemented with grasses to stabilize the topsoil. Vegetation within the county's perennial streams and lake buffer and within Yadkin, Inc.'s buffer will be left natural, with minimal alterations.

Water Resources and Section 404 Jurisdictional Areas

Adverse impacts to water resources will be minimized to the greatest extent possible. The total lacustrine area that may be affected by land-based facilities is 0.37 acre. The total palustrine area that may be affected by development is approximately 0.03 acre.

Lacustrine impacts will consist of either the placement of fill material or shading. Impacts involving fill material will occur to a minimal extent due to construction of piers (insertion of pilings). This activity will result in the placement of fill on approximately 0.002 acre of lacustrine areas. Construction of these facilities is expected to cause only a short-term environmental disturbance during installation. Shading will occur from constructed piers over approximately 0.37 acre of lacustrine area.

Two palustrine drainages are crossed by access roads (Figure 3). The eastern crossing involves an intermittent drainage approximately 3.5 ft wide. The western crossing involves another intermittent drainage approximately 8 ft wide. Both drainages channel spring water and upland runoff to Badin Lake. Impacts to these jurisdictional areas will be minimized to the greatest extent possible through placement of the road. No vegetated wetlands will be impacted by extension area roads.

The two palustrine, jurisdictional areas will pass under the proposed access road through pipes approximately 85 ft (eastern crossing) and to 100 ft (western crossing) in length. The total fill associated with pipe installation will be approximately 185 linear ft of stream or 0.02 acre of jurisdictional area. Impacts are expected to be eligible for permitting under Nationwide Permit #26 for headwaters and isolated waters discharges.

Water quality in the adjacent lake and intermittent streams will be protected from initial development construction through the implementation of best management practices. Water quality protection will be enhanced thereafter by the vegetative buffers adjacent to waterways and ground cover established in residential lots.

Cumulative impacts of both the original development area and the extension area are as follows. The total lacustrine area that may be affected by land-based facilities is 1.55 acre. The total palustrine area that may be affected by development is approximately 0.345 acre.

Shoreline Impacts

As mentioned in the previous section, impacts due to recreational use structures proposed for the lake's immediate shoreline are estimated at 0.002 acre of fill and 0.37 acre of shading. Other impacts will include paths and roads to these facilities. All access points will be designed and constructed in cooperation with Yadkin, Inc. to minimize both short- and long-term environmental impacts.

A naturally-vegetated buffer will remain adjacent to the shoreline in all waterfront lots. The County requires a 50-ft buffer along all lake shorelines and perennial tributaries. Yadkin, Inc. controls a buffer a 4.0 ft contour above the normal lake flood pool. This buffer, in conjunction with maintained ground cover within residential yards, will curtail surface runoff from residential areas. Septic fields will be planned and installed using best management practices to minimize the possibility of influence on the lake.

Cumulative impacts of both the original development area and the extension area may include the construction of 67 individual piers, 14 shared piers, 4 cluster piers, and a boat ramp. Where the shoreline is characterized by excessive erosion, efforts may be made to stabilize these areas through use of rip-rap, bulkheads, or other methods agreed upon by Yadkin, Inc., appropriate resource agencies, and the developer or adjacent landowner.

Biological Impacts

Plant Communities

Impacts to plant communities, both terrestrial and aquatic will be minimized to the greatest extent practicable. Within lots, removal of some trees and undergrowth will occur, but primarily to the extent necessary to accommodate new facilities. The Heron Bay goal of providing a low-density housing community in a natural setting requires the presence of natural vegetation. No unique terrestrial communities will be affected in the extension area and no uncommon or unique species have been documented within the extension area.

Of some interest is the aquatic emergent plant community in the vicinity of the development area, primarily water willow beds. The ecological role of water willow in lacustrine systems has been expounded upon to some detail by the EA document and resulting correspondence from the N.C. Wildlife Resources Commission and the Waterfront Properties consulting ecologist. This information will not be repeated here.

Willow commonly occurs in bands along the shore of Heron Bay and in numerous areas along the rest of the Badin Lake shoreline. Approximately 50 percent of the shoreline adjacent to the extension area contains evidence of water willow; however, the relatively steep slope of the near shore lake bed and the relatively stable lake water level have resulted in willow growth limited to a narrow band (generally 1 to 4 ft wide), based around the normal pool elevation. Willow beds are intermittent along the shoreline, and the shoreline adjacent to each lot contains gaps with no willow growth. Proposed piers will be located to avoid willow beds to the maximum extent practicable. Piers are expected to be anchored to high ground above the shoreline, and will thus impact willow beds, if necessary, primarily through shading. If an average band width of 2 ft can be assumed along the entire expansion property shoreline, proposed piers may shade a maximum of approximately 0.006 acre of willow beds. Again, the developer intends to avoid willow beds wherever practicable. The presence of healthy willow beds under low-hanging, evergreen branches and the presence of healthy willow beds under long-established piers at various locations around Badin Lake, indicate that water willow has a reasonable tolerance for the type of shading expected to result from pier construction.

Construction of shoreline stabilization structures (rip-rap, bulkheads) may be necessary along portions of the shoreline where erosion is degrading water quality and resulting in the loss of upland habitat. In situations where stabilization measures are required, landowners adjacent to the Yadkin, Inc. buffer will work with Yadkin, Inc. and resource agencies to obtain permits for adequate erosion control structures.

Wildlife

No uncommon or unique animals are known to occur within the extension property. Development of the extension area is not expected to result in adverse impacts to wildlife. Short-term displacement of local wildlife populations may occur during initial construction of roads, housing, and shoreline facilities. The existing forest composition and wetlands are not expected to be substantially altered; however, the creation of open areas as residential yards and road sides will favor species that prefer ecotonal habitats over species that prefer forest interior habitats. Many resident species are expected to remain in the area. Adjacent developed areas reveal abundant signs of mammals such as Virginia opossum, raccoon,

striped skunk, and white-tailed deer, indicating that adequate food and cover remain in the area for their continued survival.

The presence of water-related bird life such as great blue heron, osprey, belted kingfisher, and mallard adjacent to waterfront developments with boating activity on Badin Lake suggests that these birds have some tolerance for human disturbance. Existing piers and boat houses appear to be preferred feeding and resting sites for herons and kingfishers, and preferred resting areas for gulls. The presence of numerous artificial owls on shoreline facilities indicates that water birds have habituated to these structures to the point that they are a nuisance.

Construction of shoreline facilities will initially displace fish and aquatic wildlife, but these animals are expected to return after the environment stabilizes. Piers will provide additional structure and shading in the near-shore areas and are not expected to detract from the aquatic environment.

Only lap trees and submerged trees and stumps which introduce a safety hazard to recreational use of the lake will be removed. In these cases, lot owners will work with Yadkin, Inc. to perform mitigative steps to maintain a proportionate amount of structure within the lake margins.

The impact of pier construction is expected to be minimized by staging construction over an extended period of time. Many of the Heron Bay lots are being purchased as future second home sites. No pier construction will be allowed before a house is under roof. Therefore, maximum buildout of proposed piers will occur over several years.

Protected and Rare Species

Five federal-protected species (Schweinitz's sunflower, smooth coneflower, red-cockaded woodpecker, bald eagle, and eastern cougar) are listed for Montgomery County.

Habitat for **Schweinitz's sunflower** occurs within the region, but not in the development property. This sunflower requires maintained herb-dominated communities with little competition and the site is primarily forested. Shrub-dominated portions of the site are the result of recent clear-cutting. NHP has no documented records for this species within or near the expansion property. The nearest documented population of Schweinitz's sunflower is approximately 13 miles to the northwest, in the vicinity of the junction of Stokes Ferry Road (SR 1004) and Old Beatty Ford Road (SR 2356). No adverse impacts to Schweinitz's sunflower are expected as a result this project.

Habitat for **smooth coneflower** occurs within the region, but not in the development property. Smooth coneflower requires a maintained, herb-dominated community with minimal competition similar to Schweinitz's sunflower, and the extension area is lacking this habitat. NHP has no documented records for this species within or near the development property. The FWS acknowledges that this species is listed for Montgomery County due only to an "obscure record", and that the date and/or location of the observation is uncertain. There is no documented population of smooth coneflower within 5 miles of the expansion property. No adverse impacts to smooth coneflower are expected as a result this project.

Habitat for **red-cockaded woodpecker** occurs within the region, but not in the expansion property. The extension area supports a forest with only scattered pines in the canopy. This type of habitat is not known to be preferred by red-cockaded woodpeckers. NHP has no documented records for this species within or near the expansion property. No adverse impacts to red-cockaded woodpecker are expected as a result this project.

The nearest documented **bald eagle** nest is approximately 20 miles downstream of the Badin Lake dam on the Pee Dee River. Eagles have been observed to feed no closer to the extension area than below the dam spillway, approximately 4 miles south of the extension area. Most sightings of this species have been made from the large peninsula north of the dam and from two large islands near the western shore. A perch tree survey conducted in support of this document, identified no perch trees and only two marginally-potential perch trees within the Yadkin, Inc. buffer adjacent to the development area. Also, no eagles were observed during the habitat survey. No adverse impacts to the bald eagle are expected as a result of proposed development.

Although appropriate habitat exists in the vicinity of the extension area, the **eastern cougar** is believed to be extinct from this region of North America. NHP has no documented records for eastern cougar within or near the expansion property. No adverse impacts to eastern cougar are expected as a result this project.

Cultural Resources

The land within the extension area that contains the Hall family cemetery has been set aside to avoid impacts from development. Appendix I contains correspondence from the N.C. Department of Cultural Resources concerning a past proposed development within the extension area.

Lake-Oriented Recreation

The proposed development extension will add 16 piers of various sizes to the lake, accounting for approximately 20 new boat slips. Research indicates that, conservatively, 19 percent of

these boats can be expected to be active on the lake on maximum-use days (summer weekends and holidays). According to this information, the proposed extension area will increase lake boat usage by four boats of all types at peak times of activity. Even with this increase, boat use on High Rock Lake is expected to remain well below the optimum carrying capacity of 595 to 765 recreational boats (as determined by Yadkin, Inc.).

The Heron Bay development, as a whole, will account for approximately 85 piers of various sizes, including approximately 135 new boat slips. After buildout, these slips can be expected to account of an increase in lake boat usage by 26 boats of all types at peak times of activity.

The sports fishery population on Badin Lake is not expected to be adversely impacted by Heron Bay; although some quiet coves currently available to fishermen will become developed due to the proposed project. Increased underwater structural diversity provided by construction of shoreline recreational facilities may actually enhance the sports fishery habitat, especially since this portion of Badin Lake has few lap trees, limited aquatic vegetation, and little general submerged structure. The amount of submerged structure offshore of Heron Bay will remain the same or increase due to the proposed development. Maintenance of a wooded buffer both adjacent to the lake and drainages will provide runoff filters for the development.

IV. AVOIDABLE IMPACTS AND MITIGATION

The developer of Heron Bay has maintained a constant and open line of communication with Yadkin, Inc. and pertinent regulatory agencies concerning development goals and procedures, and communications will continue. Heron Bay has accepted and intends to implement Yadkin, Inc. directives and resource agency regulations, with approved variances, concerning development in the Badin Lake region. The lot sizes have been designed to minimize the built-upon area. The development lots average 1.6 acres in size.

Heron Bay will minimize impacts to wetland drainages and the lake while providing residents with recreational access to Badin Lake. The lot layout has been designed so that extension area drainages occur primarily along lot lines. Perpendicular road crossings have been designed for jurisdictional drainage crossings, and impacts to jurisdictional streams at crossings have minimized to the greatest extent practicable. Sediment and erosion control structures will be designed to protect jurisdictional areas while being located outside of jurisdictional areas.

Any reduction in submerged aquatic habitat structure (removal of stumps or lap trees) will be mitigated prior to construction, with either in-kind replacement or the installation of other structures such as fish attractors, as agreed to by Yadkin, Inc. and Heron Bay. Encroaching recreational use facilities such as piers will be designed to avoid whenever possible and minimize when necessary the surface area of emergent aquatic vegetation shaded by facilities.

Alterations to terrestrial plant communities will be reduced to the greatest extent possible. Canopy trees will primarily be removed only from the footprints of proposed structures. Residential yards will maintain a vegetated ground cover emphasizing natural vegetation. A shoreline buffer width, as required by Montgomery County will remain adjacent to the lake and jurisdictional drainages. Heron Bay will encourage residents to enhance local wildlife habitat through the use of plantings that provide food and cover.

The developer will honor both Yadkin, Inc. and County vegetation buffers adjacent to the lake shoreline and perennial streams. The vegetated buffers will act as a deterrent against water quality degradation by intercepting surface runoff from developed areas. Also, septic tanks will be located as far from the lake shoreline and perennial streams as practicable.

No protected or rare plant or animal species are expected to be adversely impacted by the proposed development. The only protected species that has been documented in the vicinity of the expansion area is bald eagle. A survey conducted in support of this addendum found

no suitable or potentially suitable eagle perch habitat within or along the shoreline adjacent to the Heron Bay development and extension areas. The Heron Bay development will participate in the environmental education of residents and encourage their participation in programs or organizations that are involved with local environmental concerns. The developers of Heron Bay will continue to volunteer time and energies to environmental issues affecting the region.

VI. APPLICANT INFORMATION

KEJ Marketing Co., Inc.

KEJ Marketing Co., Inc. was organized as a development company originally specializing in small acreage tracts. KEJ Marketing Co. has now ventured out to include a number of waterfront communities in North Carolina. At present, property is being developed on Badin Lake, High Rock Lake, Panther Creek, and Lake Lookout.

Additional services provided by KEJ Marketing Co. include research and location of properties that have necessary characteristics for profitable development; the negotiation and financial structuring of acquisitions for such development companies; and the further consulting, planning, and implementation of development plans that comply with policies of local, state, and federal regulatory bodies.

The "sunbelt" region of the United States has gained recognition by the U.S. Chamber of Commerce, industry, and the world as the number one growth area in the nation for the balance of the Twentieth Century. More importantly, the southeastern sunbelt is the last region of beautiful, fertile, truly accessible, inexpensive raw land. Our greatest challenge is to expand to meet the market rapidly, while adhering adamantly to the formulas that provide us with successful, profitable projects.

The management team is headed by Rita A. Collins (President), William G. Allen (Vice President), and Maxine Turner (Assistant Secretary). KEJ Marketing Co. uses a variety of outside contractors to provide management as well as the development work itself.

EcoScience Corporation

EcoScience Corporation (ESC) is a Raleigh-based ecological consulting firm specializing in the preparation of environmental assessments, wetland analyses, protected species studies, permitting, and mitigation. We also offer assistance with hazardous and toxic materials, underground storage tank removal, preparation of Phase I environmental audits for real estate transactions, and soil testing.

The following individuals have been involved in the preparation and review of this document:



ECOSCIENCE CORPORATION

GERALD RAY MCCRAIN PRESIDENT

Title: President and Principal-In-Charge

Academic Background: **Ph.D.** Resource Management (Minor: Interdisciplinary/Public Policy). N.C. State University. 1990.
M.S. Botany (Minor: Ecology). N.C. State University. 1975.
B.S. Botany. N.C. State University. 1972.

ESC Responsibilities: Responsible for all phases of marketing, project development, and management. Specialties include wetland jurisdictional concerns, preparation of environmental assessments, permitting, mitigation planning, environmental policy.

Prior Experience: 1990-1998. Vice President. Environmental Services, Inc. Responsible for office management and project oversight in Raleigh Branch. Managed as many as 18 other professionals and administrative personnel and responsible for project budgets exceeding \$500,000.00.

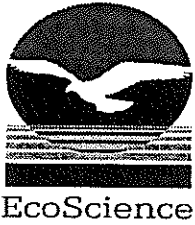
1984-1989. N.C. Department of Transportation, Planning and Environmental Branch. Raleigh, N.C. Mitigation and Permit Specialist.

1978-1982. Virgin Islands Department of Conservation and Cultural Affairs, Division of Coastal Zone Management. St. Thomas, U.S.V.I. Environmental Specialist. V.I. Bureau of Fish and Wildlife. Fisheries Biologist.

1975-1977. Bluebeards Castle Hotel. St. Thomas, U.S.V.I. Director of Grounds and Gardens and Principal Horticulturalist.

Professional Affiliations: Certified Environmental Professional (#90033764)
National Association of Environmental Professionals
Society of Wetland Scientists -Professional Wetland Scientist #000912
Ecological Society of America
Sigma Xi Scientific Honor Society
U.S. Coast Guard Masters License - 50 Ton (#609595)
Professional Association of Diving Instructors (Instructor #8458)

Project Experience:
(examples) Principal-In-Charge, Havelock Bypass (US 70) environmental studies
Project Mgr & Principal, N.C. Global TransPark, Raleigh, NC.
Project Manager, Greenville Southern Connector FEIS, S.C.
Principal-In-Charge, NCDOT and SCDOT wetland mitigation studies.
Project Mgr, highway planning studies (300+), Southeast.



ECOSCIENCE CORPORATION

ALEXANDER PARKER SMITH

title: Senior Project Manager

Academic Background:

M.S. Marine Biology (Coastal Ecology Track)
University of North Carolina at Wilmington, Wilmington, NC

B.S. Biology
Davidson College, Davidson, NC

SC Responsibilities:

1998-present. Project management. Specialties include wetlands delineations and environmental permitting, wetlands functional assessments, natural systems assessments, environmental assessments, mitigation planning, protected species surveys, wildlife surveys.

rior Experience:

1993-1998. Environmental Services, Inc., Senior Scientist Staff, Raleigh, NC. Project manager, technical writer and editor, wetlands delineations, wetlands mitigation planning and site searches, environmental permitting, natural systems assessments, environmental assessments, protected species surveys, wildlife surveys.

1988-1993. CZR Incorporated, Technical Staff, Wilmington, NC. Wetlands delineator, fish and wildlife populations surveyor, wetlands mitigation design and implementation, and office boat captain.

1988. UNC-Wilmington. Conducted field surveys of coastal NC for colonially-nesting waterbirds. Developed a US Army Corps of Engineers computer database for the present and historical breeding status of colonial waterbirds.

1987. U.S. Fish and Wildlife Service. Field technician, Alaska Maritime National Wildlife Refuge, Bering Sea Unit. Monitored breeding biology of cliff-nesting seabirds in the Pribilof Islands.

rofessional Affiliations:

National Association of Environmental Professionals
Sigma Xi Scientific Research Society
American Ornithologists Union
Wilson Ornithological Society
Society of Wetland Scientists, Professional Wetland Scientist #000276

roject Experience:

Project Supervisor, 18 EAs and 3 Biological Assessments for N.C. State Parks improvements throughout NC.

Project Supervisor, US 21/21 Permitting and Mitigation, Beaufort, SC for SCDOT

Project Supervisor, Wetlands Delineation and Permitting, Petersburg wastewater treatment plant, Petersburg, VA.

Project Supervisor, Wetland Delineation, US 52 improvements, Wayne County, WV.

Project Supervisor, Wetland Delineation (40 miles) for NC 24 relocation in Sampson, Duplin, Cumberland Counties, NC.

Project Supervisor, New Bern Marsh Mitigation, Craven Co., NC for NCDOT.

Project Supervisor, Feasibility Analysis for Dredged Spoil Deposition Site Associated with Roanoke Sound and Shallowbag Bay Channels, Dare Co., NC.

Dioxin monitoring fisheries sampling: Chowan, Bertie, Martin Counties, NC.



ECOSCIENCE CORPORATION

WILLIAM GRANT LEWIS

Title: Project Scientist

Academic Background: B.S. Range Ecology. Colorado State University. 1993
Outstanding Student Award for Range Department. 1993

ESC Responsibilities: 1998-present. Project Scientist. Specialties include wetlands delineation, mitigation searches, wetlands functional assessments, Trimble GPS survey, T&E surveys, natural systems assessments, wildlife surveys, and graphics.

Prior Experience:

1994-1998. *Environmental Services, Inc.* Responsible for support of project managers in the Raleigh ESI office. Specialties include wetlands delineation, mitigation, soil mapping, soil classification, CMT GPS maintenance and management, environmental assessments, and project field management.

1993-1994. *CTA ENVIRONMENTAL, INC.* Responsible for assisting project leaders in performing wetland surveys, vegetational surveys, ecological site assessments, and soil analysis.

1992-1993. *Long Term Ecological Research - Central Plains Experimental Range (LTER-CPER).* Field biologist collecting data on a wide variety of experiments, including sampling of vegetation, soil, weather, mammals, birds, and topography.

1989-1992. *Cartwright Inc.* Managed horticultural activities in gardens of Atlanta to finance college.

Professional Activities:

Society of Wetland Scientists
Society for Range Management
Rocky Mountain Raptor Center
Xi Sigma Phi Honors Society
Volunteer Reclamation of Henderson Mine (CO)

Project experience:

N.C.-24 a 40 mile corridor wetland delineation, functional assessment and alternative alignment assessment in Cumberland, Duplin, Sampson Counties N.C.
U.S.-70 a 20 mile corridor wetland delineation, functional assessment and alternative alignment assessment Wayne County N.C.
Georgia Pacific Soils, 42,000 acre soil mapping for Landscape Ecosystem Classification of South GA.
Wetland Delineations in Buncombe, Cabarrus, Craven, Cumberland, Davidson, Duplin, Green, New Hanover, Onslow, Randolph, Rowan, Sampson, Union, and Wake Counties, N.C.
Mitigation Work in Anson, Bladen, Cabarrus, Cumberland, Durham, Edgecombe, Green, Halifax, Martin, Moore, Nash, Orange, Pitt, Richmond, Robeson, Scotland, Wake, and Wilson Counties N.C.

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APPENDIX A

YADKIN, INC. ENVIRONMENTAL ASSESSMENT SPECIFICATIONS FOR ALL PROPOSED COMMERCIAL AND SUBDIVISION DEVELOPMENTS

ENVIRONMENTAL ASSESSMENT SPECIFICATIONS FOR ALL PROPOSED COMMERCIAL AND SUBDIVISION DEVELOPMENTS YADKIN, INC. - JANUARY, 1997

An Environmental Assessment (EA) must be prepared and filed as part of any application for a commercial facility license or subdivision approval for development occupying or potentially affecting land or waters within the Federal Energy Regulatory Commission (FERC) project boundary or the adjacent flood easement for the Yadkin Hydroelectric Project (FERC No. 2197). The applicant should refer to the commercial facility and subdivision licensing procedures for a description of application requirements.

The Environmental Assessment must contain the following information.

I. Proposed Development

1. General Description - a detailed description of the proposed development or modification including maps of the proposed project illustrating project boundaries, proposed lot lines and the placement of structures in relation to property boundaries and the reservoir shoreline. In the case of subdivisions, the EA must also include plats of each development phase that have been filed with and/or approved by the county, a description of the anticipated needs of individual property owners for reservoir access and individual access facilities (piers), and a description of provisions for joint or common access to the reservoir (piers, docks, boat launches, beaches, picnic areas, marinas, clubhouses, etc.).
2. Project Need - a description of the purpose and need for the proposed development or modification.
3. Shoreline Impact - a description of the amount and type of impact the proposed project or modification will have on the reservoir shoreline.
4. Required Permits - a listing of all federal, state and local approvals which will be required for the type of development or modification proposed. (All permits/approvals must be obtained prior to filing an application for commercial license with Yadkin.)
5. Shoreline Development Restrictions - a description of any state or local development restrictions which apply to the proposed development including any watershed protection, buffer zone or set back requirements. The EA must indicate how the developer proposes to meet or exceed any such requirements. For subdivisions, the EA must indicate any buffer, set back, landscaping (including tree removal) requirements which will be required of subdivision property owners.

II. Existing Environment

1. Existing Shoreline Characteristics - a description of the shoreline and land area adjacent to the reservoir including a general description of existing land use and condition, shoreline topography, shoreline vegetation, and other notable features.
2. Existing Reservoir Characteristics - a description of the reservoir area adjacent to the proposed development including a detailed map of water depths within 100' of the shoreline, the slope of the reservoir bottom, a description of the reservoir substrate, and a description of any reservoir features including the presence of vegetation and lap trees.

3. Existing Reservoir Access/Facilities - a description of any existing access to the reservoir such as pathways, piers, or boat launches on the property proposed for development, expansion, or modification.

III. Environmental Impacts and Proposed Mitigation

1. Environmental Impacts - a detailed assessment of the potential impact of the proposed development, expansion or modification on the reservoir, shoreline or land area adjacent to the reservoir. This section must at a minimum consider the following effects:
 - a) Change in land use.
 - b) Impact of completed development on the reservoir shoreline.
 - c) Impact on shoreline vegetation and plant communities.
 - d) Impact on wildlife and wildlife habitat.
 - e) Impact on the reservoir as habitat for fish and other aquatic life.
 - f) Impact on wetlands (forested, shrub/scrub, emergent and submerged).
 - g) Impact on reservoir water quality including the potential for increased sedimentation and non-point source pollution from runoff.
2. Recreation Use Impacts - an assessment of the increase in recreational use of the reservoir and reservoir shoreline resulting from the proposed development, and the effects of increased use on the reservoir and shoreline. This section must consider the following:
 - a) An estimate of increased boating and/or other water related recreation use resulting from the proposed development.
 - b) An assessment of the effects that the recreational use resulting from the proposed development or expansion will have on the reservoir and the reservoir shoreline.
3. Mitigation Proposals - a description of any measures proposed by the developer to avoid, reduce or mitigate for impacts to the reservoir and reservoir shoreline which are expected to occur as a result of the proposed development or expansion. This section should also include a discussion of any measures proposed to address concerns raised by federal or state resource agencies.

IV. Consultation Record

The EA must include a record demonstrating that the developer has consulted with federal, state, county and local resource agencies regarding the proposed development, and have received agency concurrence with the proposal. At a minimum this section must include the following:

- a) A list of all consulted agencies.
- b) Copies of any correspondence between the consulted agencies and the developer.
- c) Copies of letters from appropriate resource agencies indicating that they have reviewed the proposed development or expansion and have no concerns, or that their concerns have been adequately addressed by the developer.

V. Applicant Information

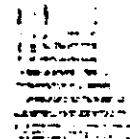
The EA must include a brief description of the background and qualifications of the developer or partnership including the type of business, business experience, and where registered or licensed. This section should also include information on the background and qualifications of the firm which has prepared the EA.

APPENDIX B

**YADKIN, INC SPECIFICATIONS FOR PRIVATE RECREATIONAL USE FACILITIES
HIGH ROCK AND NARROWS RESERVOIRS**

YADKIN, INC. SPECIFICATIONS FOR PRIVATE RECREATIONAL USE FACILITIES HIGH ROCK AND NARROWS RESERVOIRS

Revised 1997 June 02



GENERAL

Yadkin, Inc. permits adjoining property owners on High Rock and Narrows to maintain private recreational use facilities on its reservoirs by license only.

Failure to follow Yadkin's Policies and Procedures may result in revocation of license and loss of private access to the reservoir.

All new construction, additions, repair work and erosion control must be authorized by Yadkin, Inc. An onsite meeting between property owner and Yadkin, Inc. representative is mandatory before Yadkin, Inc. will issue a construction permit. Upon notification and approval from the respective county inspections department, a Yadkin, Inc. representative will complete a final inspection and upon acceptance, a license agreement will be issued.

All construction permits and licenses issued will be done so in accordance with Yadkin's shoreline policies and reservoir management plans.

Applicant can arrange an onsite meeting with a Yadkin, Inc. representative by writing Yadkin, Inc., Post Office Box 576, Badin, NC 28009 and submitting the following: Name, Address, Telephone Number, Development, Section, Lot Number, Tax Map, parcel number and survey or dimensions of lot. If you have a question, you may call 704-422-5680 Tuesday or Thursday. Wednesday and Friday of each week are reserved for onsite inspections.

- | All adjoining lots used for a single residence or under single ownership are considered to be one lot.
- | A house must be under roof on a lot before a construction permit will be granted.
- | License term is May 01 through April 30 annually.

BUFFER

On the Narrows Reservoir and in numerous places on High Rock Reservoir, Yadkin, Inc. owns or administers a buffer strip between the shoreline at normal full pool and the adjoining property. Use of the buffer strip is by permit only. The removal of trees and limbs in the buffer area is by permit only. The construction of a six foot path or walkway through the buffer strip may be permitted by Yadkin for access to a pier. The walkway must lie flat on the ground and may be constructed of pressure treated wood materials, brick or decorative paving blocks. In no circumstance may a watercraft be tied-off to the shoreline bank or pulled onto the buffer area.

PIER

All piers must meet the North Carolina State Building Code Standards (Volume I and Volume I-B) and any additional requirements set by Yadkin, Inc. as listed below. Yadkin, Inc.'s requirements may exceed the North Carolina State Building Standards.

- ... floating piers only. First twenty-eight feet from shoreline may be of stationary construction, remainder of pier must be able to float and move with the rise and fall of the reservoir's water level.
- B. Pier must have access to minimum water depth of eight feet (8').
- C. Pier Dimensions (see diagram on page 4):
1. Maximum width -- ten feet (10'); minimum width -- four feet (4').
 2. Maximum length -- up to seventy-five feet (75') or twenty-five percent (25%) width of the cove at maximum normal pool elevation, whichever is less, minimum cove width 100 feet.
 3. Maximum floating dock platform -- thirty-two by twenty feet (32'x20').
- D. Pier should be located as near as possible to the middle of applicants lot(s) and the pier should not encroach across the projected adjacent property lines, except for shared pier.
- E. All piers must be built above the 655 foot contour, High Rock Reservoir, Yadkin, Inc. datum, and 541 foot contour, Narrows Reservoir, Yadkin, Inc. datum.
- F. Pier may be constructed of pressure treated lumber and pilings, grade marked by the American Wood Preservers' Bureau. Other materials made specifically for docks or piers may be used with the written approval of Yadkin, Inc. Manufactured plastic-encased floatation devices will be permitted as floatation.
- G. Piers shall not interfere with navigation, ingress or egress to adjoining properties, or in any manner present a safety hazard.
- H. Two-inch (2") minimum diameter blue colored reflectors are to be placed at ten foot (10') intervals along sides of pier.
- I. Handrails shall be installed on stationary and walkway ramp sections of pier.
- J. Lifts -- Boat lift and canvas boat lift cover suitable for installation are permitted for private pier structures that are in compliance with Yadkin's current Specifications. Personal Watercraft lifts may be permitted on stationary sections of compliant structures for private and shared piers.
- K. Lot Widths -- An individual pier may be permitted on a waterfront lot or lot joining Company buffer strip as measured at the shoreline full pool with 200 feet of shoreline (as measured at the 541 foot contour Yadkin, Inc. datum, Narrows Reservoir and 655 foot contour Yadkin, Inc. datum, High Rock Reservoir). For subdivisions developed prior to May 1, 1987, an individual pier may be granted for a lot with 100 feet of shoreline (as measured above).
- L. Shared Pier -- Two adjoining waterfront lots of 100 feet minimum shoreline width each may have a shared pier (measurement as described in K above).

ELECTRICAL INSTALLATION

All installation must meet or exceed minimum National Electrical Code (N.E.C.) Standards for Wet Location, Marinas and Boatyards (Article 555) and any additional requirements set by Yadkin, Inc, as indicated below.

- A. General Guidelines
1. All breakers, cables, cords and receptacles must be sited to accommodate all service needs.
 2. N.C. State Law requires that a licensed electrician perform installation.
 3. All work must be inspected and approved by County Inspections Department.

- B. Installation from property line across Alcoa property above the 655 foot contour High Rock Reservoir, Yadkin, Inc. datum and a 541 foot contour Narrows Reservoir, Yadkin, Inc. datum to shoreline service pole, must be underground and follow access path (no overhead writing).
- C. Service Pole
1. Cannot be set below elevation 655 foot contour High Rock Reservoir, Yadkin, Inc. datum or 541 foot contour Narrows Reservoir, Yadkin, Inc. datum.
 2. Minimum size six inches (6") square or six inch (6") diameter, 12 feet (12') high and anchored three feet (3") in the ground.
 3. Preservative-treated wooden posts grade-marked by the American Wood Preservers' Bureau.
- D. Shoreline Breaker Box must be no less than five feet (5') above the 655 foot contour High Rock Reservoir Yadkin, Inc. datum and 541 foot contour Narrows Reservoir Yadkin, Inc. datum.
- E. Receptacle Height
1. On boat dock -- minimum three feet (3') above the deck on floating dock, five feet (5') on stationary dock.
 2. On service post -- minimum five feet (5') above 655 foot contour High Rock Reservoir Yadkin, Inc. datum and 541 foot contour Narrows Reservoir Yadkin, Inc. datum.
- F. Lighting
1. Preservative-treated posts, grade-marked by the American Wood Preservers' Bureau.
 2. Lights on poles on land must be at least twelve feet (12') above ground. Lights on poles mounted on docks must be at least eight feet (8') above the dock.
 3. Fixtures and lights must be approved for wet locations and shall not be mounted to extend beyond the outer perimeter of the boat dock.
 4. All lighting must be aimed downward.

EROSION CONTROL

In cases of severe erosion, retaining walls/rip rap material may be permitted on a case by case basis.

Name _____ Telephone No. _____

Mail address: _____ State _____ Zip _____

Lot No. _____ Parcel No. _____ Section _____ Tax Map _____

**To request an "Application for Private Recreational Use Facilities" form, please fill out the information above and mail to Yadkin, Inc., P.O. Box 576, Badin, NC 28009. Please include a survey/sketch of your lot(s). Yadkin will contact you to arrange an onsite meeting.

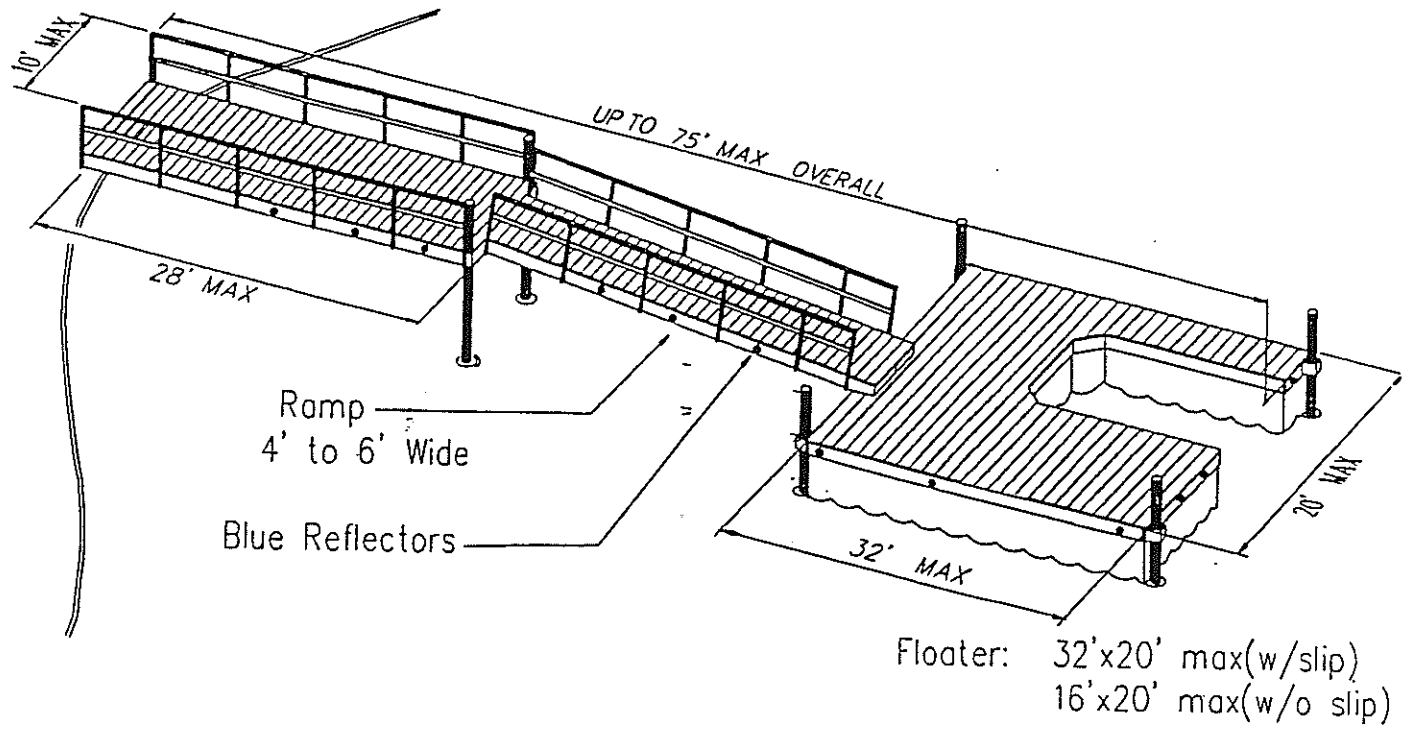
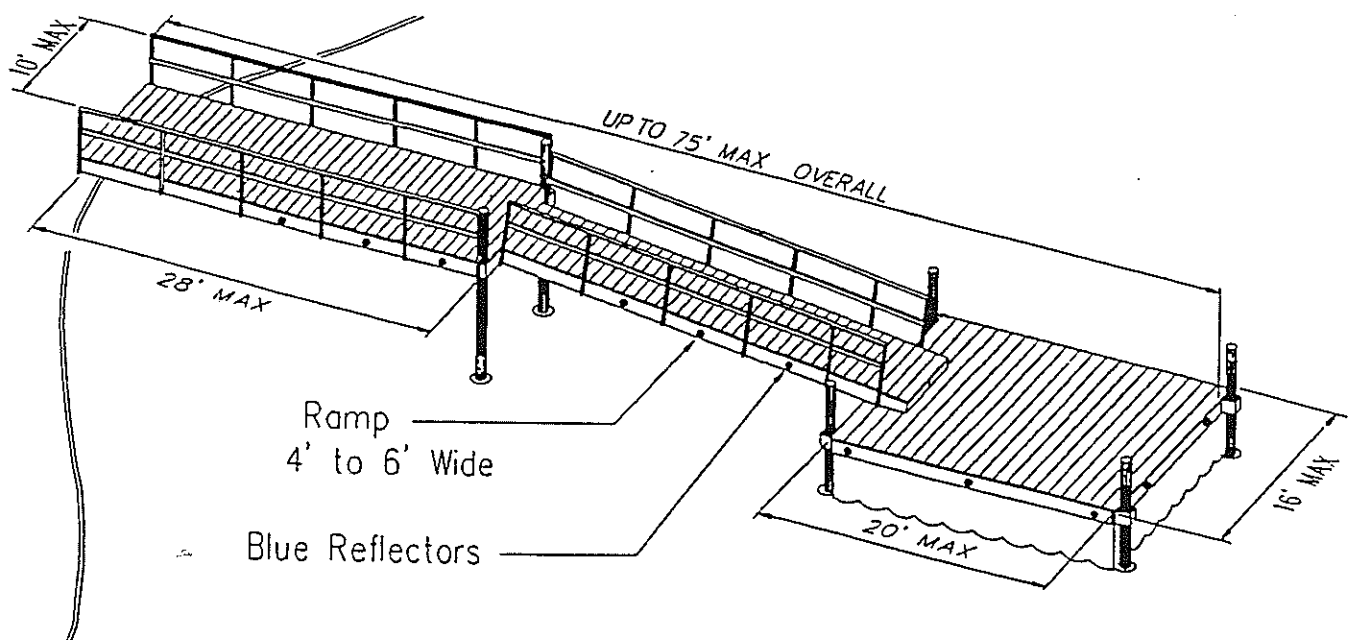


DIAGRAM B: Shared Pier Design



Yadkin, Inc.
Private Recreation Facilities Specifications Summary
Lot Widths and Water Depths

PRIVATE PIERS			
Development Platted/Recorded after May 1987			
	1997	1993	1988
Minimum shoreline lot width requirement for new development	200'	200'	200'
Minimum water depth requirement for new development	8' at 75'	8' at 30'	8' at 30'
Maximum pier length for new development	75'	44'	40'
Development Platted/Recorded Prior to May 1987			
	1997	1993	1988
Minimum shoreline lot width requirement for lots with no existing pier	100'	100'	No minimum requirement
Minimum water depth requirement for lots with no existing pier	8' at 75'	8' at 64'	8' at 75'
SHARED PIERS			
	1997	1993	1988
Shared minimum shoreline lot width requirement for shared pier (two 100' lots)	200'	200'	200'
Minimum water depth requirement for shared pier (two 100' lots)	8' at 75'	8' at 30'	8' at 30'
Maximum shared pier length	75'	44'	40'
ALL EXISTING LICENSED PIERS AND REPLACEMENT STRUCTURES are exempt from minimum shoreline width and minimum water depth requirements			

**SUMMARY OF CHANGE
COMPLIANCE SCHEDULE FOR
PRIVATE RECREATIONAL USE FACILITIES
CONSTRUCTED BEFORE 1988 JANUARY 01
(Mailed to Licensees January 1988)**

Summarized below are recent revisions to the private recreational facility compliance schedule which was originally established January 01, 1988. Many of the 1997 compliance schedule revisions were made in response to written and verbal comments received from homeowners associates following meetings with homeowners associations which were held in 1996 and early 1997. For most facilities, the revised compliance schedule extends the deadline for facility compliance until December 31, 2005.

	Complying / Extension as of May-97	Compliance Schedule January Jan-88
■ Electrical	Complying	1990
■ Remove Sides — Enclosed Structures	Complying	1995
■ Covered, Roofed Structures	12/31/2005	2005
■ Transfer of Covered Roofed Structures	12/31/2005	2000
■ Repair - Covered Roofed Structures	12/31/2005	2000
■ Removal of Existing Sun Decks	12/31/2005	2000
■ Transfer of Sun Decks	12/31/2005	2000
■ Guardrails and Reflectors	Complying	1988
■ Dredging	Not Permitted	Not Permitted
■ Excavation	Not Permitted	Permitted
■ Non-Floating Structures	12/31/2005	2005
■ Transfer Non-Floating Structures	12/31/2005	2000

Please remember that failure to follow Yadkin's Policies and Procedures may result in revocation of license and loss of private access to water. Yadkin will not permit the transfer of any unauthorized facility or any facility constructed after January 1988 that was not built to applicable specifications to a new owner until such facilities have been brought into compliance with current specifications.

APPENDIX C

COUNTY HEALTH DEPARTMENT PERMITS

Montgomery County Health Department

Environmental Health Section

Applicant: KEJ Marketing Permit Number: 98300
Owner: KEJ Marketing PIN #:
Proposed Use: House Water Supply: private
Subdivision or SR#: Heron Bay Lot: 57 Section #: 10 Map #:
Remarks:

Improvement Permit

New System Design Flow: 360 GPD Type of Wastewater domestic
Bedrooms: 3 Occupants: Basement Yes Basement Fixtures: No
Employees: NA # of Seats NA Type of System: Innovative
LTAR for Initial System: 0.30 GPD/Sq. Ft. Septic Tank 900 Gallon Pump Tank 900 Gallon
Inch Length: 300 linear ft Depth: 24 in. Width: 36 in. Total Stone Depth: NA
Repair System: Innovative LTAR for Repair System: 0.30 GPD/Sq. Ft.

Improvement Permit Conditions

System must be polystyrene aggregate or chamber, install per
manufacturers specifications

This permit is a site approval for the future installation of an on-site wastewater system and is subject to revocation if the site plans or intended use changes from those shown above or on the application. This Improvement Permit must be accompanied by a construction authorization prior to obtaining any building permits and before the wastewater system is installed. This improvement is valid for a period of five years unless otherwise noted.

Improvement Permit Issued By: David W. Zell A.S. Date: 6/26/98

Authorization For Wastewater System Construction

This Authorization For Wastewater System Construction is valid for 5 years (60 months) from the date of issuance. (1) Wastewater system construction and installation must meet all conditions and specifications as set forth in the above Improvement Permit and attached site plan with system details. Construction and installation must also meet all requirements set forth in the Rules governing Sanitary Sewage Collection, Treatment, And Disposal Systems and any other applicable rules and laws. (2) The wastewater system shall not be covered or placed into use until inspected by the Montgomery County Health Department and an operation permit issued. (3) Any alteration in site or soil conditions (including location of structures and appurtenances) or modifications in use, wastewater flow, or wastewater characteristics as specified in the associated Improvement Permit and application, may subject this Authorization and associated permit(s) to revocation.

Construction Authorization Conditions

Keep system shallow and follow contour, install pump per attached
diagram, keep all parts of system at least 100' from any well

Number of Attachment 2
Construction Authorization By: David W. Zell A.S. Date: 6/26/98

Montgomery County Health Department

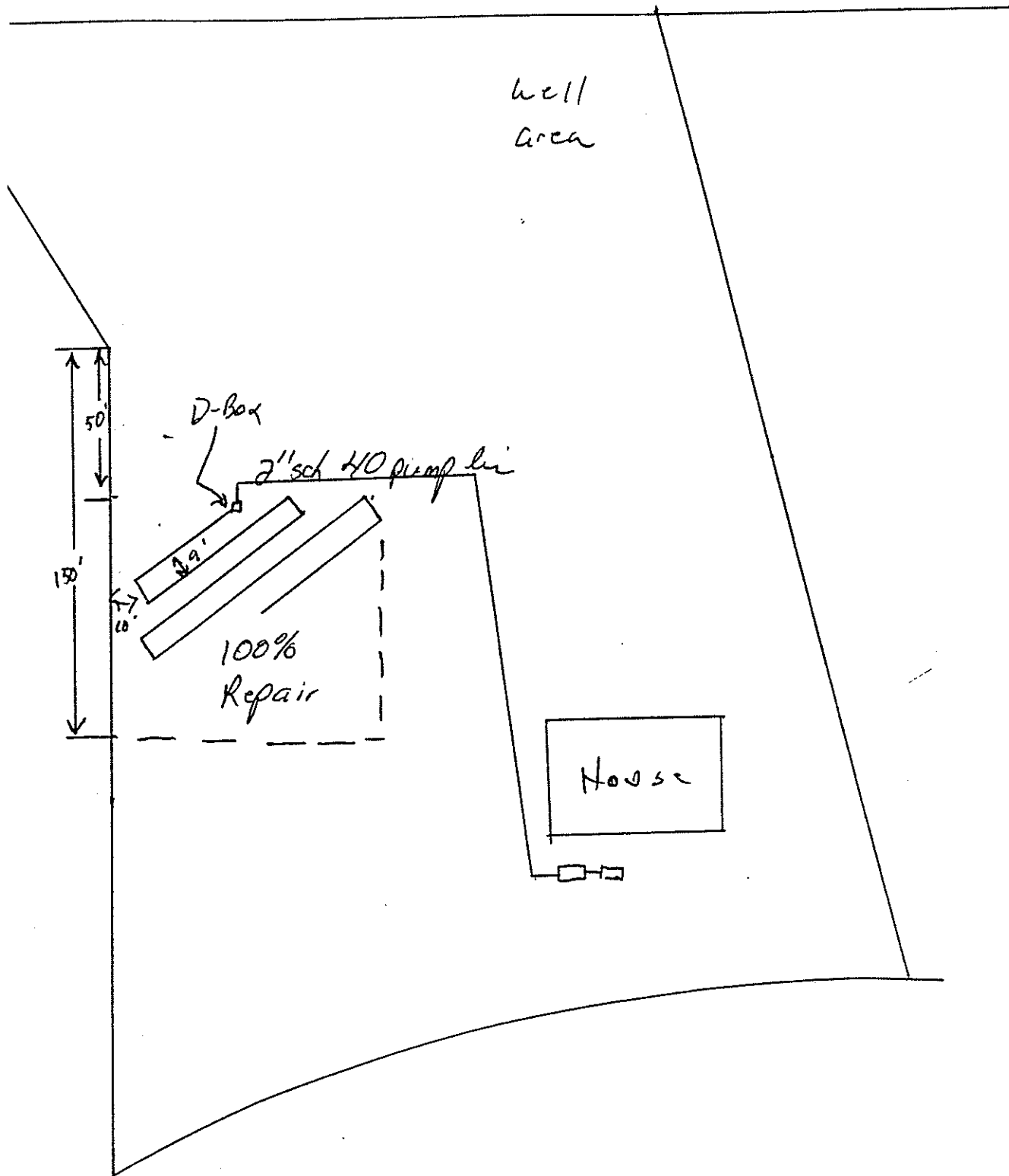
Environmental Health Section

ant: HED Marketing

Site Plan

Permit Number: 98300

- 1" = 50'



Montgomery County Health Department

Environmental Health Section

Applicant: KEJ Marketing Permit Number: 98-99
Owner: KEJ Marketing PIN #: _____
Proposed Use: House Water Supply: private
Division or SR#: Heron Bay Lot: 56 Section #: 10 Map #: _____
Actions: _____

Improvement Permit

Flow: _____ System Design Flow: 360 GPD Type of Wastewater: domestic
Rooms: 3 Occupants: _____ Basement: Yes Basement Fixtures: No
Employees: NA # of Seats: NA Type of System: Pump Conventional
LTAR for Initial System: 0.30 GPD/Sq. Ft. Septic Tank: 900 Gallon Pump Tank: 900 Gallon
Inch Length: 400 linear ft Depth: 24 in. Width: 36 in. Total Stone Depth: 12 in.
Repair System: Pump Conventional LTAR for Repair System: 0.30 GPD/Sq. Ft.

Improvement Permit Conditions

This permit is a site approval for the future installation of an on-site wastewater system and is subject to revocation if the site plans or intended use changes from those shown above or on the application. This Improvement Permit must be accompanied by a construction authorization prior to obtaining any building permits and before the wastewater system is installed. This improvement permit is valid for a period of five years unless otherwise noted.

Improvement Permit Issued By: David W. Zipp R.S. Date: 6/26/98

Authorization For Wastewater System Construction

Authorization For Wastewater System Construction is valid for 5 years (60 months) from the date of issuance. (1) Wastewater system construction and installation must meet all conditions and specifications as set forth in the above Improvement Permit and attached site plan with system details. Construction and installation must also meet all requirements set forth in the Rules governing Sanitary Sewage Collection, Treatment, And Disposal Systems and any other applicable rules and laws. (2) The wastewater system shall not be covered or placed into use until inspected by the Montgomery County Health Department and an Authorization Permit issued. (3) Any alteration in site or soil conditions (including location of structures and appurtenances) or modifications in use, wastewater flow, or wastewater characteristics as specified in the associated Improvement Permit and installation, may subject this Authorization and associated permit(s) to revocation.

Construction Authorization Conditions

Keep system shallow and follow contour. install pump per attached diagram, keep all parts of system at least 100' from any well

Number of Attachment: 2
Construction Authorization By: David W. Zipp R.S. Date: 6/26/98

Montgomery County Health Department

Environmental Health Section

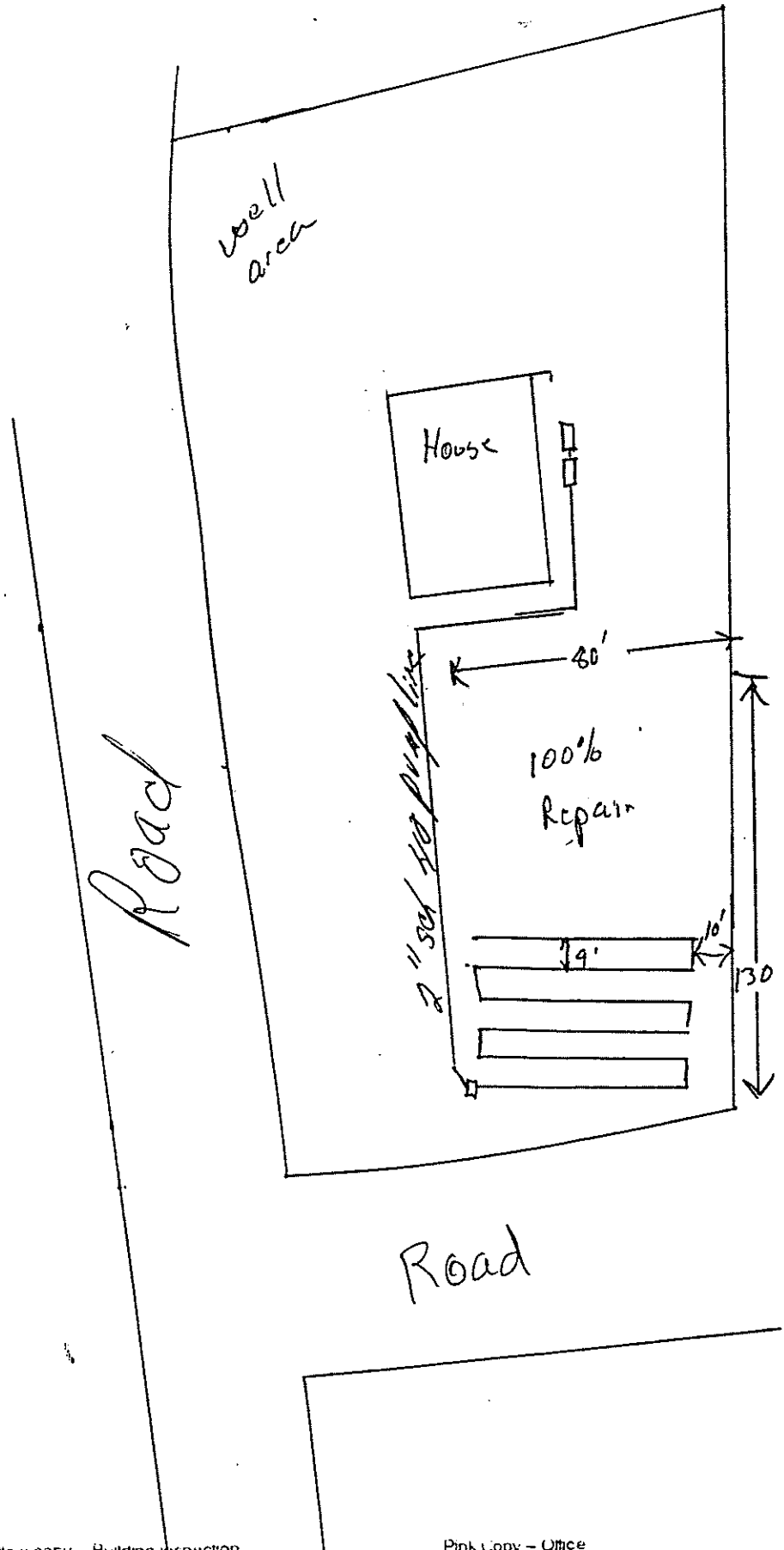
cont: KEG Marketing

Site Plan

Permit Number: _

20259

1" = ~~10~~ 50'



Montgomery County Health Department

Environmental Health Section

Applicant: KEJ Marketing Permit Number: 98298
Owner: KEJ Marketing PIN #:
Proposed Use: House Water Supply: private
Subdivision or SR#: Heron Bay Lot: 55 Section #: 10 Map #:
Directions:

Improvement Permit

New System Design Flow: 360 GPD Type of Wastewater domestic
Bedrooms: 3 Occupants: Basement Yes Basement Fixtures: No
Employees: NA # of Seats NA Type of System: Pump ~~Conventional~~ ^{Innovative}
LTAR for Initial System: 0.30 GPD/Sq. Ft. Septic Tank 900 Gallon Pump Tank 900 Gallon
Trench Length: 100-300 linear ft Depth: 18 in. Width: 36 in. Total Stone Depth: 42 in.
Repair System: Pump ~~Conventional~~ ^{Innovative} LTAR for Repair System: 0.30 GPD/Sq. Ft.

Improvement Permit Conditions

System must be polystyrene Aggregate or chambers,
Install per manufacturer's spec.

This permit is a site approval for the future installation of an on-site wastewater system and is subject to revocation if the site plans or intended use changes from those shown above or on the application. This Improvement Permit must be accompanied by a construction authorization prior to obtaining any building permits and before the wastewater system is installed. This improvement is valid for a period of five years unless otherwise noted.

Improvement Permit Issued By: David Weyll R.S. Date: 6/26/98

Authorization For Wastewater System Construction

This Authorization For Wastewater System Construction is valid for 5 years (60 months) from the date of issuance. (1) Wastewater system construction and installation must meet all conditions and specifications as set forth in the above Improvement Permit and the attached site plan with system details. Construction and installation must also meet all requirements set forth in the Rules governing Sanitary Sewage Collection, Treatment, and Disposal Systems and any other applicable rules and laws. (2) The wastewater system shall not be covered or placed into use until inspected by the Montgomery County Health Department and an operation permit issued. (3) Any alteration in site or soil conditions (including location of structures and appurtenances) or modifications in use, wastewater flow, or wastewater characteristics as specified in the associated Improvement Permit and application, may subject this Authorization and associated permit(s) to revocation.

Construction Authorization Conditions

sewer system shallow and follow contour, install pump per attached
diagram, keep all parts of system at least 100' from any well
6-8" of ~~soil~~ additional cover over system is required

Number of Attachment 2
Construction Authorization By: David Weyll R.S. Date: 6/26/98

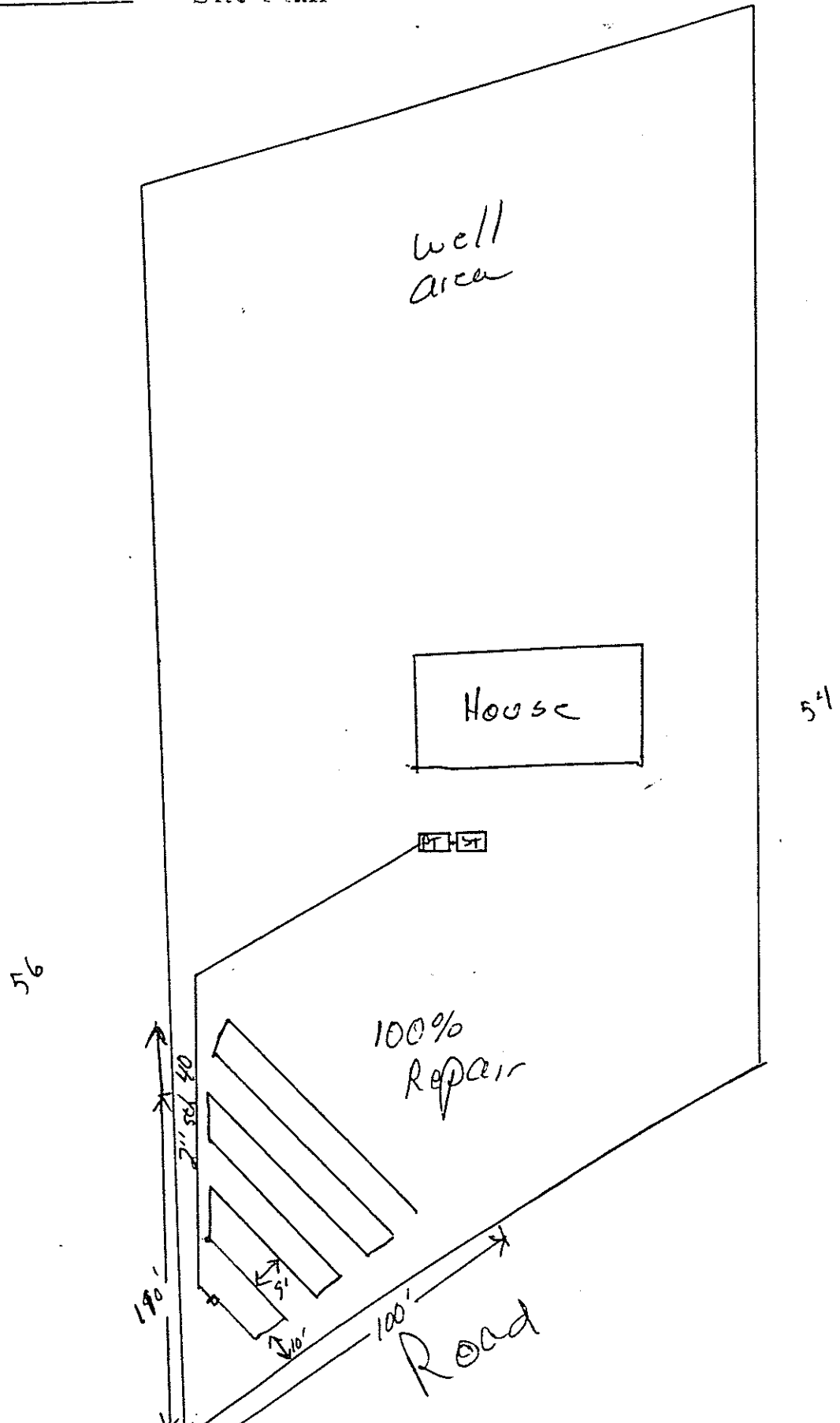
Montgomery County Health Department Environmental Health Section

licant: EEJ Marketing

Site Plan

Permit Number: 98-198

Scale - 1" = 40'



Montgomery County Health Department

Environmental Health Section

Applicant: KEJ Marketing Permit Number: 98197
Owner: KEJ Marketing PIN #: _____
Proposed Use: House Water Supply: private
Division or SR#: Heron Bay Lot: 54 Section #: 10 Map #: _____
Actions: _____

Improvement Permit

Flow: _____ System Design Flow: 360 GPD Type of Wastewater: domestic
Rooms: 3 Occupants: _____ Basement: Yes Basement Fixtures: No
Employees: NA # of Seats: NA Type of System: Innovative
LTAR for Initial System: 0.30 GPD/Sq. Ft. Septic Tank: 900 Gallon Pump Tank: 900 Gallon
Inch Length: 300 linear ft Depth: 18 in. Width: 36 in. Total Stone Depth: NA
Drain System: Low Pressure Pipe LTAR for Repair System: 0.10 GPD/Sq. Ft.

Improvement Permit Conditions

System must be polystyrene aggregate or chamber, install per
manufacturers specifications

This permit is a site approval for the future installation of an on-site wastewater system and is subject to revocation if the site plans or
proposed use changes from those shown above or on the application. This Improvement Permit must be accompanied by a
construction authorization prior to obtaining any building permits and before the wastewater system is installed. This improvement
permit is valid for a period of five years unless otherwise noted.

Improvement Permit Issued By: D. David Nygell P.S. Date: 6/26/98

Authorization For Wastewater System Construction

Authorization For Wastewater System Construction is valid for 5 years (60 months) from the date of issuance. (1) Wastewater
system construction and installation must meet all conditions and specifications as set forth in the above Improvement Permit and
attached site plan with system details. Construction and installation must also meet all requirements set forth in the Rules
governing Sanitary Sewage Collection, Treatment, And Disposal Systems and any other applicable rules and laws. (2) The
wastewater system shall not be covered or placed into use until inspected by the Montgomery County Health Department and an
operation permit issued. (3) Any alteration in site or soil conditions (including location of structures and appurtenances) or
variations in use, wastewater flow, or wastewater characteristics as specified in the associated Improvement Permit and
canon, may subject this Authorization and associated permit(s) to revocation.

Construction Authorization Conditions

System shall and follow contour, 100' separation from any well, six
eight inches of additional cover is required over system

Number of Attachment: 2
Construction Authorization By: D. David Nygell P.S. Date: 6/26/98

Montgomery County Health Department

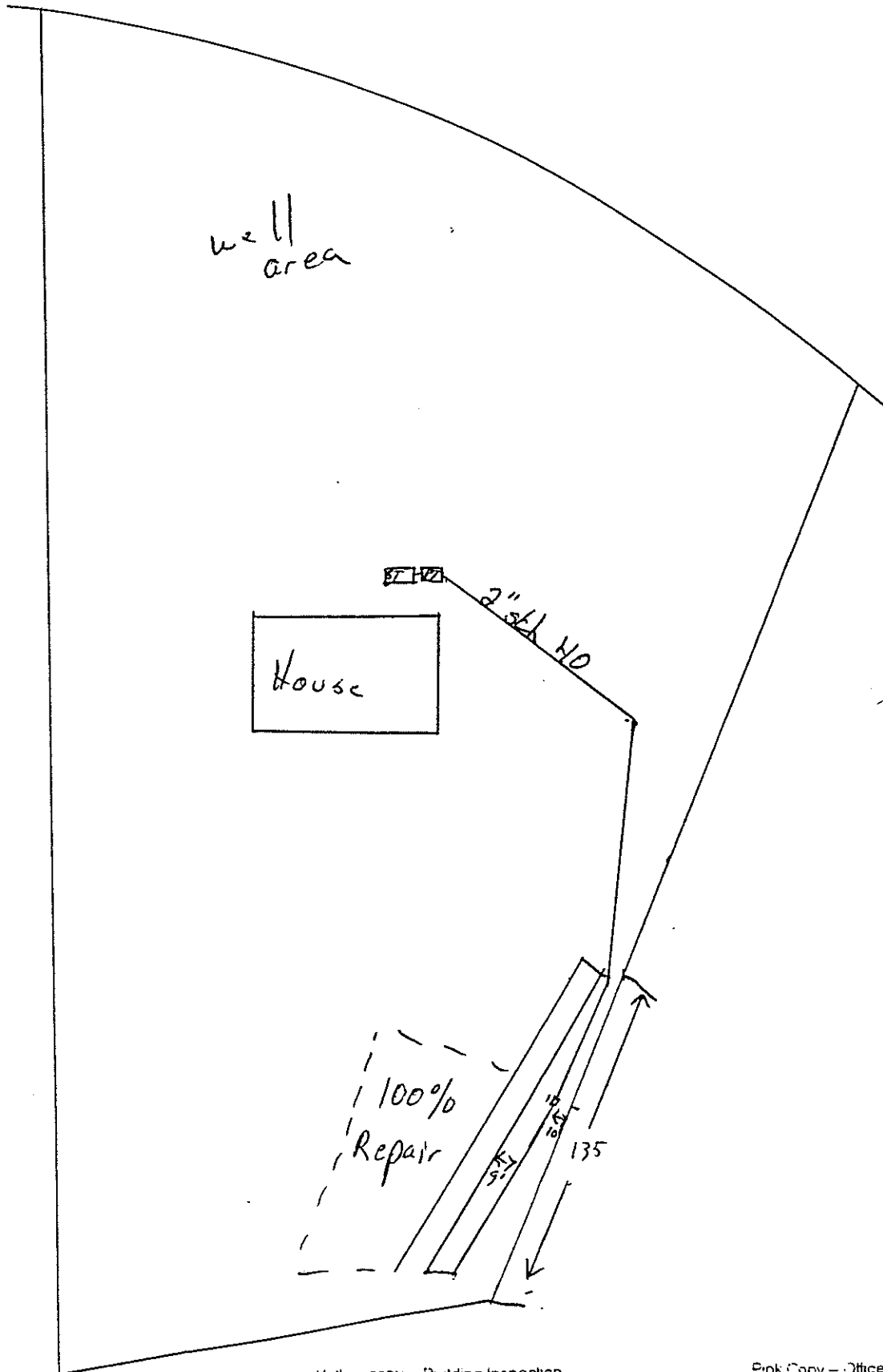
Environmental Health Section

Applicant: SEJ Marketing

Site Plan

Permit Number: 98227

Scale - 1" = 60'



Montgomery County Health Department

Environmental Health Section

Applicant: KEJ Marketing Permit Number: 98296
Address: KEJ Marketing PIN #: _____
Proposed Use: House Water Supply: private
Division or SR#: Heron Bay Lot: 53 Section #: 10 Map #: _____
Notes: _____

Improvement Permit

System Design Flow: 360 GPD Type of Wastewater: domestic
Rooms: 3 Occupants: _____ Basement: Yes Basement Fixtures: No
Employees: NA # of Seats: NA Type of System: Pump Conventional
Rate for Initial System: 0.30 GPD/Sq. Ft. Septic Tank: 900 Gallon Pump Tank: 900 Gallon
Inch Length: 400 linear ft Depth: 24 in. Width: 36 in. Total Stone Depth: 12 in.
Air System: Pump Conventional LTAR for Repair System: 0.30 GPD/Sq. Ft.

Improvement Permit Conditions

This permit is a site approval for the future installation of an on-site wastewater system and is subject to revocation if the site plans or intended use changes from those shown above or on the application. This Improvement Permit must be accompanied by a construction authorization prior to obtaining any building permits and before the wastewater system is installed. This improvement permit is valid for a period of five years unless otherwise noted.

Improvement Permit Issued By: David W. R. S. Date: 6/26/98

Authorization For Wastewater System Construction

Authorization For Wastewater System Construction is valid for 5 years (60 months) from the date of issuance. (1) Wastewater system construction and installation must meet all conditions and specifications as set forth in the above Improvement Permit and attached site plan with system details. Construction and installation must also meet all requirements set forth in the Rules and Regulations for Sanitary Sewage Collection, Treatment, And Disposal Systems and any other applicable rules and laws. (2) The wastewater system shall not be covered or placed into use until inspected by the Montgomery County Health Department and an authorization permit issued. (3) Any alteration in site or soil conditions (including location of structures and appurtenances) or modifications in use, wastewater flow, or wastewater characteristics as specified in the associated Improvement Permit and authorization, may subject this Authorization and associated permit(s) to revocation.

Construction Authorization Conditions

System shall be shallow and follow contour, install pump per attached diagram, keep all parts of system at least 100' from any well

Number of Attachment: 2
Construction Authorization By: David W. R. S. Date: 6/26/98

Montgomery County Health Department

Environmental Health Section

Applicant: KEJ Marketing Permit Number: 98295
Owner: KEJ Marketing PIN #: _____
Proposed Use: House Water Supply: private
Division or SR#: Heron Bay Lot: 52 Section #: 10 Map #: _____
Actions: _____

Improvement Permit

Flow: _____ System Design Flow: 360 GPD Type of Wastewater: domestic
Rooms: 3 Occupants: _____ Basement: Yes Basement Fixtures: No
Employees: NA # of Seats: NA Type of System: Pump Conventional
LTAR for Initial System: 0.30 GPD/Sq. Ft. Septic Tank: 900 Gallon Pump Tank: 900 Gallon
Inch Length: 400 linear ft Depth: 22 in. Width: 36 in. Total Stone Depth: 12 in.
Repair System: Pump Conventional LTAR for Repair System: 0.30 GPD/Sq. Ft.

Improvement Permit Conditions

This permit is a site approval for the future installation of an on-site wastewater system and is subject to revocation if the site plans or intended use changes from those shown above or on the application. This Improvement Permit must be accompanied by a construction authorization prior to obtaining any building permits and before the wastewater system is installed. This improvement permit is valid for a period of five years unless otherwise noted.

Improvement Permit Issued By: David Weyll R.S. Date: 6/26/98

Authorization For Wastewater System Construction

Authorization For Wastewater System Construction is valid for 5 years (60 months) from the date of issuance. (1) Wastewater system construction and installation must meet all conditions and specifications as set forth in the above Improvement Permit and attached site plan with system details. Construction and installation must also meet all requirements set forth in the Rules and Regulations for Sanitary Sewage Collection, Treatment, And Disposal Systems and any other applicable rules and laws. (2) The wastewater system shall not be covered or placed into use until inspected by the Montgomery County Health Department and an authorization permit issued. (3) Any alteration in site or soil conditions (including location of structures and appurtenances) or modifications in use, wastewater flow, or wastewater characteristics as specified in the associated Improvement Permit and conditions, may subject this Authorization and associated permit(s) to revocation.

Construction Authorization Conditions

Keep system shallow and follow contour, install pump per attached diagram, keep all parts of system at least 100' from any well

Number of Attachment: 2
Construction Authorization By: David Weyll R.S. Date: 6/26/98

Montgomery County Health Department

Environmental Health Section

Applicant: KEJ Marketing Permit Number: 98094
Owner: KEJ Marketing PIN #: _____
Proposed Use: House Water Supply: private
Subdivision or SR#: Heron Bay Lot: 51 Section #: 10 Map #: _____
Remarks: _____

Improvement Permit

Flow: _____ System Design Flow: 360 GPD Type of Wastewater: domestic
Bedrooms: 3 Occupants: _____ Basement: Yes Basement Fixtures: No
Employees: NA # of Seats: NA Type of System: Innovative
LTAR for Initial System: 0.30 GPD/Sq. Ft. Septic Tank: 900 Gallon Pump Tank: 900 Gallon
 trench Length: 300 linear ft Depth: 18 in. Width: 36 in. Total Stone Depth: NA
Repair System: Innovative LTAR for Repair System: 0.30 GPD/Sq. Ft.

Improvement Permit Conditions

st install polystyren aggregate or chamber system, install per
manufacturers specifications, must have 12 inches of cover over system

This permit is a site approval for the future installation of an on-site wastewater system and is subject to revocation if the site plans or intended use changes from those shown above or on the application. This Improvement Permit must be accompanied by a construction authorization prior to obtaining any building permits and before the wastewater system is installed. This improvement permit is valid for a period of five years unless otherwise noted.

Improvement Permit Issued By: David Weyell R.S. Date: 6/26/98

Authorization For Wastewater System Construction

Authorization For Wastewater System Construction is valid for 5 years (60 months) from the date of issuance. (1) Wastewater system construction and installation must meet all conditions and specifications as set forth in the above Improvement Permit and attached site plan with system details. Construction and installation must also meet all requirements set forth in the Rules and Regulations for Sanitary Sewage Collection, Treatment, And Disposal Systems and any other applicable rules and laws. (2) The wastewater system shall not be covered or placed into use until inspected by the Montgomery County Health Department and an authorization permit issued. (3) Any alteration in site or soil conditions (including location of structures and appurtenances) or changes in use, wastewater flow, or wastewater characteristics as specified in the associated Improvement Permit and associated permits, may subject this Authorization and associated permits to revocation.

Construction Authorization Conditions

system shallow and follow contour, install pump per attached
gram, keep all parts of system at least 100' from any well

Number of Attachments: 2
Construction Authorization By: David Weyell R.S. Date: 6/26/98

Montgomery County Health Department Environmental Health Section

Applicant: KEJ Marketing

Site Plan

Permit Number: 98294

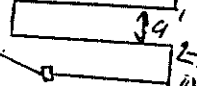
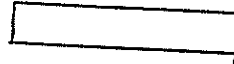
1" = 60'

well
area



2 1/2" sch
40 pump line

100%
Repair



Cut-de-Sac

Montgomery County Health Department

Environmental Health Section

Applicant: KEJ Marketing Permit Number: 98193
Owner: KEJ Marketing PIN #: _____
Proposed Use: House Water Supply: private
Division or SR#: Heron Bay Lot: 50 Section #: 10 Map #: _____
Revisions: _____

Improvement Permit

Flow: _____ System Design Flow: 360 GPD Type of Wastewater: domestic
Bedrooms: 3 Occupants: _____ Basement: Yes Basement Fixtures: No
Employees: NA # of Seats: NA Type of System: Conventional
LTAR for Initial System: 0.30 GPD/Sq. Ft. Septic Tank: 900 Gallon Pump Tank: NA Gallon
Inch Length: 400 linear ft Depth: 24 in. Width: 36 in. Total Stone Depth: 12 in.
Inlet System: Conventional LTAR for Repair System: 0.30 GPD/Sq. Ft.

Improvement Permit Conditions

This permit is a site approval for the future installation of an on-site wastewater system and is subject to revocation if the site plans or intended use changes from those shown above or on the application. This Improvement Permit must be accompanied by a construction authorization prior to obtaining any building permits and before the wastewater system is installed. This improvement permit is valid for a period of five years unless otherwise noted.

Improvement Permit Issued By: David Weyell R.S. Date: 6/26/98

Authorization For Wastewater System Construction

Authorization For Wastewater System Construction is valid for 5 years (60 months) from the date of issuance. (1) Wastewater system construction and installation must meet all conditions and specifications as set forth in the above Improvement Permit and attached site plan with system details. Construction and installation must also meet all requirements set forth in the Rules and Regulations for Sanitary Sewage Collection, Treatment, and Disposal Systems and any other applicable rules and laws. (2) The wastewater system shall not be covered or placed into use until inspected by the Montgomery County Health Department and an Improvement Permit issued. (3) Any alteration in site or soil conditions (including location of structures and appurtenances) or changes in use, wastewater flow, or wastewater characteristics as specified in the associated Improvement Permit and construction authorization, may subject this Authorization and associated permit(s) to revocation.

Construction Authorization Conditions

1. System shall follow contour, install pump per attached plan, keep all parts of system at least 100' from any well

Number of Attachment: _____
Construction Authorization By: David Weyell R.S. Date: _____

Montgomery County Health Department

Environmental Health Section

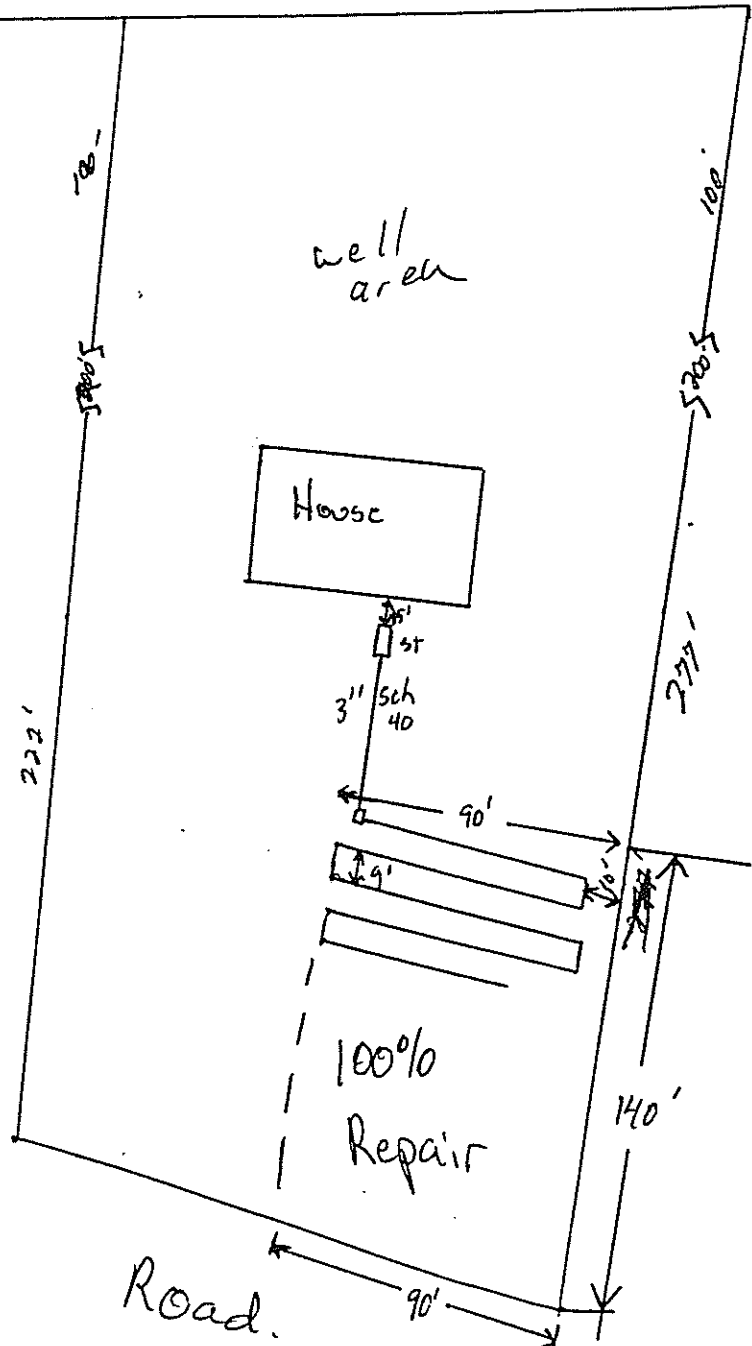
Applicant: RED Marketing

Site Plan

Permit Number:

98293

Scale - 1" = 60'



Montgomery County Health Department

Environmental Health Section

Applicant: KEJ Markering Permit Number: 98292
Owner: KEJ Markering PIN #: _____
Proposed Use: House Water Supply: private
Division or SR#: Heron Bay Lot: 49 Section #: 10 Map #: _____
Sections: _____

Improvement Permit

System Design Flow: 360 GPD Type of Wastewater: domestic
Rooms: 3 Occupants: _____ Basement: No Basement Fixtures: No
Employees: NA # of Seats: NA Type of System: Pump Conventional
LTAR for Initial System: 0.30 GPD/Sq. Ft. Septic Tank: 900 Gallon Pump Tank: 900 Gallon
Inch Length: 400 linear ft Depth: 24 in. Width: 36 in. Total Stone Depth: 12 in.
Inch Air System: Pump Conventional Innovative LTAR for Repair System: 0.30 GPD/Sq. Ft.

Improvement Permit Conditions

This permit is a site approval for the future installation of an on-site wastewater system and is subject to revocation if the site plans or intended use changes from those shown above or on the application. This Improvement Permit must be accompanied by a construction authorization prior to obtaining any building permits and before the wastewater system is installed. This improvement permit is valid for a period of five years unless otherwise noted.

Improvement Permit Issued By: David Weyell R.S. Date: 6/26/98

Authorization For Wastewater System Construction

Authorization For Wastewater System Construction is valid for 5 years (60 months) from the date of issuance. (1) Wastewater system construction and installation must meet all conditions and specifications as set forth in the above Improvement Permit and attached site plan with system details. Construction and installation must also meet all requirements set forth in the Rules and Regulations for Sanitary Sewage Collection, Treatment, And Disposal Systems and any other applicable rules and laws. (2) The wastewater system shall not be covered or placed into use until inspected by the Montgomery County Health Department and an authorization permit issued. (3) Any alteration in site or soil conditions (including location of structures and appurtenances) or changes in use, wastewater flow, or wastewater characteristics as specified in the associated Improvement Permit and application, may subject this Authorization and associated permit(s) to revocation.

Construction Authorization Conditions

System shallow and follow contour, install pump per attached
plan, keep all parts of system at least 100' from any well

Number of Attachment: 2
Construction Authorization By: David Weyell R.S. Date: 6/26/98

Montgomery County Health Department

Environmental Health Section

Applicant: KEJ Marketing Permit Number: 98291
Address: KEJ Marketing PIN #: _____
Proposed Use: House Water Supply: private
Division or SR#: Heron Bay Lot: 48 Section #: 10 Map #: _____
Remarks: _____

Improvement Permit

System Design Flow: 360 GPD Type of Wastewater: domestic
Rooms: 3 Occupants: _____ Basement: Yes Basement Fixtures: No
Employees: NA # of Seats: NA Type of System: Pump Conventional
LAR for Initial System: 0.30 GPD/Sq. Ft. Septic Tank: 900 Gallon Pump Tank: 900 Gallon
Inch Length: 400 linear ft Depth: 24 in. Width: 36 in. Total Stone Depth: 12 in.
Repair System: Pump Conventional LTAR for Repair System: 0.30 GPD/Sq. Ft.

Improvement Permit Conditions

This permit is a site approval for the future installation of an on-site wastewater system and is subject to revocation if the site plans or intended use changes from those shown above or on the application. This Improvement Permit must be accompanied by a construction authorization prior to obtaining any building permits and before the wastewater system is installed. This improvement permit is valid for a period of five years unless otherwise noted.

Improvement Permit Issued By: Dave Wyll R.S. Date: 6/26/98

Authorization For Wastewater System Construction

This Authorization For Wastewater System Construction is valid for 5 years (60 months) from the date of issuance. (1) Wastewater system construction and installation must meet all conditions and specifications as set forth in the above Improvement Permit and attached site plan with system details. Construction and installation must also meet all requirements set forth in the Rules governing Sanitary Sewage Collection, Treatment, And Disposal Systems and any other applicable rules and laws. (2) The wastewater system shall not be covered or placed into use until inspected by the Montgomery County Health Department and an operation permit issued. (3) Any alteration in site or soil conditions (including location of structures and appurtenances) or modifications in use, wastewater flow, or wastewater characteristics as specified in the associated Improvement Permit and application, may subject this Authorization and associated permit(s) to revocation.

Construction Authorization Conditions

Keep system shallow and follow contour, install pump per attached diagram, keep all parts of system at least 100' from any well

Number of Attachment: _____
Construction Authorization By: Dave Wyll R.S. Date: 6/26/98

Montgomery County Health Department

Environmental Health Section

Applicant: KEJ Marketing Permit Number: 98250
Owner: KEJ Marketing PIN #:
Proposed Use: House Water Supply: private
Division or SR#: Heron Bay Lot: 47 Section #: 10 Map #:
Sections:

Improvement Permit

Flow: System Design Flow: 360 GPD Type of Wastewater: domestic
Bedrooms: 3 Occupants: Basement: Yes Basement Fixtures: No
Employees: NA # of Seats: NA Type of System: Conventional
LTAR for Initial System: 0.30 GPD/Sq. Ft. Septic Tank: 900 Gallon Pump Tank: NA Gallon
Inch Length: 400 linear ft Depth: 24 in. Width: 36 in. Total Stone Depth: 12 in.
Repair System: Conventional LTAR for Repair System: 0.30 GPD/Sq. Ft.

Improvement Permit Conditions

This permit is a site approval for the future installation of an on-site wastewater system and is subject to revocation if the site plans or intended use changes from those shown above or on the application. This Improvement Permit must be accompanied by a construction authorization prior to obtaining any building permits and before the wastewater system is installed. This improvement permit is valid for a period of five years unless otherwise noted.

Improvement Permit Issued By: David Weyll AS Date: 6/26/98

Authorization For Wastewater System Construction

This Authorization For Wastewater System Construction is valid for 5 years (60 months) from the date of issuance. (1) Wastewater system construction and installation must meet all conditions and specifications as set forth in the above Improvement Permit and attached site plan with system details. Construction and installation must also meet all requirements set forth in the Rules governing Sanitary Sewage Collection, Treatment, And Disposal Systems and any other applicable rules and laws. (2) The wastewater system shall not be covered or placed into use until inspected by the Montgomery County Health Department and an operation permit issued. (3) Any alteration in site or soil conditions (including location of structures and appurtenances) or modifications in use, wastewater flow, or wastewater characteristics as specified in the associated Improvement Permit and application, may subject this Authorization and associated permit(s) to revocation.

Construction Authorization Conditions

Keep system shallow and follow contour, install pump per attached diagram, keep all parts of system at least 100' from any well

Number of Attachment: 2
Construction Authorization By: David Weyll AS Date: 6/26/98

Montgomery County Health Department

Environmental Health Section

Applicant: KEI Marketing Permit Number: 98289
Owner: KEI Marketing PIN #: _____
Proposed Use: House Water Supply: private
Division or SR#: Heron Bay Lot 46 Section #: 10 Map #: _____
Sections: _____

Improvement Permit

Flow: _____ System Design Flow: 360 GPD Type of Wastewater: domestic
Rooms: 3 Occupants: _____ Basement: Yes Basement Fixtures: No
Employees: NA # of Seats: NA Type of System: Conventional
LTAR for Initial System: 0.30 GPD/Sq. Ft. Septic Tank: 900 Gallon Pump Tank: _____ Gallon
Inch Length: 400 linear ft Depth: 24 in. Width: 36 in. Total Stone Depth: 12 in.
Repair System: Conventional LTAR for Repair System: 0.30 GPD/Sq. Ft.

Improvement Permit Conditions

This permit is a site approval for the future installation of an on-site wastewater system and is subject to revocation if the site plans or intended use changes from those shown above or on the application. This Improvement Permit must be accompanied by a construction authorization prior to obtaining any building permits and before the wastewater system is installed. This improvement is valid for a period of five years unless otherwise noted.

Improvement Permit Issued By: David Weyll R.S. Date: 6/26/98

Authorization For Wastewater System Construction

This Authorization For Wastewater System Construction is valid for 5 years (60 months) from the date of issuance. (1) Wastewater system construction and installation must meet all conditions and specifications as set forth in the above Improvement Permit and attached site plan with system details. Construction and installation must also meet all requirements set forth in the Rules governing Sanitary Sewage Collection, Treatment, And Disposal Systems and any other applicable rules and laws. (2) The wastewater system shall not be covered or placed into use until inspected by the Montgomery County Health Department and an operation permit issued. (3) Any alteration in site or soil conditions (including location of structures and appurtenances) or modifications in use, wastewater flow, or wastewater characteristics as specified in the associated Improvement Permit and application, may subject this Authorization and associated permit(s) to revocation.

Construction Authorization Conditions

per system shallow and follow contour, install pump per attached diagram, keep all parts of system at least 100' from any well

Number of Attachment: 2
Construction Authorization By: David Weyll R.S. Date: 6/26/98

Montgomery County Health Department

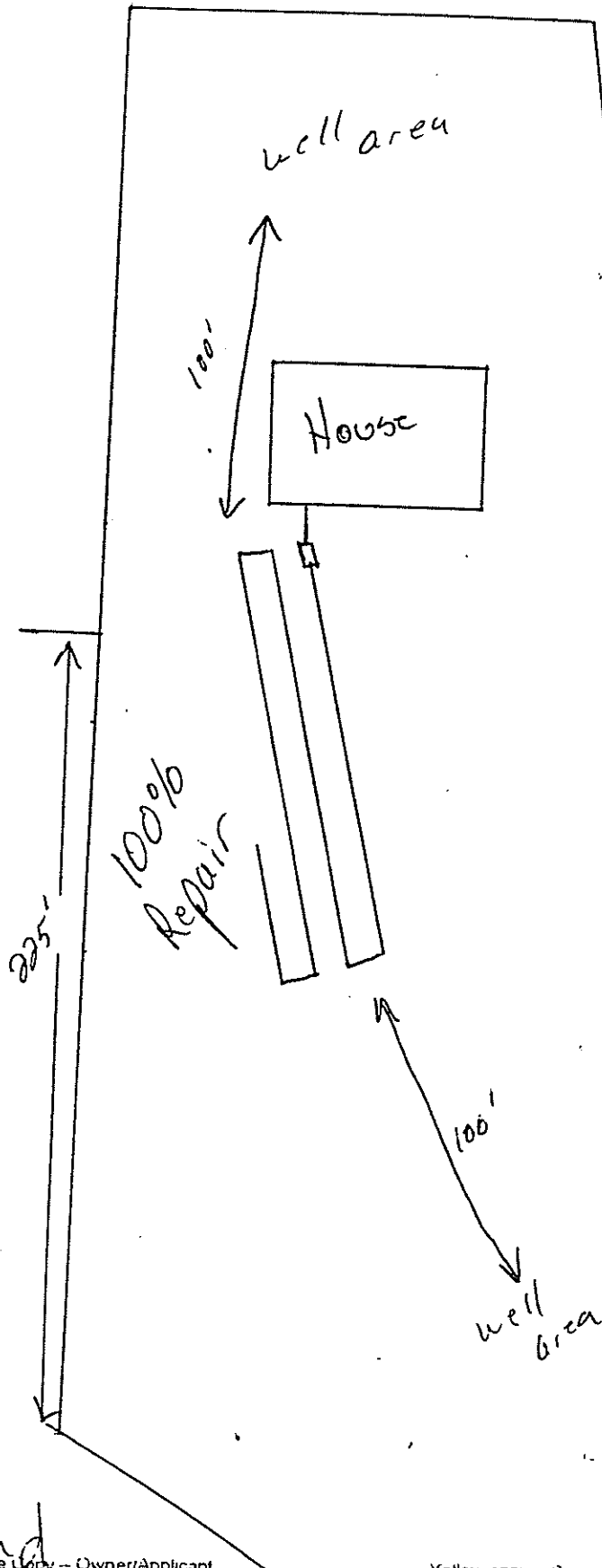
Environmental Health Section

Applicant: HEJ Marketing

Site Plan

Permit Number: 98269

Scale - 1" = 50'



5ad
White Lacy -- Owner/Applicant

Montgomery County Health Department

Environmental Health Section

Applicant: KEJ Marketing Permit Number: 98088
Owner: KEJ Marketing PIN #: _____
Proposed Use: House Water Supply: private
Division or SR#: Heron Bay Lot: 45 Section #: 10 Map #: _____
Sections: _____

Improvement Permit

Flow: _____ System Design Flow: 360 GPD Type of Wastewater: domestic
Bedrooms: 3 Occupants: _____ Basement: Yes Basement Fixtures: No
Employees: NA # of Seats: NA Type of System: Pump Conventional
LTAR for Initial System: 0.30 GPD/Sq. Ft. Septic Tank: 900 Gallon Pump Tank: 900 Gallon
 trench Length: 400 linear ft Depth: 20 in. Width: 36 in. Total Stone Depth: 12 in.
Repair System: Pump Conventional LTAR for Repair System: 0.30 GPD/Sq. Ft.

Improvement Permit Conditions

This permit is a site approval for the future installation of an on-site wastewater system and is subject to revocation if the site plans or intended use changes from those shown above or on the application. This Improvement Permit must be accompanied by a construction authorization prior to obtaining any building permits and before the wastewater system is installed. This improvement permit is valid for a period of five years unless otherwise noted.

Improvement Permit Issued By: David W. Goff R.S. Date: 6/26/98

Authorization For Wastewater System Construction

This Authorization For Wastewater System Construction is valid for 5 years (60 months) from the date of issuance. (1) Wastewater system construction and installation must meet all conditions and specifications as set forth in the above Improvement Permit and attached site plan with system details. Construction and installation must also meet all requirements set forth in the Rules governing Sanitary Sewage Collection, Treatment, And Disposal Systems and any other applicable rules and laws. (2) The wastewater system shall not be covered or placed into use until inspected by the Montgomery County Health Department and an operation permit issued. (3) Any alteration in site or soil conditions (including location of structures and appurtenances) or modifications in use, wastewater flow, or wastewater characteristics as specified in the associated Improvement Permit and application, may subject this Authorization and associated permit(s) to revocation.

Construction Authorization Conditions

per system shallow and follow contour, install pump per attached
diagram, keep all parts of system at least 100' from any well

Number of Attachment: 2
Construction Authorization By: David W. Goff R.S. Date: 6/26/98

Montgomery County Health Department

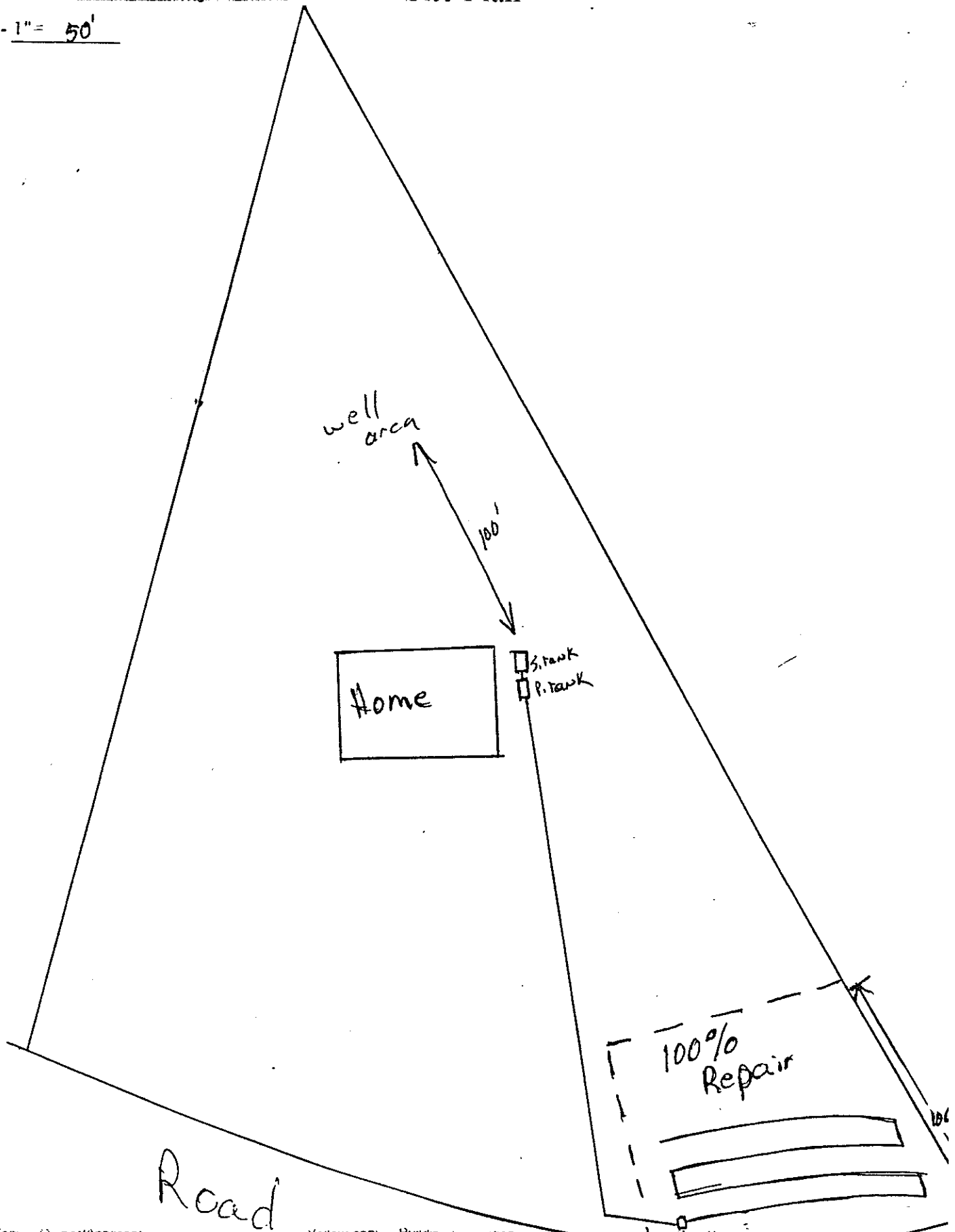
Environmental Health Section

Applicant: HEJ Marketing

Site Plan

Permit Number: 98288

Scale - 1" = 50'



ant: KET Marketing Permit Number: 98087
KET Marketing PIN #:
sed Use: House Water Supply private
vision or SR#: Heron Bay Lot 44 Section #: 10 Map #:
ions:

System Design Flow: 360 GPD Type of Wastewater: domestic
 Rooms: 3 Occupants: Basement: Yes Basement Fixtures: No
 Employees: NA # of Seats: NA Type of System: Pump Conventional
 LTAR for Initial System: 0.30 GPD/Sq. Ft. Septic Tank: 900 Gallon Pump Tank: 900 Gallon
 Length: 400 linear ft Depth: 24 in. Width: 36 in. Total Stone Depth: 12 in.
 LTAR for Repair System: Pump Conventional LTAR for Repair System: 0.30 GPD/Sq. Ft.

Permit is a site approval for the future installation of an on-site wastewater system and is subject to revocation if the site plans or use changes from those shown above or on the application. This Improvement Permit must be accompanied by a construction authorization prior to obtaining any building permits and before the wastewater system is installed. This improvement permit is valid for a period of five years unless otherwise noted.

Government Permit Issued By: David W. Smith R3 Date: 6/26/98

authorization For Wastewater System Construction is valid for 5 years (60 months) from the date of issuance. (1) Wastewater n construction and installation must meet all conditions and specifications as set forth in the above Improvement Permit and ached site plan with system details. Construction and installation must also meet all requirements set forth in the Rules nging Sanitary Sewage Collection, Treatment, And Disposal Systems and any other applicable rules and laws. (2) The water system shall not be covered or placed into use until inspected by the Montgomery County Health Department and an tion Permit issued. (3) Any alteration in site or soil conditions (including location of structures and appurtenances) or ications in use, wastewater flow, or wastewater characteristics as specified in the associated Improvement Permit and ation, may subject this Authorization and associated permit(s) to revocation.

re system shallow and follow contour, install pump per attached
gram, keep all parts of system at least 100' from any well

Number of Attachment 2
Instruction Authorization By: David W. H. R. S. Date: 6-20-99

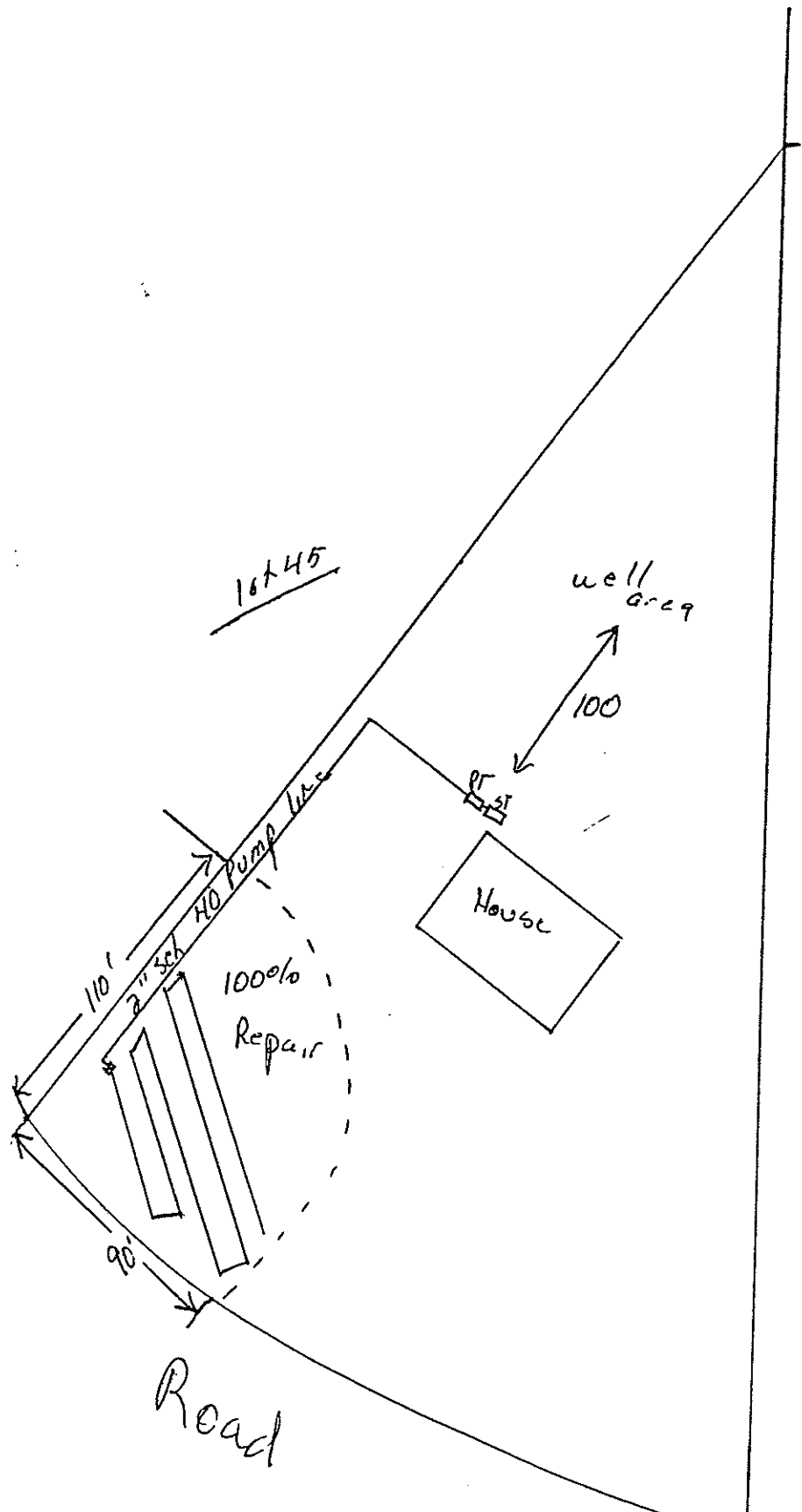
Montgomery County Health Department
Environmental Health Section

Applicant: BEI Marketing

Site Plan

Permit Number: 98257

Scale - 1" = 60'



Montgomery County Health Department

Environmental Health Section

Applicant: KEJ Marketing Permit Number: 98186
Address: KEJ Marketing PIN #: _____
Proposed Use: House Water Supply: private
Division or SR#: Heron Bay Lot: 43 Section #: 10 Map #: _____
Comments: _____

Improvement Permit

Flow: _____ System Design Flow: 360 GPD Type of Wastewater: domestic
Rooms: 3 Occupants: _____ Basement: Yes Basement Fixtures: No
Employees: NA # of Seats: NA Type of System: Innovative
LTAR for Initial System: 0.30 GPD/Sq. Ft. Septic Tank: 900 Gallon Pump Tank: 900 Gallon
Inch Length: 300 linear ft Depth: 24 in. Width: 36 in. Total Stone Depth: NA
Innovative System: Innovative LTAR for Repair System: 0.30 GPD/Sq. Ft.

Improvement Permit Conditions

System must be polystyrene aggregate or chamber, install per
manufacturers specifications

This permit is a site approval for the future installation of an on-site wastewater system and is subject to revocation if the site plans or
proposed use changes from those shown above or on the application. This Improvement Permit must be accompanied by a
construction authorization prior to obtaining any building permits and before the wastewater system is installed. This improvement
permit is valid for a period of five years unless otherwise noted.

Improvement Permit Issued By: David Wyll RS Date: 6/26/98

Authorization For Wastewater System Construction

Authorization For Wastewater System Construction is valid for 5 years (60 months) from the date of issuance. (1) Wastewater
system construction and installation must meet all conditions and specifications as set forth in the above Improvement Permit and
attached site plan with system details. Construction and installation must also meet all requirements set forth in the Rules
governing Sanitary Sewage Collection, Treatment, And Disposal Systems and any other applicable rules and laws. (2) The
wastewater system shall not be covered or placed into use until inspected by the Montgomery County Health Department and an
authorization permit issued. (3) Any alteration in site or soil conditions (including location of structures and appurtenances) or
variations in use, wastewater flow, or wastewater characteristics as specified in the associated Improvement Permit and
authorization, may subject this Authorization and associated permit(s) to revocation.

Construction Authorization Conditions

System shall be shallow and follow contour, install pump per attached
drawings, keep all parts of system at least 100' from any well

Number of Attachment: 2
Construction Authorization By: David Wyll RS Date: 6/26/98

Montgomery County Health Department

Environmental Health Section

Applicant: KEJ Marketing Permit Number: 98085
Owner: KEJ Marketing PIN #:
Proposed Use: House Water Supply: private
Division or SR#: Heron Bay Lot: 42 Section #: 10 Map #:
Sections:

Improvement Permit

Design Flow: 360 GPD Type of Wastewater: domestic
Rooms: 3 Occupants: Basement: Yes Basement Fixtures: No
Employees: NA # of Seats: NA Type of System: INNOVATIVE
LTAR for Initial System: GPD/Sq. Ft. Septic Tank: 900 Gallon Pump Tank: 900 Gallon
Inch Length: 100 linear ft Depth: 20 in. Width: 36 in. Total Stone Depth: 12
Repair System: INNOVATIVE LTAR for Repair System: 0.30 GPD/Sq. Ft.

Improvement Permit Conditions

System must be Polyethylene Aggregate or Chamber
install per manufacturer's specification

This permit is a site approval for the future installation of an on-site wastewater system and is subject to revocation if the site plans or intended use changes from those shown above or on the application. This Improvement Permit must be accompanied by a construction authorization prior to obtaining any building permits and before the wastewater system is installed. This improvement permit is valid for a period of five years unless otherwise noted.

Improvement Permit Issued By: David Weyell Esq. Date: 6/26/98

Authorization For Wastewater System Construction

Authorization For Wastewater System Construction is valid for 5 years (60 months) from the date of issuance. (1) Wastewater system construction and installation must meet all conditions and specifications as set forth in the above Improvement Permit and attached site plan with system details. Construction and installation must also meet all requirements set forth in the Rules governing Sanitary Sewage Collection, Treatment, And Disposal Systems and any other applicable rules and laws. (2) The wastewater system shall not be covered or placed into use until inspected by the Montgomery County Health Department and an authorization permit issued. (3) Any alteration in site or soil conditions (including location of structures and appurtenances) or modifications in use, wastewater flow, or wastewater characteristics as specified in the associated Improvement Permit and installation may subject this Authorization and associated permit(s) to revocation.

Construction Authorization Conditions

Deep system shallow and follow contour, install pump per attached
diagram, keep all parts of system at least 100' from any well

Number of Attachment: 2
Construction Authorization By: David Weyell Esq. Date: 6/26/98

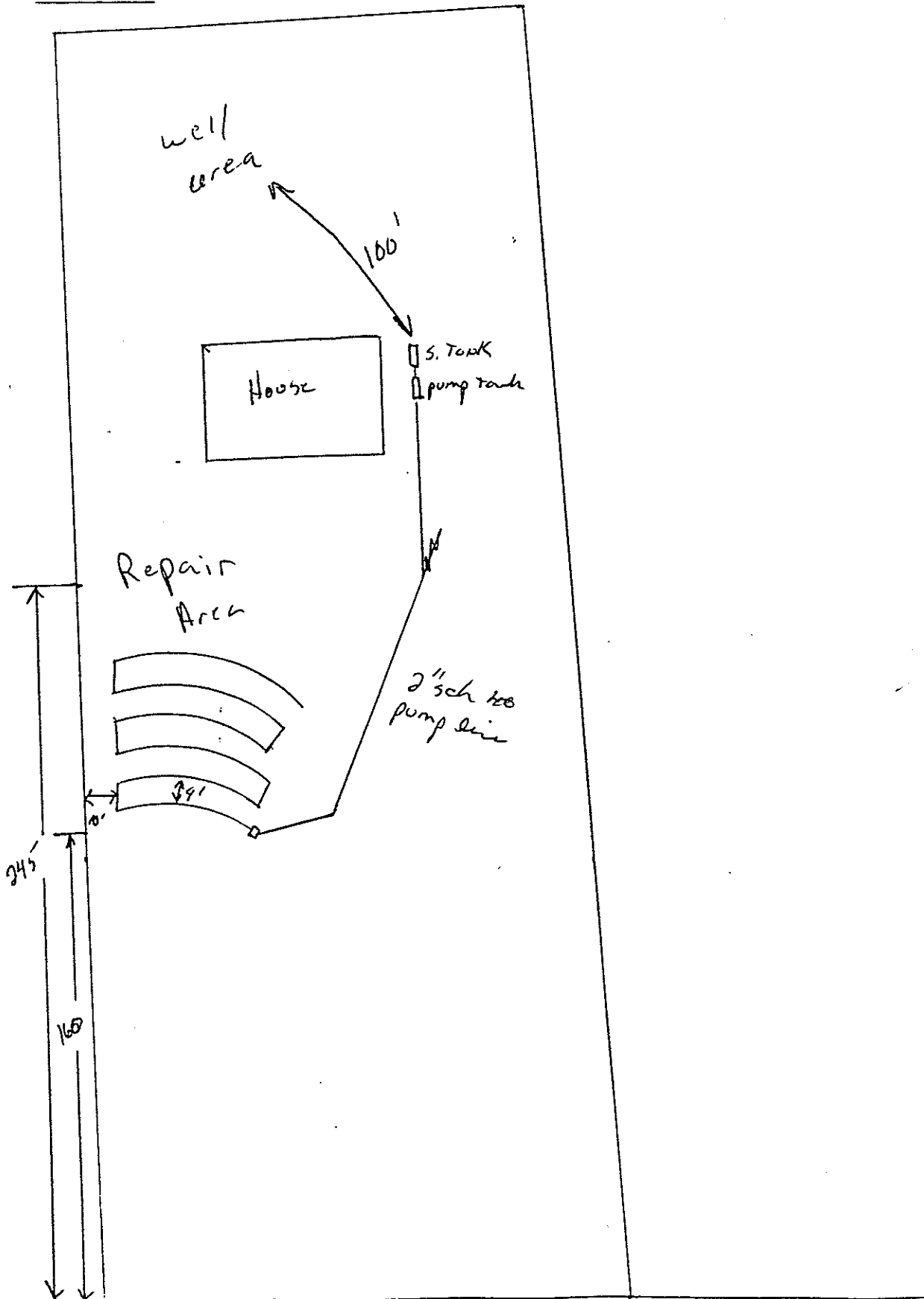
Montgomery County Health Department Environmental Health Section

licant: KEJ Marketing

Site Plan

Permit Number: 98285

1"
= 30'



Montgomery County Health Department

Environmental Health Section

Applicant: KEJ Marketing Permit Number: 08281
Address: KEJ Marketing PIN #: _____
Proposed Use: House Water Supply: private
Division or SR#: Heron Bay Lot: 41 Section #: 10 Map #: _____
Notes: _____

Improvement Permit

System Design Flow: 360 GPD Type of Wastewater: domestic
Rooms: 3 Occupants: _____ Basement: Yes Basement Fixtures: No
Boys: NA # of Seats: NA Type of System: Innovative
Rate for Initial System: 0.30 GPD/Sq. Ft. Septic Tank: 900 Gallon Pump Tank: 900 Gallon
Inlet Length: 300 linear ft Depth: 16 in. Width: 36 in. Total Stone Depth: 12
Repair System: Innovative LTAR for Repair System: 0.30 GPD/Sq. Ft.

Improvement Permit Conditions

System must be polystyrene aggregate or chamber, install per
manufacturers specifications, must have a minimum of 12 inches cover
system

Permit is a site approval for the future installation of an on-site wastewater system and is subject to revocation if the site plans or
land use changes from those shown above or on the application. This Improvement Permit must be accompanied by a
construction authorization prior to obtaining any building permits and before the wastewater system is installed. This improvement
permit is valid for a period of five years unless otherwise noted.

Improvement Permit Issued By: David Weyell RS. Date: 6/26/98

Authorization For Wastewater System Construction

Authorization For Wastewater System Construction is valid for 5 years (60 months) from the date of issuance. (1) Wastewater
construction and installation must meet all conditions and specifications as set forth in the above Improvement Permit and
attached site plan with system details. Construction and installation must also meet all requirements set forth in the Rules
regarding Sanitary Sewage Collection, Treatment, And Disposal Systems and any other applicable rules and laws. (2) The
wastewater system shall not be covered or placed into use until inspected by the Montgomery County Health Department and an
on Permit issued. (3) Any alteration in site or soil conditions (including location of structures and appurtenances) or
conditions in use, wastewater flow, or wastewater characteristics as specified in the associated Improvement Permit and
construction, may subject this Authorization and associated permit(s) to revocation.

Construction Authorization Conditions

System shall be shallow and follow contour, install pump per attached
plan, keep all parts of system at least 100' from any well

Number of Attachment: 2
Construction Authorization By: David Weyell RS. Date: 6/26/98

Montgomery County Health Department

Environmental Health Section

Applicant: KEJ Marketing Permit Number: 98083
Owner: KEJ Marketing PIN #: _____
Proposed Use: House Water Supply: private
Division or SR#: Heron Bay Lot: 40 Section #: 10 Map #: _____
Actions: _____

Improvement Permit

Flow: _____ System Design Flow: 360 GPD Type of Wastewater: domestic
Rooms: 3 Occupants: _____ Basement: Yes Basement Fixtures: No
Employees: NA # of Seats: NA Type of System: Innovative
LTAR for Initial System: 0.30 GPD/Sq. Ft. Septic Tank: 900 Gallon Pump Tank: 900 Gallon
Inch Length: 300 linear ft Depth: 24 in. Width: 36 in. Total Stone Depth: NA
Repair System: Innovative LTAR for Repair System: 0.30 GPD/Sq. Ft.

Improvement Permit Conditions

System must be polystyrene aggregate or chamber, install per
manufacturers specifications

This permit is a site approval for the future installation of an on-site wastewater system and is subject to revocation if the site plans or intended use changes from those shown above or on the application. This Improvement Permit must be accompanied by a construction authorization prior to obtaining any building permits and before the wastewater system is installed. This improvement permit is valid for a period of five years unless otherwise noted.

Improvement Permit Issued By: David Weyll A.S. Date: 7/21/98

Authorization For Wastewater System Construction

This Authorization For Wastewater System Construction is valid for 5 years (60 months) from the date of issuance. (1) Wastewater system construction and installation must meet all conditions and specifications as set forth in the above Improvement Permit and attached site plan with system details. Construction and installation must also meet all requirements set forth in the Rules Governing Sanitary Sewage Collection, Treatment, And Disposal Systems and any other applicable rules and laws. (2) The wastewater system shall not be covered or placed into use until inspected by the Montgomery County Health Department and an operation permit issued. (3) Any alteration in site or soil conditions (including location of structures and appurtenances) or modifications in use, wastewater flow, or wastewater characteristics as specified in the associated Improvement Permit and application, may subject this Authorization and associated permit(s) to revocation.

Construction Authorization Conditions

Keep system shallow and follow contour, install pump per attached diagram, keep all parts of system at least 100' from any well

Number of Attachment: 2
Construction Authorization By: David Weyll A.S. Date: 7/21/98

Montgomery County Health Department
Environmental Health Section

Permit Number: 28283

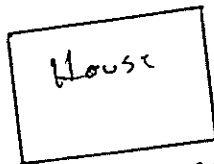
Site Plan

Applicant: NEJ Marketing

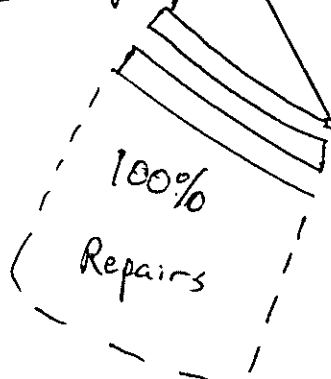
Scale - 1" = 60'

Whisper Lake Drive

well
area



2" sch 40 pump line



150'

150'

150'

Montgomery County Health Department

Environmental Health Section

Applicant: KEJ Marketing Permit Number: 98282
Owner: KEJ Marketing PIN #: _____
Proposed Use: House Water Supply: private
Division or SR#: Heron Bay Lot: 39 Section #: 10 Map #: _____
Actions: _____

Improvement Permit

System Design Flow: 360 GPD Type of Wastewater: domestic
Rooms: 3 Occupants: _____ Basement: Yes Basement Fixtures: No
Employees: NA # of Seats: NA Type of System: Pump Conventional
LTAR for Initial System: 0.30 GPD/Sq. Ft. Septic Tank: 900 Gallon Pump Tank: 900 Gallon
Inch Length: 0.30 linear ft Depth: 24 in. Width: 36 in. Total Stone Depth: 12 in.
Repair System: Pump Conventional LTAR for Repair System: 0.30 GPD/Sq. Ft.

Improvement Permit Conditions

This permit is a site approval for the future installation of an on-site wastewater system and is subject to revocation if the site plans or intended use changes from those shown above or on the application. This Improvement Permit must be accompanied by a construction authorization prior to obtaining any building permits and before the wastewater system is installed. This improvement permit is valid for a period of five years unless otherwise noted.

Improvement Permit Issued By: David Whyte RS Date: 6/26/98

Authorization For Wastewater System Construction

Authorization For Wastewater System Construction is valid for 5 years (60 months) from the date of issuance. (1) Wastewater system construction and installation must meet all conditions and specifications as set forth in the above Improvement Permit and attached site plan with system details. Construction and installation must also meet all requirements set forth in the Rules and Regulations for Sanitary Sewage Collection, Treatment, And Disposal Systems and any other applicable rules and laws. (2) The wastewater system shall not be covered or placed into use until inspected by the Montgomery County Health Department and an inspection permit issued. (3) Any alteration in site or soil conditions (including location of structures and appurtenances) or modifications in use, wastewater flow, or wastewater characteristics as specified in the associated Improvement Permit and inspection, may subject this Authorization and associated permit(s) to revocation.

Construction Authorization Conditions

System shall be shallow and follow contour, install pump per attached diagram, keep all parts of system at least 100' from any well

Number of Attachment: 2
Construction Authorization By: David Whyte RS Date: 6/26/98

Montgomery County Health Department

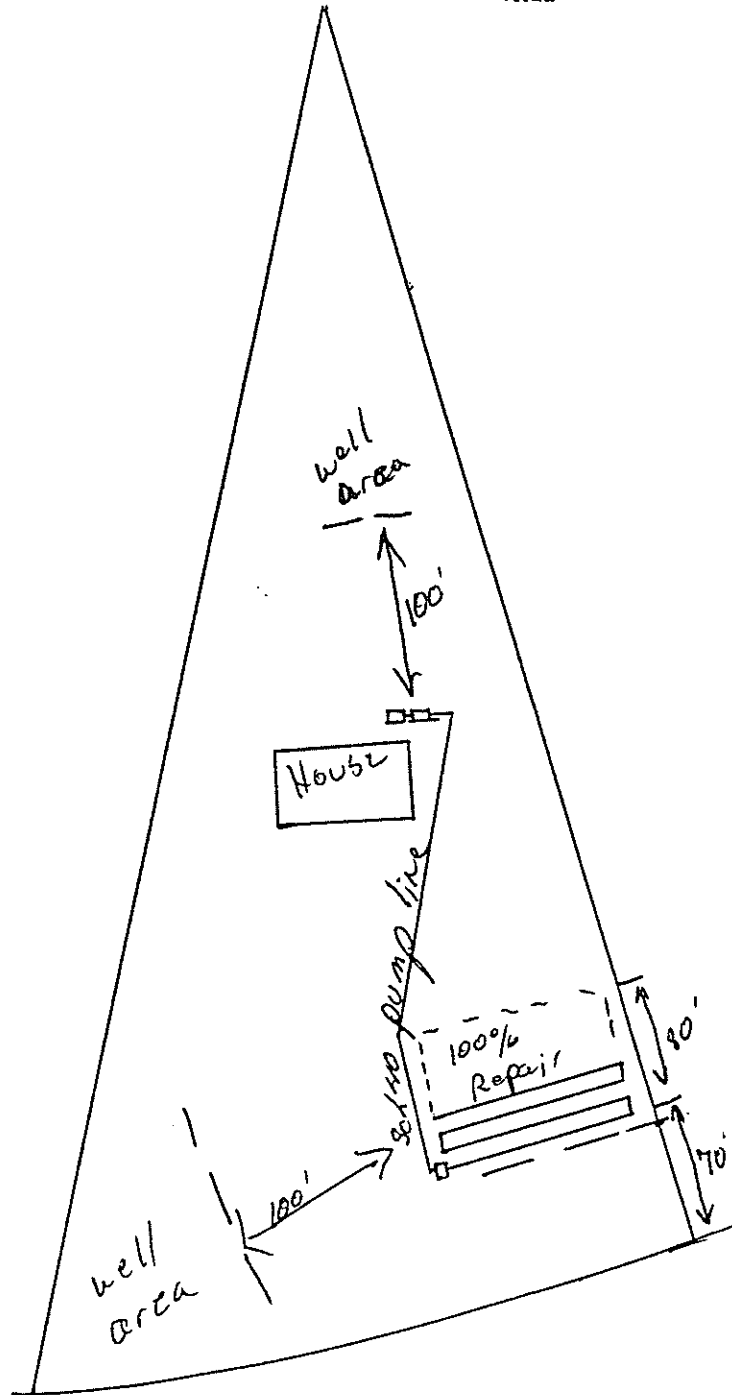
Environmental Health Section

Applicant: NEJ Marketing

Site Plan

Permit Number: 98181

Scale - 1" = 100'



Montgomery County Health Department

Environmental Health Section

Applicant: KEJ Marketing Permit Number: 96281
Owner: KEJ Marketing PIN #:
Proposed Use: House Water Supply: private
Division or SR#: Heron Bay Lot: 38 Section #: 10 Map #:
Sections:

Improvement Permit

Flow: System Design Flow: 360 GPD Type of Wastewater: domestic
Rooms: 3 Occupants: Basement: Yes Basement Fixtures: No
Employees: NA # of Seats: NA Type of System: Pump Conventional
LTAR for Initial System: 0.30 GPD/Sq. Ft. Septic Tank: 900 Gallon Pump Tank: 900 Gallon
Inch Length: 400 linear ft Depth: 24 in. Width: 36 in. Total Stone Depth: 12 in.
Inlet System: Pump Conventional LTAR for Repair System: 0.30 GPD/Sq. Ft.

Improvement Permit Conditions

This permit is a site approval for the future installation of an on-site wastewater system and is subject to revocation if the site plans or intended use changes from those shown above or on the application. This Improvement Permit must be accompanied by a construction authorization prior to obtaining any building permits and before the wastewater system is installed. This improvement permit is valid for a period of five years unless otherwise noted.

Improvement Permit Issued By: David W. Egel R.S. Date: 6/26/98

Authorization For Wastewater System Construction

Authorization For Wastewater System Construction is valid for 5 years (60 months) from the date of issuance. (1) Wastewater system construction and installation must meet all conditions and specifications as set forth in the above Improvement Permit and attached site plan with system details. Construction and installation must also meet all requirements set forth in the Rules and Regulations for Sanitary Sewage Collection, Treatment, And Disposal Systems and any other applicable rules and laws. (2) The wastewater system shall not be covered or placed into use until inspected by the Montgomery County Health Department and an Authorization Permit issued. (3) Any alteration in site or soil conditions (including location of structures and appurtenances) or specifications in use, wastewater flow, or wastewater characteristics as specified in the associated Improvement Permit and construction, may subject this Authorization and associated permit(s) to revocation.

Construction Authorization Conditions

System shall be shallow and follow contour, install pump per attached diagram, keep all parts of system at least 100' from any well

Number of Attachments: 2
Construction Authorization By: David W. Egel Date: 6/26/98

Montgomery County Health Department

Environmental Health Section

Applicant: KEJ Marketing Permit Number: 98180
Owner: KEJ Marketing PIN #: _____
Proposed Use: House Water Supply: private
Division or SR#: Heron Bay Lot: 37 Section #: 10 Map #: _____
Locations: Whisper lake Dr

Improvement Permit

Flow: _____ System Design Flow: 360 GPD Type of Wastewater: domestic
Rooms: 3 Occupants: _____ Basement: Yes Basement Fixtures: No
Employees: NA # of Seats: NA Type of System: Conventional
LTAR for Initial System: 0.30 GPD/Sq. Ft. Septic Tank: 900 Gallon Pump Tank: NA Gallon
Inch Length: 30' linear ft Depth: 24 in. Width: 36 in. Total Stone Depth: 12 in. NA
Repair System: Conventional LTAR for Repair System: 0.30 GPD/Sq. Ft.

Improvement Permit Conditions

System must be polystyrene aggregate or chamber, install per manufacturer's specifications

This permit is a site approval for the future installation of an on-site wastewater system and is subject to revocation if the site plans or intended use changes from those shown above or on the application. This Improvement Permit must be accompanied by a construction authorization prior to obtaining any building permits and before the wastewater system is installed. This improvement permit is valid for a period of five years unless otherwise noted.

Improvement Permit Issued By: David W. Egall R.S. Date: 4/6/98

Authorization For Wastewater System Construction

This Authorization For Wastewater System Construction is valid for 5 years (60 months) from the date of issuance. (1) Wastewater system construction and installation must meet all conditions and specifications as set forth in the above Improvement Permit and attached site plan with system details. Construction and installation must also meet all requirements set forth in the Rules governing Sanitary Sewage Collection, Treatment, And Disposal Systems and any other applicable rules and laws. (2) The wastewater system shall not be covered or placed into use until inspected by the Montgomery County Health Department and an Authorization Permit issued. (3) Any alteration in site or soil conditions (including location of structures and appurtenances) or modifications in use, wastewater flow, or wastewater characteristics as specified in the associated Improvement Permit and application, may subject this Authorization and associated permit(s) to revocation.

Construction Authorization Conditions

Rep system shallow and follow contour, install per attached site plan
60' separation from wells

Number of Attachment: 1
Construction Authorization By: David W. Egall R.S. Date: 4/6/98

Montgomery County Health Department

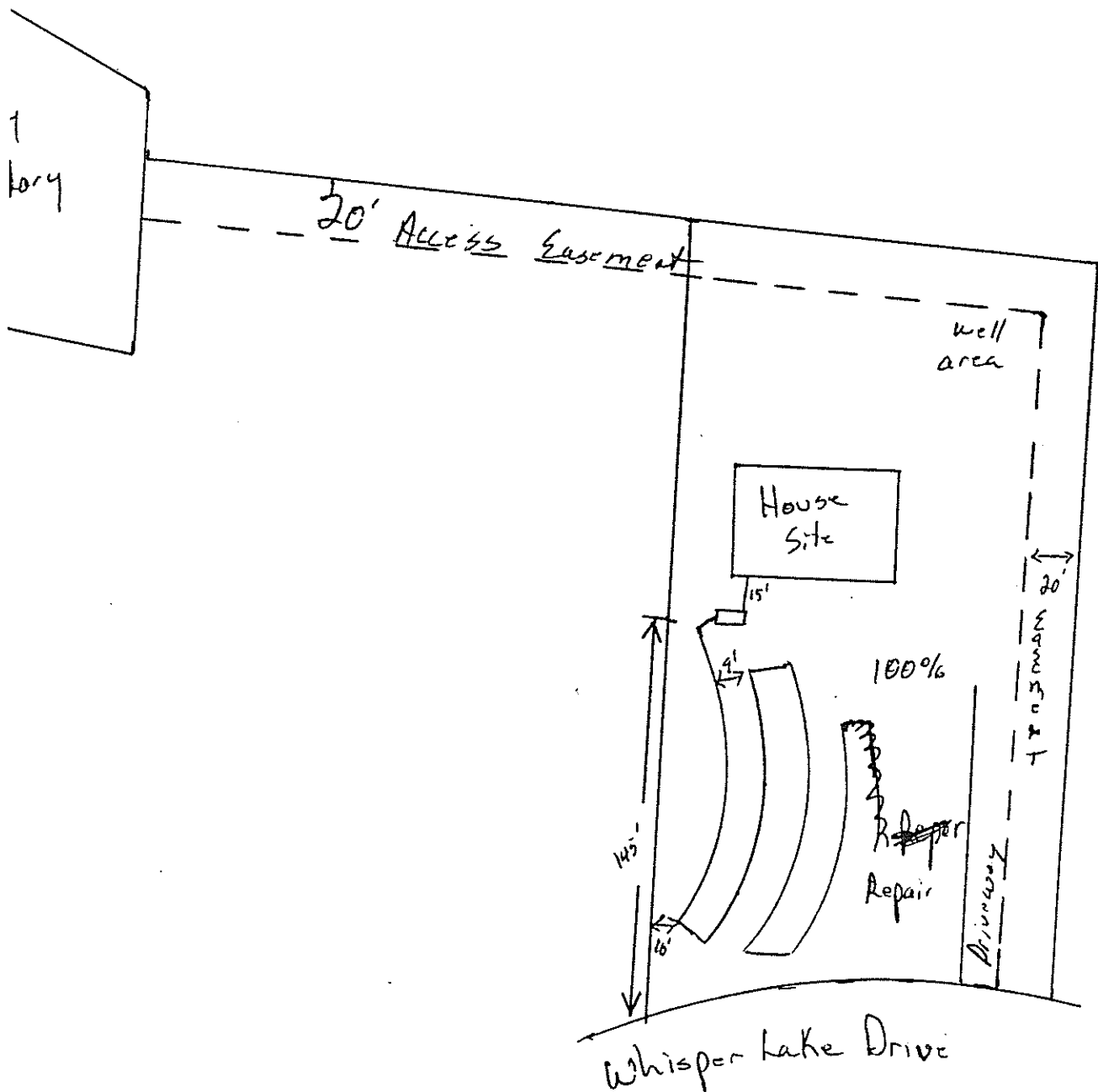
Environmental Health Section

Ant: KEJ Marketing

Site Plan

Permit Number: 98180

- 1" = 60'



Montgomery County Health Department

Environmental Health Section

Applicant: KEJ Marketing Permit Number: 98179
Address: KEJ Marketing PIN #:
Proposed Use: House Water Supply: private
Division or SR#: Heron Bay Lot: 36 Section #: 10 Map #:
Location: Whisper Lake Dr.

Improvement Permit

Wastewater System Design Flow: 360 GPD Type of Wastewater: domestic
Rooms: 3 Occupants: Basement: Yes Basement Fixtures: No
Employees: NA # of Seats: NA Type of System: Conventional
LTAR for Initial System: 0.30 GPD/Sq. Ft. Septic Tank: 900 Gallon Pump Tank: NA Gallon
Tank Length: 400 linear ft Depth: 24 in. Width: 36 in. Total Stone Depth: 12 in.
Wastewater System: Conventional LTAR for Repair System: 0.30 GPD/Sq. Ft.

Improvement Permit Conditions

This permit is a site approval for the future installation of an on-site wastewater system and is subject to revocation if the site plans or intended use changes from those shown above or on the application. This Improvement Permit must be accompanied by a construction authorization prior to obtaining any building permits and before the wastewater system is installed. This improvement permit is valid for a period of five years unless otherwise noted.

Improvement Permit Issued By: David W. Wyllie RS Date: 4/6/98

Authorization For Wastewater System Construction

This Authorization For Wastewater System Construction is valid for 5 years (60 months) from the date of issuance. (1) Wastewater system construction and installation must meet all conditions and specifications as set forth in the above Improvement Permit and attached site plan with system details. Construction and installation must also meet all requirements set forth in the Rules Governing Sanitary Sewage Collection, Treatment, And Disposal Systems and any other applicable rules and laws. (2) The wastewater system shall not be covered or placed into use until inspected by the Montgomery County Health Department and an operation permit issued. (3) Any alteration in site or soil conditions (including location of structures and appurtenances) or modifications in use, wastewater flow, or wastewater characteristics as specified in the associated Improvement Permit and location, may subject this Authorization and associated permit(s) to revocation.

Construction Authorization Conditions

Wastewater system shall be shallow and follow contour, install per attached site plan
100' separation from wells

Number of Attachment: 1
Construction Authorization By: David W. Wyllie RS Date: 4/6/98

Montgomery County Health Department

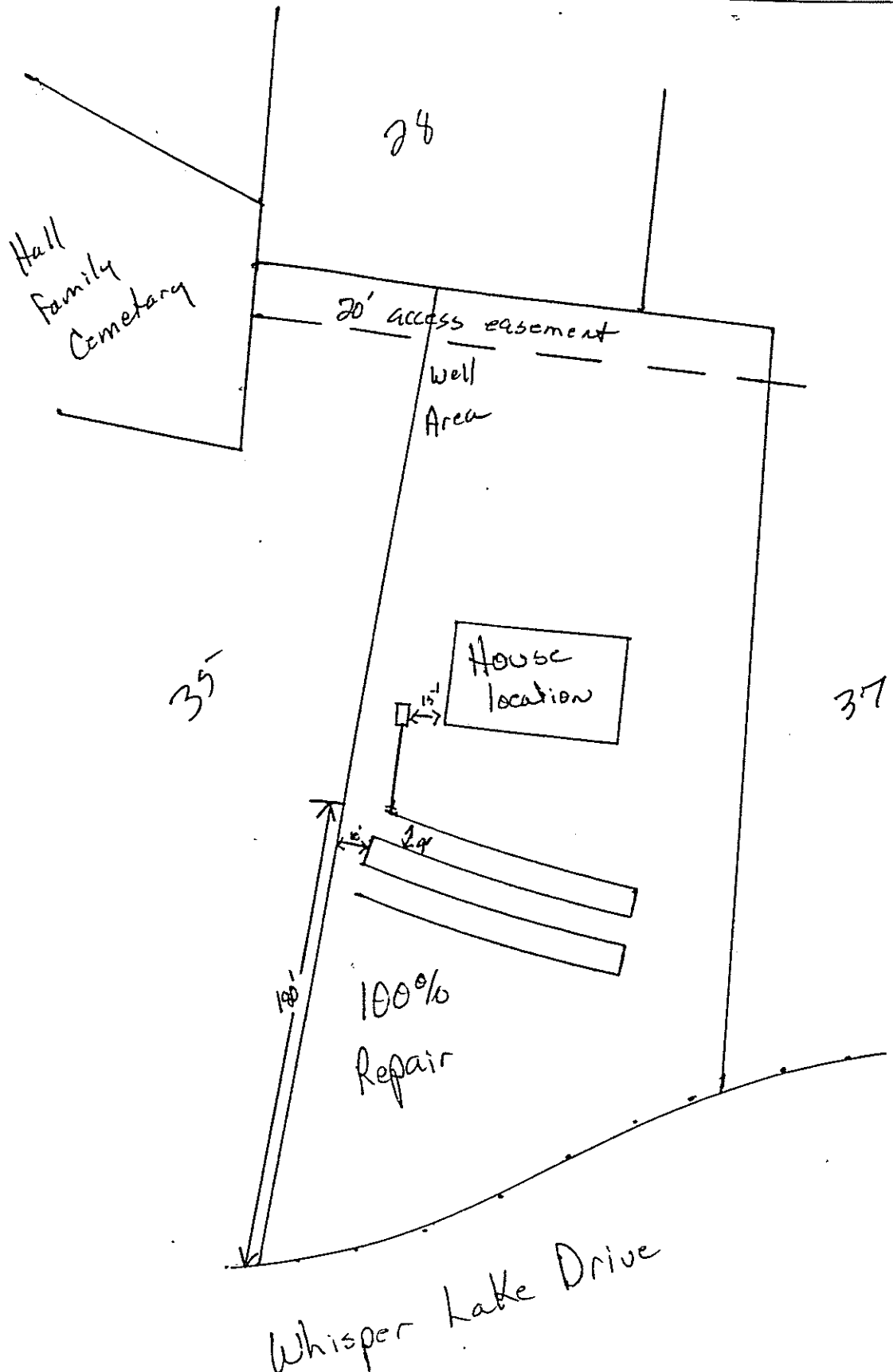
Environmental Health Section

Applicant: KEJ Marketing

Site Plan

Permit Number: 98179

Scale - 1" = 60'



Montgomery County Health Department

Environmental Health Section

Applicant: KEJ Marketing Permit Number: 98178
Owner: KEJ Marketing PIN #:
Proposed Use: House Water Supply: private
Division or SR#: Heron Bay Lot: 35 Section #: 10 Map #:
Address: Whisper Lake Dr

Improvement Permit

System Design Flow: 360 GPD Type of Wastewater: domestic
Rooms: 3 Occupants: Basement: yes Basement Fixtures: No
Employees: NA # of Seats: NA Type of System: Conventional
LTAR for Initial System: 0.30 GPD/Sq. Ft. Septic Tank: 900 Gallon Pump Tank: NA Gallon
Inch Length: 400 linear ft Depth: 24 in. Width: 36 in. Total Stone Depth: 12 in.
Repair System: Conventional LTAR for Repair System: 0.30 GPD/Sq. Ft.

Improvement Permit Conditions

This permit is a site approval for the future installation of an on-site wastewater system and is subject to revocation if the site plans or intended use changes from those shown above or on the application. This Improvement Permit must be accompanied by a construction authorization prior to obtaining any building permits and before the wastewater system is installed. This improvement permit is valid for a period of five years unless otherwise noted.

Improvement Permit Issued By: David Weyll RS. Date: 4/6/98

Authorization For Wastewater System Construction

This Authorization For Wastewater System Construction is valid for 5 years (60 months) from the date of issuance. (1) Wastewater system construction and installation must meet all conditions and specifications as set forth in the above Improvement Permit and attached site plan with system details. Construction and installation must also meet all requirements set forth in the Rules Governing Sanitary Sewage Collection, Treatment, And Disposal Systems and any other applicable rules and laws. (2) The wastewater system shall not be covered or placed into use until inspected by the Montgomery County Health Department and an Improvement Permit issued. (3) Any alteration in site or soil conditions (including location of structures and appurtenances) or modifications in use, wastewater flow, or wastewater characteristics as specified in the associated Improvement Permit and location, may subject this Authorization and associated permit(s) to revocation.

Construction Authorization Conditions

System shall be shallow and follow contour, install per attached site plan
90' separation from wells

Number of Attachment: 1
Construction Authorization By: David Weyll RS. Date: 4/6/98

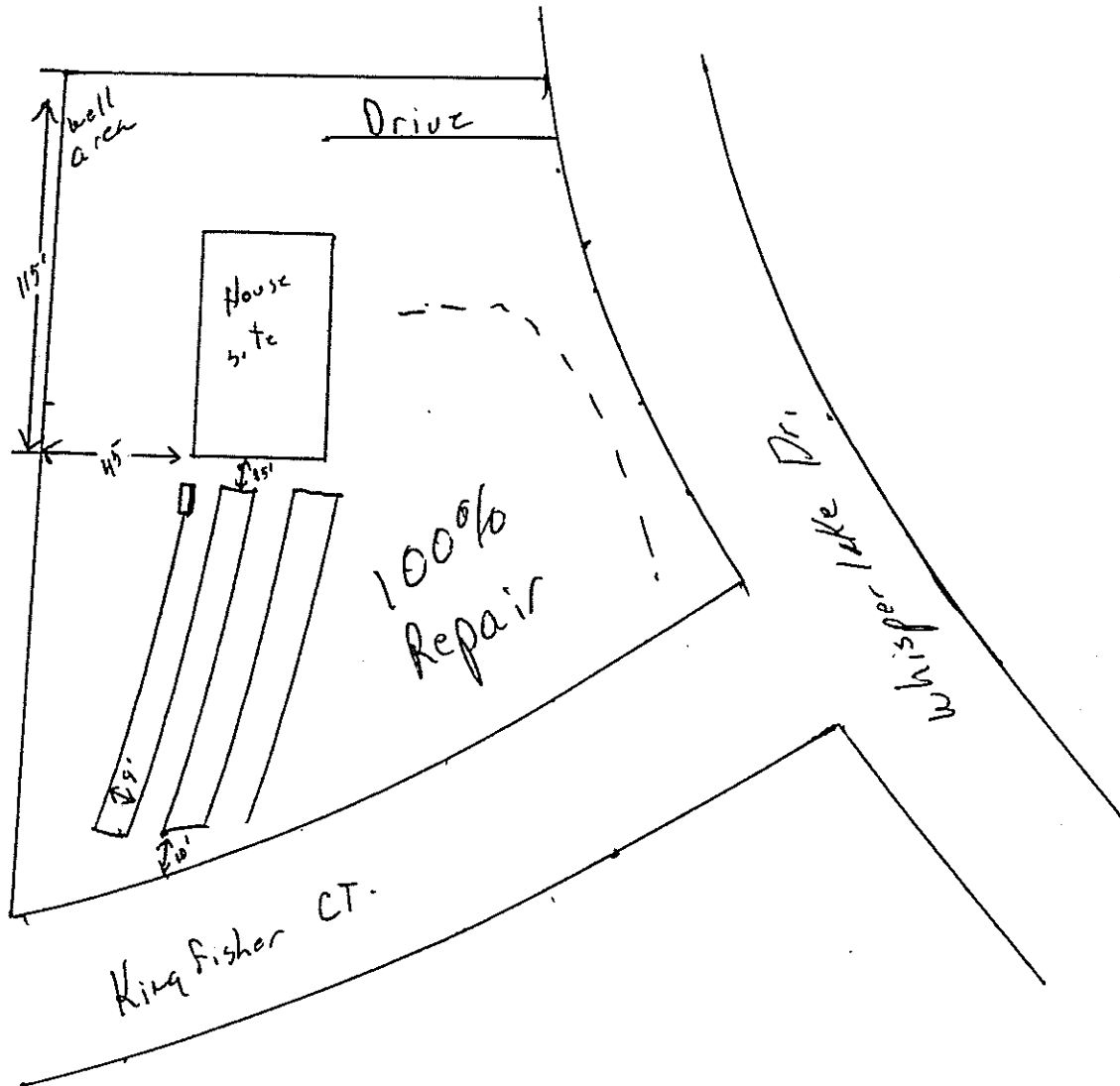
Montgomery County Health Department Environmental Health Section

Applicant: KEJ Marketing

Site Plan

Permit Number: 98175

Scale - 1" = 60'



Montgomery County Health Department

Environmental Health Section

Applicant: KEJ Marketing Permit Number: 98174
Address: KEJ Marketing PIN #: _____
Proposed Use: Mobile Home Water Supply: private
Division or SR#: Heron Bay Lot: 31 Section #: 10 Map #: _____
Location: Kingfisher Ct.

Improvement Permit

Flow: _____ System Design Flow: 360 GPD Type of Wastewater: domestic
Rooms: 3 Occupants: _____ Basement: Yes Basement Fixtures: No
Employees: NA # of Seats: NA Type of System: Conventional
LTAR for Initial System: 0.30 GPD/Sq. Ft. Septic Tank: 900 Gallon Pump Tank: NA Gallon
Tank Length: 400 linear ft Depth: 24 in. Width: 36 in. Total Stone Depth: 12 in.
Soil System: Conventional LTAR for Repair System: 0.30 GPD/Sq. Ft.

Improvement Permit Conditions

This permit is a site approval for the future installation of an on-site wastewater system and is subject to revocation if the site plans or intended use changes from those shown above or on the application. This Improvement Permit must be accompanied by a construction authorization prior to obtaining any building permits and before the wastewater system is installed. This improvement permit is valid for a period of five years unless otherwise noted.

Improvement Permit Issued By: David W. Goff R.S. Date: 4/6/98

Authorization For Wastewater System Construction

Construction Authorization For Wastewater System Construction is valid for 5 years (60 months) from the date of issuance. (1) Wastewater system construction and installation must meet all conditions and specifications as set forth in the above Improvement Permit and attached site plan with system details. Construction and installation must also meet all requirements set forth in the Rules and Regulations governing Sanitary Sewage Collection, Treatment, And Disposal Systems and any other applicable rules and laws. (2) The wastewater system shall not be covered or placed into use until inspected by the Montgomery County Health Department and an inspection permit issued. (3) Any alteration in site or soil conditions (including location of structures and appurtenances) or modifications in use, wastewater flow, or wastewater characteristics as specified in the associated Improvement Permit and location, may subject this Authorization and associated permit(s) to revocation.

Construction Authorization Conditions

System shall be shallow and follow contour, install per attached site plan

100' separation from wells

Number of Attachment: 1
Construction Authorization By: David W. Goff R.S. Date: 4/6/98

Montgomery County Health Department

Environmental Health Section

Applicant: KEJ Marketing Permit Number: 98173
Owner: KEJ Marketing PIN #: _____
Proposed Use: House Water Supply: private
Division or SR#: Heron Bay Lot: 30 Section #: 10 Map #: _____
Address: Kingfisher Ct.

Improvement Permit

Flow: _____ System Design Flow: 360 GPD Type of Wastewater: domestic
Rooms: 3 Occupants: _____ Basement: Yes Basement Fixtures: No
Employees: NA # of Seats: NA Type of System: Conventional
LTAR for Initial System: 0.30 GPD/Sq. Ft. Septic Tank: 900 Gallon Pump Tank: NA Gallon
Inch Length: 400 linear ft Depth: 24 in. Width: 36 in. Total Stone Depth: 12 in.
Inlet System: Conventional LTAR for Repair System: 0.30 GPD/Sq. Ft.

Improvement Permit Conditions

This permit is a site approval for the future installation of an on-site wastewater system and is subject to revocation if the site plans or intended use changes from those shown above or on the application. This Improvement Permit must be accompanied by a construction authorization prior to obtaining any building permits and before the wastewater system is installed. This improvement permit is valid for a period of five years unless otherwise noted.

Improvement Permit Issued By: David W. Gypke R.S. Date: 4/6/98

Authorization For Wastewater System Construction

Authorization For Wastewater System Construction is valid for 5 years (60 months) from the date of issuance. (1) Wastewater system construction and installation must meet all conditions and specifications as set forth in the above Improvement Permit and attached site plan with system details. Construction and installation must also meet all requirements set forth in the Rules governing Sanitary Sewage Collection, Treatment, And Disposal Systems and any other applicable rules and laws. (2) The wastewater system shall not be covered or placed into use until inspected by the Montgomery County Health Department and an authorization permit issued. (3) Any alteration in site or soil conditions (including location of structures and appurtenances) or modifications in use, wastewater flow, or wastewater characteristics as specified in the associated Improvement Permit and location, may subject this Authorization and associated permit(s) to revocation.

Construction Authorization Conditions

sewage system shallow and follow contour, install per attached site plan

Number of Attachment: 1
Construction Authorization By: David W. Gypke R.S. Date: 4/6/98

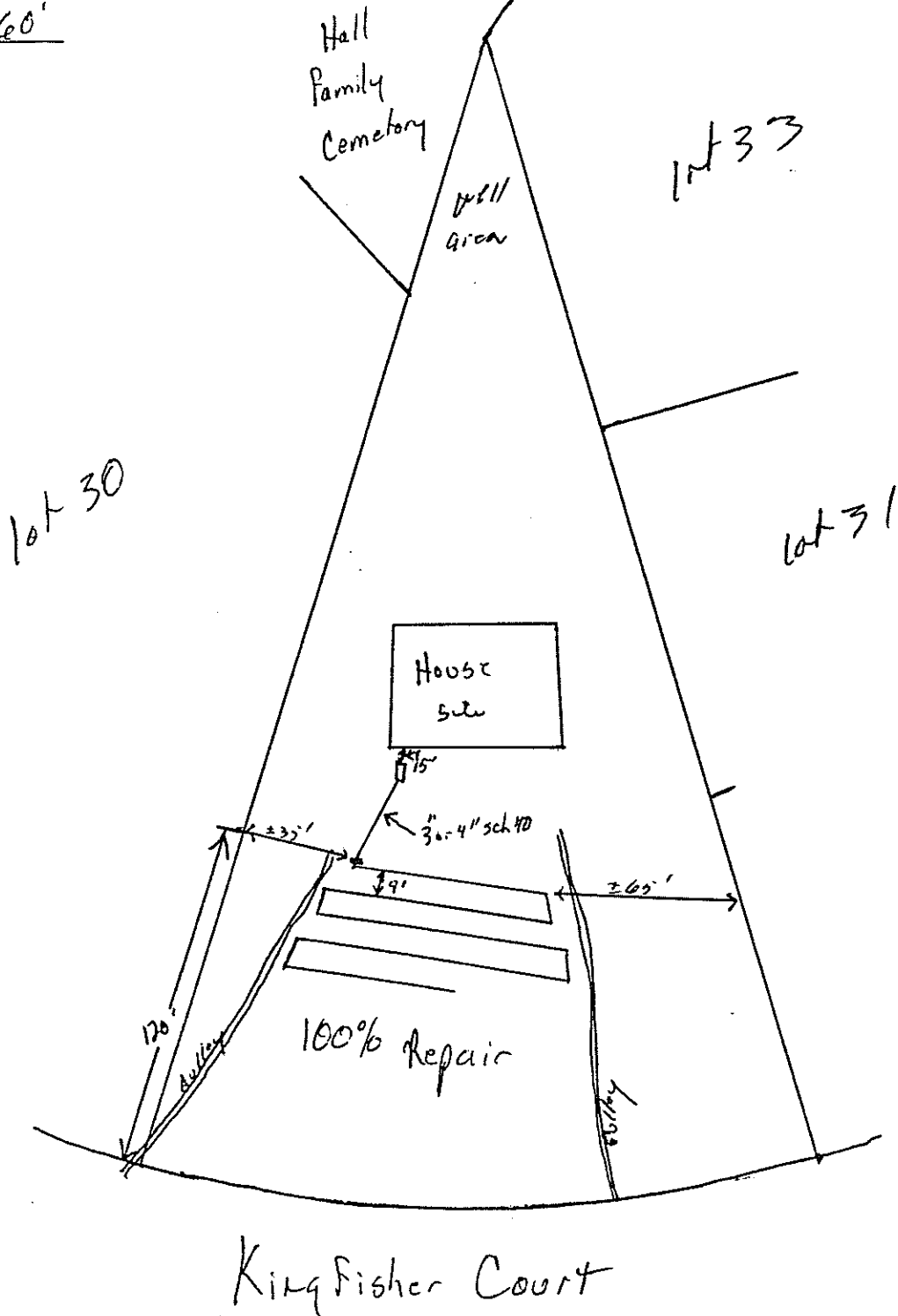
Montgomery County Health Department
Environmental Health Section

Applicant: KEJ Marketing

Site Plan

Permit Number: 98173

Scale - 1" = 60'



Montgomery County Health Department

Environmental Health Section

Applicant: KEJ Marketing Permit Number: 98172
Owner: KEJ Marketing PIN #: _____
Proposed Use: House Water Supply: private
Division or SR#: Heron Bay Lot: 29 Section #: 10 Map #: _____
Sections: Kingfisher Ct.

Improvement Permit

Flow: _____ System Design Flow: 360 GPD Type of Wastewater: domestic
Rooms: 3 Occupants: _____ Basement: Yes Basement Fixtures: No
Employees: NA # of Seats: NA Type of System: Conventional
LAR for Initial System: 0.30 GPD/Sq. Ft. Septic Tank: 900 Gallon Pump Tank: NA Gallon
Inch Length: 400 linear ft Depth: 24 in Width: 36 in Total Stone Depth: 12 in
Inlet System: Conventional LTAR for Repair System: 0.30 GPD/Sq. Ft.

Improvement Permit Conditions

This permit is a site approval for the future installation of an on-site wastewater system and is subject to revocation if the site plans or intended use changes from those shown above or on the application. This Improvement Permit must be accompanied by a construction authorization prior to obtaining any building permits and before the wastewater system is installed. This improvement permit is valid for a period of five years unless otherwise noted.

Improvement Permit Issued By: David Whiffle R.S. Date: 4/6/98

Authorization For Wastewater System Construction

This Authorization For Wastewater System Construction is valid for 5 years (60 months) from the date of issuance. (1) Wastewater system construction and installation must meet all conditions and specifications as set forth in the above Improvement Permit and attached site plan with system details. Construction and installation must also meet all requirements set forth in the Rules governing Sanitary Sewage Collection, Treatment, And Disposal Systems and any other applicable rules and laws. (2) The wastewater system shall not be covered or placed into use until inspected by the Montgomery County Health Department and an operation permit issued. (3) Any alteration in site or soil conditions (including location of structures and appurtenances) or modifications in use, wastewater flow, or wastewater characteristics as specified in the associated Improvement Permit and application, may subject this Authorization and associated permit(s) to revocation.

Construction Authorization Conditions

System shall be shallow and follow contour, install per attached site plan
100' separation from wells

Number of Attachment: 1
Construction Authorization By: David Whiffle R.S. Date: 4/6/98

Montgomery County Health Department
Environmental Health Section

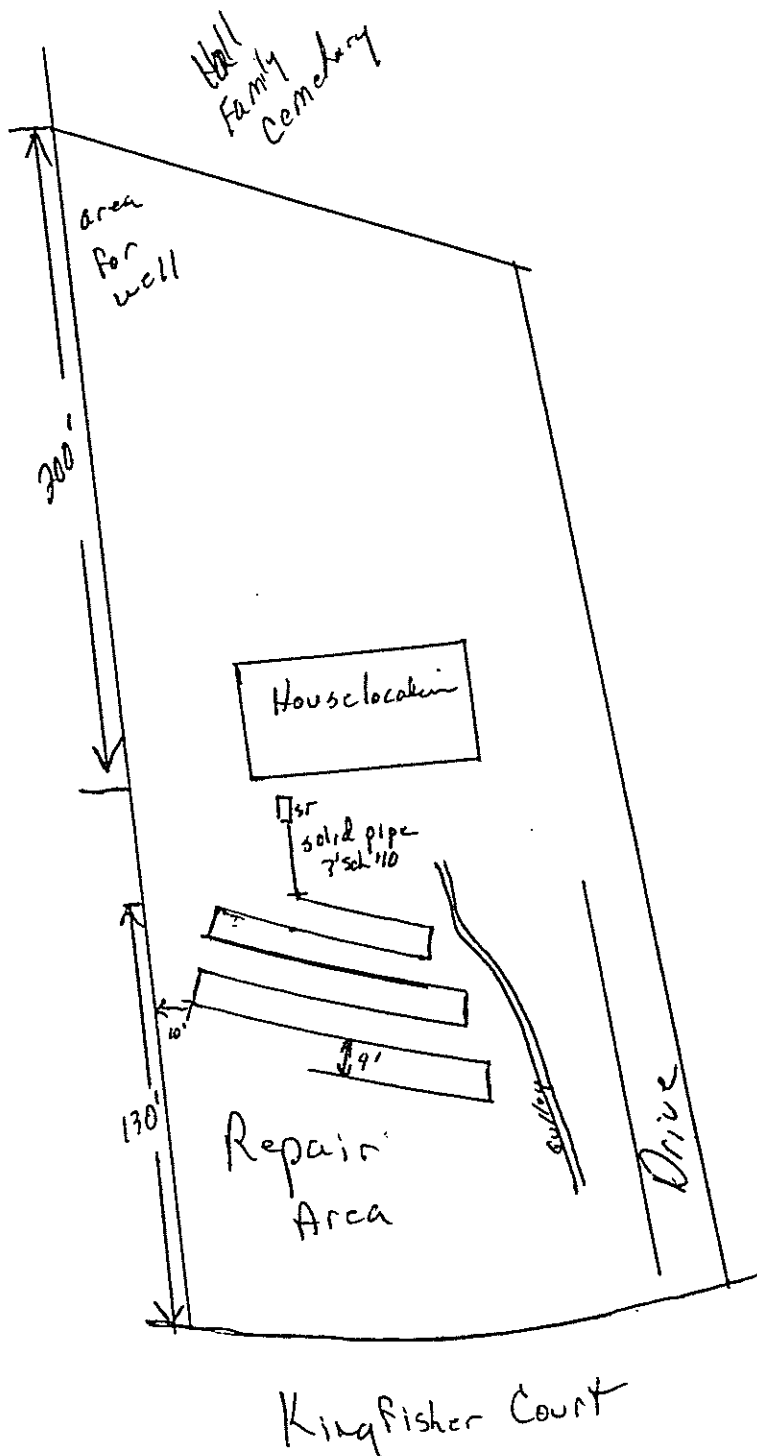
licant: KEJ Marketing

Site Plan

Permit Number:

98172

e - 1" = 100'



Montgomery County Health Department

Environmental Health Section

Applicant: KEJ Marketing Permit Number: 98170
Owner: KEJ Marketing PIN #: _____
Proposed Use: House Water Supply: private
Division or SR#: Heron Bay Lot: 27 Section #: 10 Map #: _____
Address: Kingfisher Ct.

Improvement Permit

Flow: _____ System Design Flow: 360 GPD Type of Wastewater: domestic
Bedrooms: 3 Occupants: _____ Basement: Yes Basement Fixtures: No
Employees: NA # of Seats: NA Type of System: Pump Conventional
LTAR for Initial System: 0.30 GPD/Sq. Ft. Septic Tank: 900 Gallon Pump Tank: 900 Gallon
Inch Length: 400 linear ft Depth: 24 in. Width: 36 in. Total Stone Depth: 12 in.
Repair System: Pump Conventional LTAR for Repair System: 0.30 GPD/Sq. Ft.

Improvement Permit Conditions

This permit is a site approval for the future installation of an on-site wastewater system and is subject to revocation if the site plans or intended use changes from those shown above or on the application. This Improvement Permit must be accompanied by a construction authorization prior to obtaining any building permits and before the wastewater system is installed. This improvement permit is valid for a period of five years unless otherwise noted.

Improvement Permit Issued By: David Weyll R.G. Date: 4/3/98

Authorization For Wastewater System Construction

This Authorization For Wastewater System Construction is valid for 5 years (60 months) from the date of issuance. (1) Wastewater system construction and installation must meet all conditions and specifications as set forth in the above Improvement Permit and attached site plan with system details. Construction and installation must also meet all requirements set forth in the Rules Governing Sanitary Sewage Collection, Treatment, And Disposal Systems and any other applicable rules and laws. (2) The wastewater system shall not be covered or placed into use until inspected by the Montgomery County Health Department and an authorization permit issued. (3) Any alteration in site or soil conditions (including location of structures and appurtenances) or modifications in use, wastewater flow, or wastewater characteristics as specified in the associated Improvement Permit and location, may subject this Authorization and associated permit(s) to revocation.

Construction Authorization Conditions

install pump per attached diagram, keep system shallow and follow
footprint, keep 100' separation from wells

Number of Attachment: 2
Construction Authorization By: David Weyll R.G. Date: 4/3/98

Montgomery County Health Department

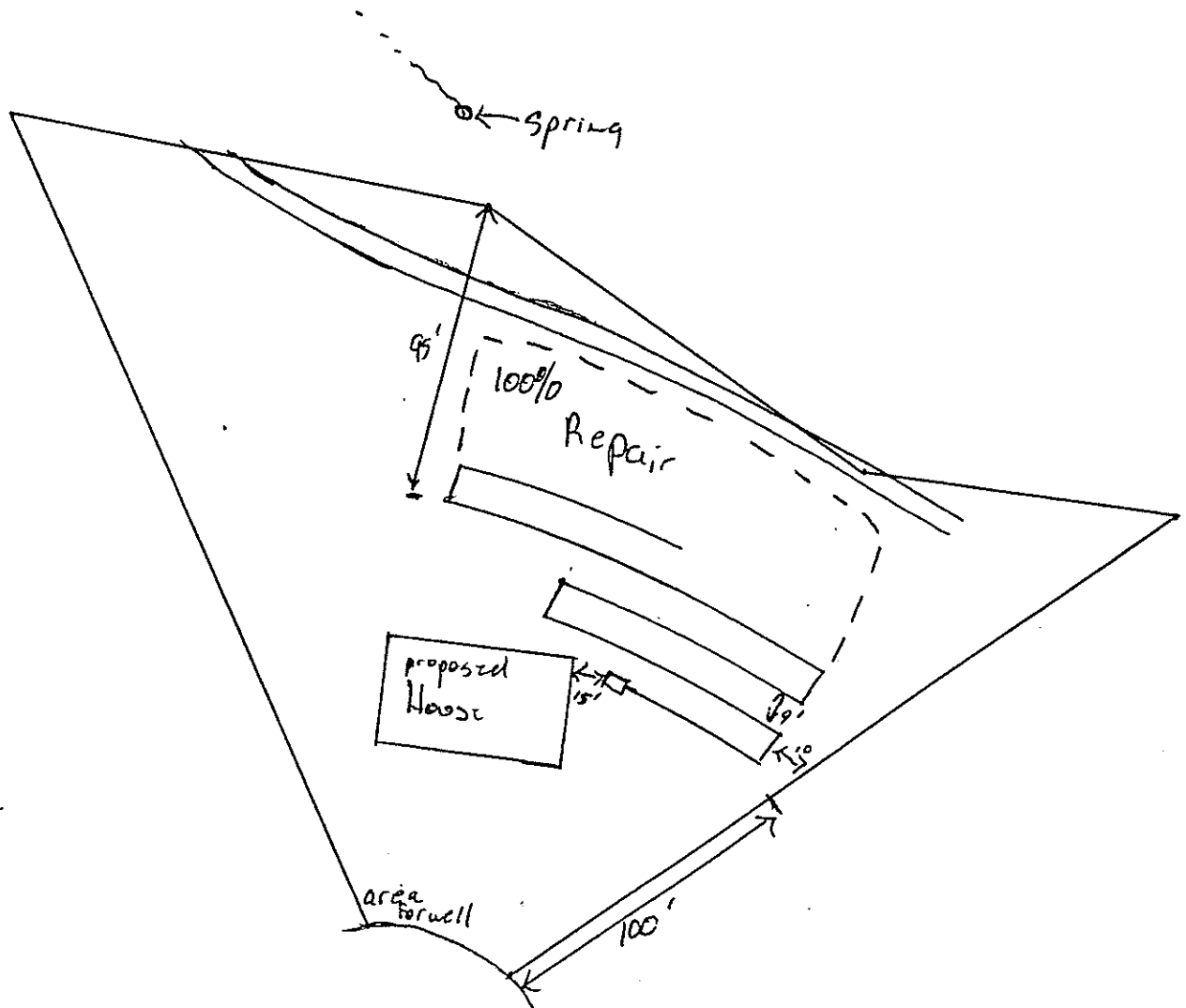
Environmental Health Section

Applicant: KEJ Marketing

Site Plan

Permit Number: 98169

Scale - 1" = 60'



Montgomery County Health Department

Environmental Health Section

Applicant: Randy Allen Permit Number: 98123
Firm: KEI Marketing PIN #: _____
Proposed Use: House Water Supply: private
Division or SR#: Heron Bay Lot: 25 Section #: 10 Map #: _____
Address: kingfisher Ct.

Improvement Permit

Flow: _____ System Design Flow: 360 GPD Type of Wastewater: domestic
Rooms: 3 Occupants: _____ Basement: No Basement Fixtures: No
Employees: NA # of Seats: NA Type of System: Innovative
LTAR for Initial System: 0.30 GPD/Sq. Ft. Septic Tank: 900 Gallon Pump Tank: 900 Gallon
Inch Length: 300 linear ft Depth: 24 in. Width: 36 in. Total Stone Depth: NA
Repair System: PPBPS LTAR for Repair System: 0.30 GPD/Sq. Ft.

Improvement Permit Conditions

System must be polystyrene aggregate or chamber, install system per
manufacturers specifications

This permit is a site approval for the future installation of an on-site wastewater system and is subject to revocation if the site plans or intended use changes from those shown above or on the application. This Improvement Permit must be accompanied by a construction authorization prior to obtaining any building permits and before the wastewater system is installed. This improvement permit is valid for a period of five years unless otherwise noted.

Improvement Permit Issued By: David W. Giffels Date: 3/24/98

Authorization For Wastewater System Construction

Authorization For Wastewater System Construction is valid for 5 years (60 months) from the date of issuance. (1) Wastewater system construction and installation must meet all conditions and specifications as set forth in the above Improvement Permit and attached site plan with system details. Construction and installation must also meet all requirements set forth in the Rules Governing Sanitary Sewage Collection, Treatment, And Disposal Systems and any other applicable rules and laws. (2) The wastewater system shall not be covered or placed into use until inspected by the Montgomery County Health Department and an authorization permit issued. (3) Any alteration in site or soil conditions (including location of structures and appurtenances) or modifications in use, wastewater flow, or wastewater characteristics as specified in the associated Improvement Permit and location, may subject this Authorization and associated permit(s) to revocation.

Construction Authorization Conditions

Keep system shallow and follow contour, install pump per attached design,
keep any part of system 100' from wells

Number of Attachment: 2
Construction Authorization By: David W. Giffels Date: 3/24/98

Montgomery County Health Department

Environmental Health Section

Applicant: Randy Allen Permit Number: 98122
Firm: KEJ Marketing PIN #: _____
Proposed Use: House Water Supply: private
Division or SR#: Heron Bay Lot: 24 Section #: 10 Map #: _____
Sections: Kingfisher Ct.

Improvement Permit

Flow: _____ System Design Flow: 360 GPD Type of Wastewater: domestic
Rooms: 3 Occupants: _____ Basement: No Basement Fixtures: No
Employees: NA # of Seats: NA Type of System: Pump Conventional
LAR for Initial System: 0.30 GPD/Sq. Ft. Septic Tank: 900 Gallon Pump Tank: 900 Gallon
Inch Length: 400 linear ft Depth: 24 in. Width: 36 in. Total Stone Depth: 12 in.
Inlet System: Pump Conventional LTAR for Repair System: 0.30 GPD/Sq. Ft.

Improvement Permit Conditions

This permit is a site approval for the future installation of an on-site wastewater system and is subject to revocation if the site plans or intended use changes from those shown above or on the application. This Improvement Permit must be accompanied by a construction authorization prior to obtaining any building permits and before the wastewater system is installed. This improvement permit is valid for a period of five years unless otherwise noted.

Improvement Permit Issued By: David W. Eggle R.S. Date: 3/24/98

Authorization For Wastewater System Construction

Authorization For Wastewater System Construction is valid for 5 years (60 months) from the date of issuance. (1) Wastewater system construction and installation must meet all conditions and specifications as set forth in the above Improvement Permit and attached site plan with system details. Construction and installation must also meet all requirements set forth in the Rules and Regulations for Sanitary Sewage Collection, Treatment, And Disposal Systems and any other applicable rules and laws. (2) The wastewater system shall not be covered or placed into use until inspected by the Montgomery County Health Department and an authorization permit issued. (3) Any alteration in site or soil conditions (including location of structures and appurtenances) or changes in use, wastewater flow, or wastewater characteristics as specified in the associated Improvement Permit and construction, may subject this Authorization and associated permit(s) to revocation.

Construction Authorization Conditions

1. The system shall be shallow and follow contour, install pump per attached design.
2. No part of system 100' from wells

Number of Attachment: 2
Construction Authorization By: David W. Eggle R.S. Date: 3/24/98

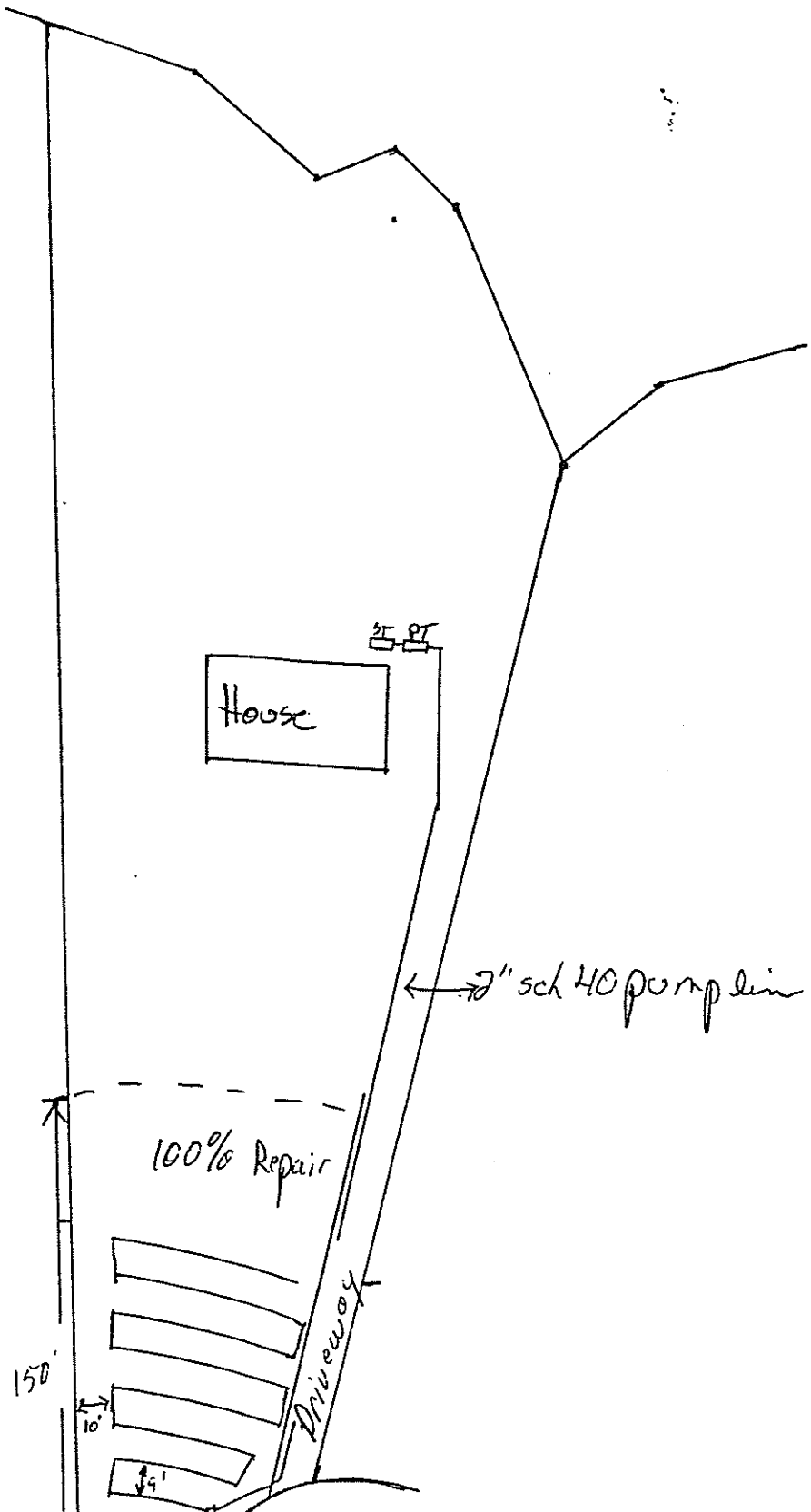
Montgomery County Health Department Environmental Health Section

Applicant: Randy Allen

Site Plan

Permit Number: 98122

Scale - 1" =



Montgomery County Health Department

Environmental Health Section

Applicant: Randy Allen Permit Number: 98121
Owner: KEJ Marketing PIN #:
Proposed Use: House Water Supply: private
Subdivision or SR#: Heron Bay Lot: 23 Section #: 10 Map #:
Locations: Kingfisher Ct.

Improvement Permit

Flow: System Design Flow: 360 GPD Type of Wastewater: domestic
Bedrooms: 3 Occupants: Basement: No Basement Fixtures: No
Employees: NA # of Seats: NA Type of System: Pump Conventional
LTAR for Initial System: 0.30 GPD/Sq. Ft. Septic Tank: 900 Gallon Pump Tank: 900 Gallon
Inch Length: 400 linear ft Depth: 24 in. Width: 36 in. Total Stone Depth: 12 in.
Repair System: Pump Conventional LTAR for Repair System: 0.30 GPD/Sq. Ft.

Improvement Permit Conditions

This permit is a site approval for the future installation of an on-site wastewater system and is subject to revocation if the site plans or intended use changes from those shown above or on the application. This Improvement Permit must be accompanied by a construction authorization prior to obtaining any building permits and before the wastewater system is installed. This improvement is valid for a period of five years unless otherwise noted.

Improvement Permit Issued By: David W. Wyll R.S. Date: 3/24/98

Authorization For Wastewater System Construction

This Authorization For Wastewater System Construction is valid for 5 years (60 months) from the date of issuance. (1) Wastewater system construction and installation must meet all conditions and specifications as set forth in the above Improvement Permit and attached site plan with system details. Construction and installation must also meet all requirements set forth in the Rules governing Sanitary Sewage Collection, Treatment, And Disposal Systems and any other applicable rules and laws. (2) The wastewater system shall not be covered or placed into use until inspected by the Montgomery County Health Department and an operation permit issued. (3) Any alteration in site or soil conditions (including location of structures and appurtenances) or modifications in use, wastewater flow, or wastewater characteristics as specified in the associated Improvement Permit and application, may subject this Authorization and associated permit(s) to revocation.

Construction Authorization Conditions

Keep system shallow and follow contour, install pump per attached design,
Keep any part of system 100' from wells

Number of Attachment: 2
Construction Authorization By: David W. Wyll R.S. Date: 3/24/98

Montgomery County Health Department

Environmental Health Section

Applicant: Randy Allen Permit Number: 98120
 Owner: KEJ Marketing PIN #:
 Proposed Use: House Water Supply: private
 Subdivision or SR#: Heron Bay Lot: 22 Section #: 10 Map #:
 Directions: Kingfisher CL.

Improvement Permit

New System Design Flow: 360 GPD Type of Wastewater: domestic
 Bedrooms: 3 Occupants: Basement: No Basement Fixtures: No
 Employees: NA # of Seats: NA Type of System: Pump Conventional
 LTAR for Initial System: 0.30 GPD/Sq. Ft. Septic Tank: 900 Gallon Pump Tank: 900 Gallon
 Trench Length: 400 linear ft Depth: 24 in. Width: 36 in. Total Stone Depth: 12 in.
 Repair System: Pump Conventional LTAR for Repair System: 0.30 GPD/Sq. Ft.

Improvement Permit Conditions

This permit is a site approval for the future installation of an on-site wastewater system and is subject to revocation if the site plans or intended use changes from those shown above or on the application. This Improvement Permit must be accompanied by a construction authorization prior to obtaining any building permits and before the wastewater system is installed. This improvement is valid for a period of five years unless otherwise noted.

Improvement Permit Issued By: David W. [Signature] Date: 3/24/98

Authorization For Wastewater System Construction

This Authorization For Wastewater System Construction is valid for 5 years (60 months) from the date of issuance. (1) Wastewater system construction and installation must meet all conditions and specifications as set forth in the above Improvement Permit and the attached site plan with system details. Construction and installation must also meet all requirements set forth in the Rules Governing Sanitary Sewage Collection, Treatment, And Disposal Systems and any other applicable rules and laws. (2) The wastewater system shall not be covered or placed into use until inspected by the Montgomery County Health Department and an Operation Permit issued. (3) Any alteration in site or soil conditions (including location of structures and appurtenances) or modifications in use, wastewater flow, or wastewater characteristics as specified in the associated Improvement Permit and application, may subject this Authorization and associated permit(s) to revocation.

Construction Authorization Conditions

keep system shallow and follow contour, install pump per attached design.
keep any part of system 100' from wells

Number of Attachment: 2 David W. [Signature] Date: 3/24/98

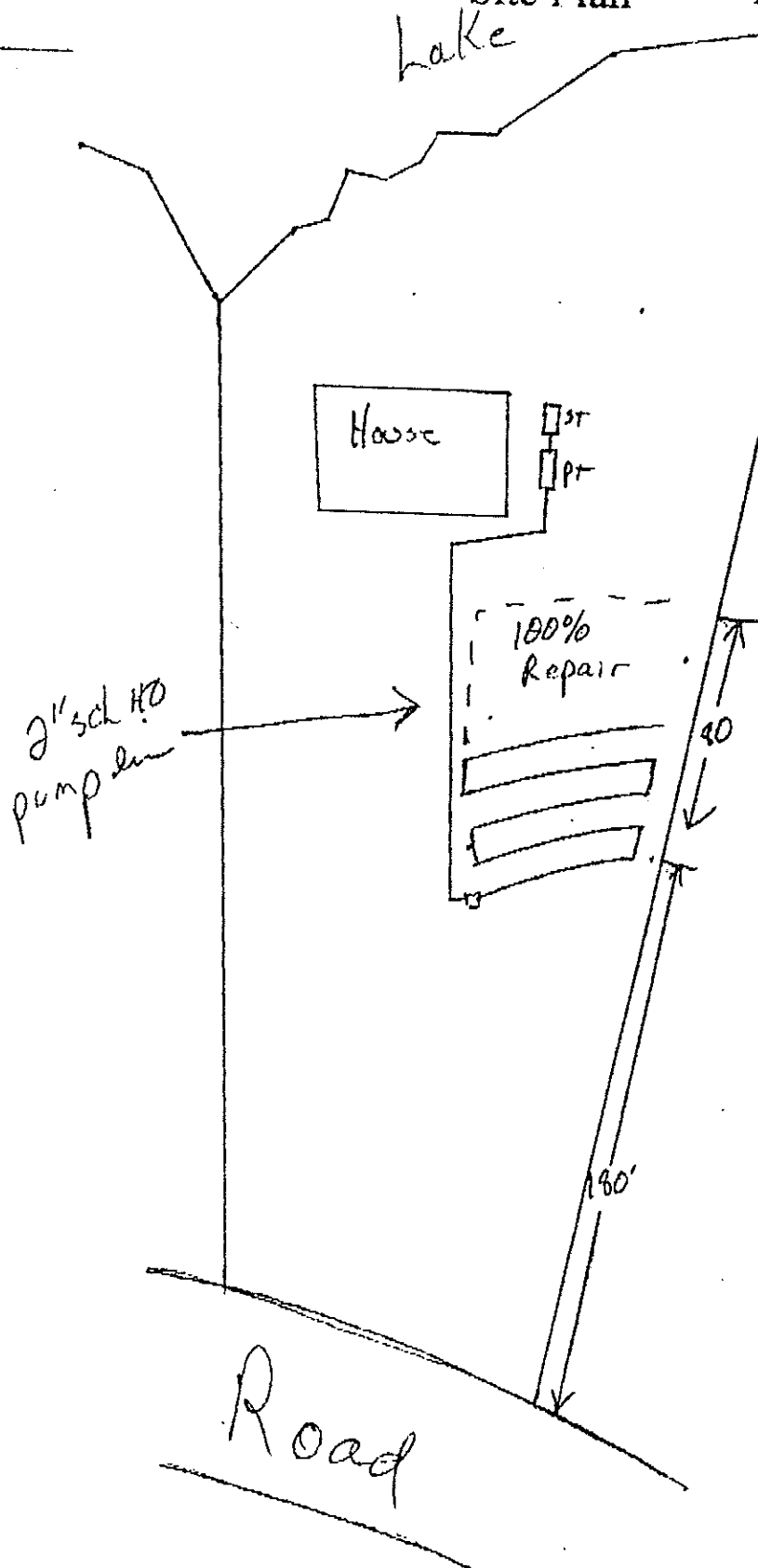
Montgomery County Health Department
Environmental Health Section

Applicant: Randy Allen

Site Plan

Permit Number: 98120

Scale - 1" =



Montgomery County Health Department

Environmental Health Section

Applicant: Randy Allen Permit Number: 98119
Firm: KEJ Marketing PIN #: _____
Proposed Use: House Water Supply: private
Division or SR#: Heron Bay Lot: 21 Section #: 10 Map #: _____
Address: Kingfisher Ct.

Improvement Permit

Flow: _____ System Design Flow: 360 GPD Type of Wastewater: domestic
Rooms: 3 Occupants: _____ Basement: No Basement Fixtures: No
Employees: NA # of Seats: NA Type of System: Innovative
LTAR for Initial System: 0.30 GPD/Sq. Ft. Septic Tank: 900 Gallon Pump Tank: 900 Gallon
Inch Length: 300 linear ft Depth: 24 in. Width: 36 in. Total Stone Depth: NA
Repair System: Innovative LTAR for Repair System: 0.30 GPD/Sq. Ft.

Improvement Permit Conditions

System must be polystyrene aggregate or chamber, install system per manufacturers specifications

This permit is a site approval for the future installation of an on-site wastewater system and is subject to revocation if the site plans or intended use changes from those shown above or on the application. This Improvement Permit must be accompanied by a construction authorization prior to obtaining any building permits and before the wastewater system is installed. This improvement permit is valid for a period of five years unless otherwise noted.

Improvement Permit Issued By: David Weyll R.S. Date: 3/24/98

Authorization For Wastewater System Construction

This Authorization For Wastewater System Construction is valid for 5 years (60 months) from the date of issuance. (1) Wastewater system construction and installation must meet all conditions and specifications as set forth in the above Improvement Permit and attached site plan with system details. Construction and installation must also meet all requirements set forth in the Rules governing Sanitary Sewage Collection, Treatment, And Disposal Systems and any other applicable rules and laws. (2) The wastewater system shall not be covered or placed into use until inspected by the Montgomery County Health Department and an operation permit issued. (3) Any alteration in site or soil conditions (including location of structures and appurtenances) or modifications in use, wastewater flow, or wastewater characteristics as specified in the associated Improvement Permit and application, may subject this Authorization and associated permit(s) to revocation.

Construction Authorization Conditions

Keep system shallow and follow contour, install pump per attached design.
Keep any part of system 100' from wells

Number of Attachment: 2
Construction Authorization By: David Weyll R.S. Date: 3/24/98

Montgomery County Health Department
Environmental Health Section

Applicant: Randy Allen Permit Number: 98118
Owner: KEJ Marketing PIN #: _____
Proposed Use: House Water Supply: private
Division or SR#: Heron Bay Lot: 20 Section #: 10 Map #: _____
Sections: Kingfisher Ct.

Improvement Permit

Flow: _____ System Design Flow: 360 GPD Type of Wastewater: domestic
Bedrooms: 3 Occupants: _____ Basement: No Basement Fixtures: No
Employees: NA # of Seats: NA Type of System: Innovative
LTAR for Initial System: 0.30 GPD/Sq. Ft. Septic Tank: 900 Gallon Pump Tank: 900 Gallon
Inch Length: 300 linear ft Depth: 24 in. Width: 36 in. Total Stone Depth: NA
Repair System: PPBPS LTAR for Repair System: 0.30 GPD/Sq. Ft.

Improvement Permit Conditions

System must be polystyrene aggregate or chamber, install system per
manufacturers specifications

This permit is a site approval for the future installation of an on-site wastewater system and is subject to revocation if the site plans or intended use changes from those shown above or on the application. This Improvement Permit must be accompanied by a construction authorization prior to obtaining any building permits and before the wastewater system is installed. This improvement permit is valid for a period of five years unless otherwise noted.

Improvement Permit Issued By: David Weygall RS Date: 3/24/98

Authorization For Wastewater System Construction

This Authorization For Wastewater System Construction is valid for 5 years (60 months) from the date of issuance. (1) Wastewater system construction and installation must meet all conditions and specifications as set forth in the above Improvement Permit and attached site plan with system details. Construction and installation must also meet all requirements set forth in the Rules governing Sanitary Sewage Collection, Treatment, And Disposal Systems and any other applicable rules and laws. (2) The wastewater system shall not be covered or placed into use until inspected by the Montgomery County Health Department and an authorization permit issued. (3) Any alteration in site or soil conditions (including location of structures and appurtenances) or modifications in use, wastewater flow, or wastewater characteristics as specified in the associated Improvement Permit and application, may subject this Authorization and associated permit(s) to revocation.

Construction Authorization Conditions

Keep system shallow and follow contour, install pump per attached design,
keep any part of system 100' from wells

Number of Attachment: 2
Construction Authorization By: David Weygall RS Date: 3/24/98

Montgomery County Health Department

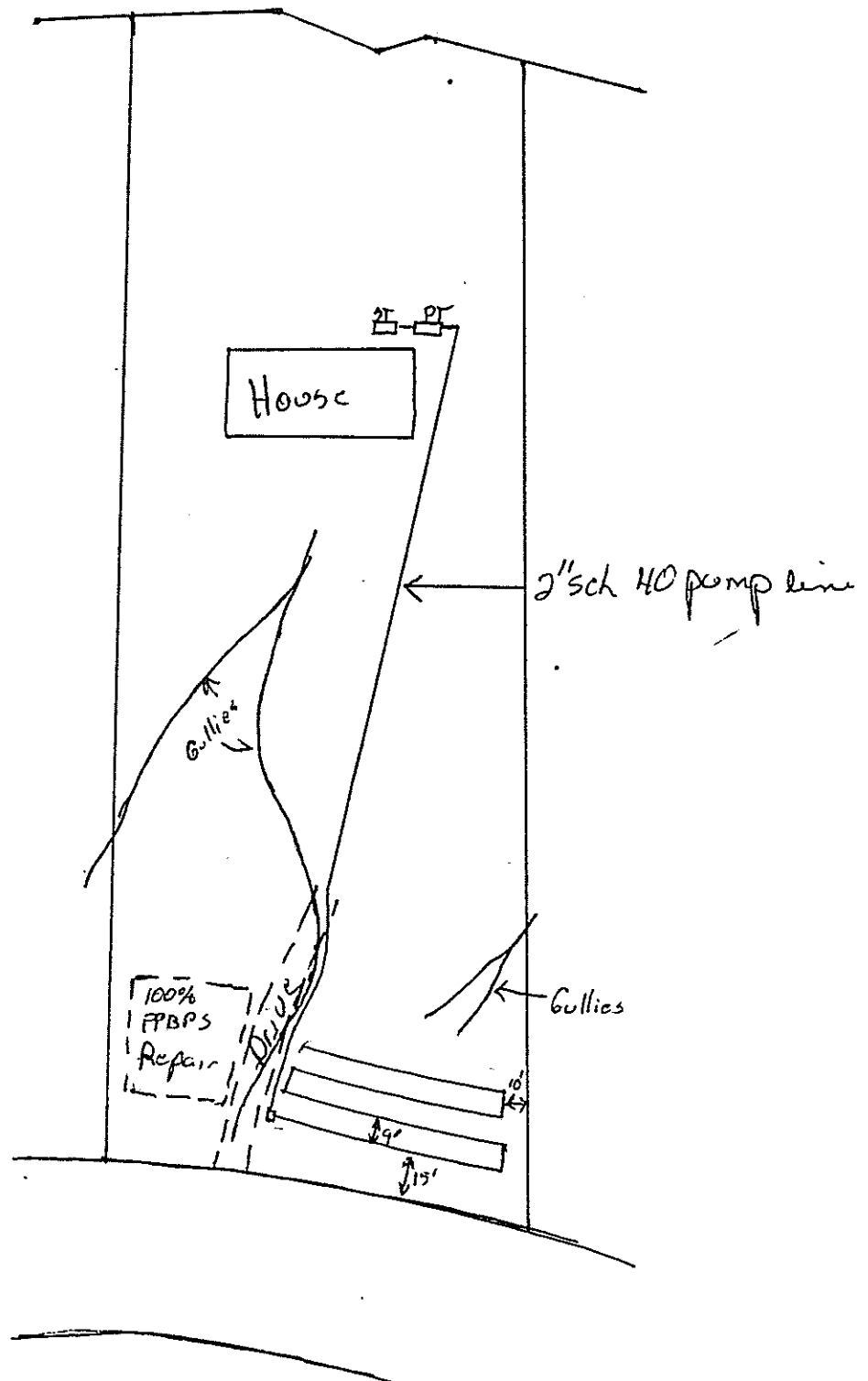
Environmental Health Section

Applicant: Randy Allen

Site Plan

Permit Number: 98118

Scale - 1" = 60'



Montgomery County Health Department

Environmental Health Section

Applicant: Randy Allen Permit Number: 98117
Owner: KEJ Marketing PIN #:
Proposed Use: House Water Supply: private
Division or SR#: Heron Bay Lot: 19 Section #: 10 Map #:
Address: Kingfisher Ct.

Improvement Permit

Flow: System Design Flow: 360 GPD Type of Wastewater: domestic
Rooms: 3 Occupants: Basement No Basement Fixtures: No
Employees: NA # of Seats NA Type of System: Innovative
LTAR for Initial System: 0.30 GPD/Sq. Ft. Septic Tank 900 Gallon Pump Tank 900 Gallon
Inch Length: 300 linear ft Depth: 24 in. Width: 36 in. Total Stone Depth: NA
Infiltration System: Innovative LTAR for Repair System: 0.30 GPD/Sq. Ft.

Improvement Permit Conditions

System must be polystyrene aggregate or chamber, install system per manufacturers specifications

This permit is a site approval for the future installation of an on-site wastewater system and is subject to revocation if the site plans or intended use changes from those shown above or on the application. This Improvement Permit must be accompanied by a construction authorization prior to obtaining any building permits and before the wastewater system is installed. This improvement permit is valid for a period of five years unless otherwise noted.

Improvement Permit Issued By: David Weyll RS Date: 3/24/98

Authorization For Wastewater System Construction

Authorization For Wastewater System Construction is valid for 5 years (60 months) from the date of issuance. (1) Wastewater system construction and installation must meet all conditions and specifications as set forth in the above Improvement Permit and attached site plan with system details. Construction and installation must also meet all requirements set forth in the Rules Governing Sanitary Sewage Collection, Treatment, And Disposal Systems and any other applicable rules and laws. (2) The wastewater system shall not be covered or placed into use until inspected by the Montgomery County Health Department and an authorization permit issued. (3) Any alteration in site or soil conditions (including location of structures and appurtenances) or modifications in use, wastewater flow, or wastewater characteristics as specified in the associated Improvement Permit and location, may subject this Authorization and associated permit(s) to revocation.

Construction Authorization Conditions

Keep system shallow and follow contour, install pump per attached design, keep any part of system 100' from wells

Number of Attachment: 2
Construction Authorization By: David Weyll RS Date: 3/24/98

Montgomery County Health Department

Environmental Health Section

Applicant: Randy Allen Permit Number: 98116
Firm: KEJ Marketing PIN #: _____
Proposed Use: House Water Supply: private
Division or SR#: Heron Bay Lot: 18 Section #: 10 Map #: _____
Address: Kingfisher Ct.

Improvement Permit

Flow: _____ System Design Flow: 360 GPD Type of Wastewater: domestic
Bedrooms: 3 Occupants: 3 Basement: No Basement Fixtures: No
Employees: NA # of Seats: NA Type of System: Pump Conventional
LTAR for Initial System: 0.30 GPD/Sq. Ft. Septic Tank: 900 Gallon Pump Tank: 900 Gallon
Inch Length: 400 linear ft Depth: 24 in. Width: 36 in. Total Stone Depth: 12 in.
Repair System: Pump Conventional LTAR for Repair System: 0.30 GPD/Sq. Ft.

Improvement Permit Conditions

This permit is a site approval for the future installation of an on-site wastewater system and is subject to revocation if the site plans or intended use changes from those shown above or on the application. This Improvement Permit must be accompanied by a construction authorization prior to obtaining any building permits and before the wastewater system is installed. This improvement permit is valid for a period of five years unless otherwise noted.

Improvement Permit Issued By: David Weyell R.S. Date: 3/24/98

Authorization For Wastewater System Construction

This Authorization For Wastewater System Construction is valid for 5 years (60 months) from the date of issuance. (1) Wastewater system construction and installation must meet all conditions and specifications as set forth in the above Improvement Permit and attached site plan with system details. Construction and installation must also meet all requirements set forth in the Rules governing Sanitary Sewage Collection, Treatment, And Disposal Systems and any other applicable rules and laws. (2) The wastewater system shall not be covered or placed into use until inspected by the Montgomery County Health Department and an authorization permit issued. (3) Any alteration in site or soil conditions (including location of structures and appurtenances) or modifications in use, wastewater flow, or wastewater characteristics as specified in the associated Improvement Permit and location, may subject this Authorization and associated permit(s) to revocation.

Construction Authorization Conditions

Repair system shallow and follow contour, install pump per attached design, keep any part of system 100' from wells

Number of Attachment: 2
Construction Authorization By: David Weyell R.S. Date: 3/24/98

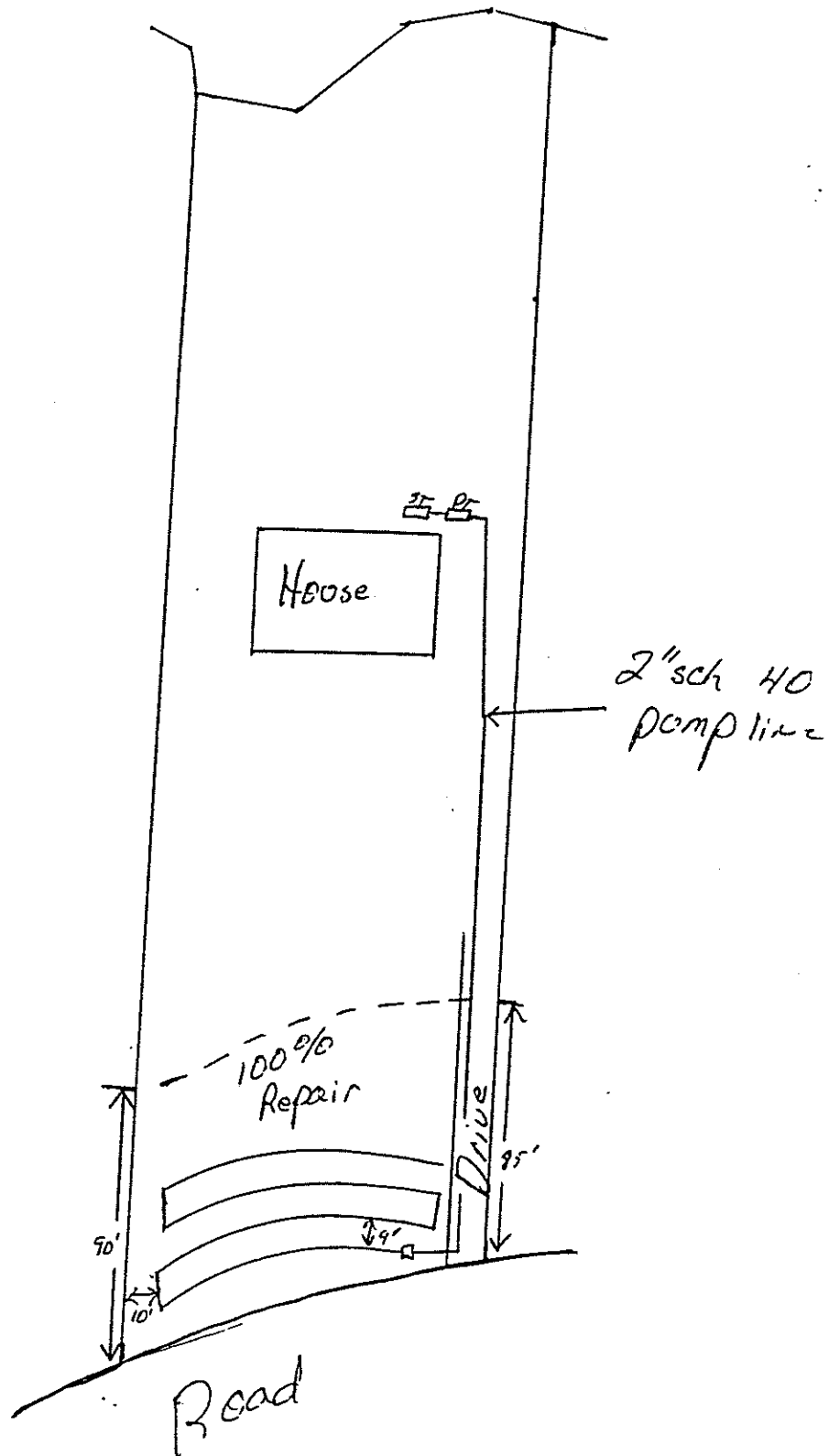
Montgomery County Health Department
Environmental Health Section

Applicant: Randy Allen

Site Plan
Lake

Permit Number: 98116

Scale - 1" = 60'



Montgomery County Health Department

Environmental Health Section

Applicant: Randy Allen Permit Number: 98115
Owner: KEJ Marketing PIN #:
Proposed Use: House Water Supply: private
Division or SR#: Heron Bay Lot: 17 Section #: 10 Map #:
Address: Kingfisher Ct.

Improvement Permit

Flow: System Design Flow: 360 GPD Type of Wastewater: domestic
Rooms: 3 Occupants: Basement: No Basement Fixtures: No
Employees: NA # of Seats: NA Type of System: Pump Conventional
LTAR for Initial System: 0.30 GPD/Sq. Ft. Septic Tank: 900 Gallon Pump Tank: 900 Gallon
Pipe Length: 400 linear ft Depth: 24 in. Width: 36 in. Total Stone Depth: NA
Pump System: Pump Conventional LTAR for Repair System: 0.30 GPD/Sq. Ft.

Improvement Permit Conditions

This permit is a site approval for the future installation of an on-site wastewater system and is subject to revocation if the site plans or intended use changes from those shown above or on the application. This Improvement Permit must be accompanied by a construction authorization prior to obtaining any building permits and before the wastewater system is installed. This improvement permit is valid for a period of five years unless otherwise noted.

Improvement Permit Issued By: David W. Eggle AS Date: 3/24/98

Authorization For Wastewater System Construction

Authorization For Wastewater System Construction is valid for 5 years (60 months) from the date of issuance. (1) Wastewater system construction and installation must meet all conditions and specifications as set forth in the above Improvement Permit and attached site plan with system details. Construction and installation must also meet all requirements set forth in the Rules Governing Sanitary Sewage Collection, Treatment, And Disposal Systems and any other applicable rules and laws. (2) The wastewater system shall not be covered or placed into use until inspected by the Montgomery County Health Department and an authorization permit issued. (3) Any alteration in site or soil conditions (including location of structures and appurtenances) or modifications in use, wastewater flow, or wastewater characteristics as specified in the associated Improvement Permit and application, may subject this Authorization and associated permit(s) to revocation.

Construction Authorization Conditions

Keep system shallow and follow contour, install pump per attached design, keep any part of system 100' from wells

Number of Attachment: 2
Construction Authorization By: David W. Eggle AS Date: 3/24/98

Montgomery County Health Department

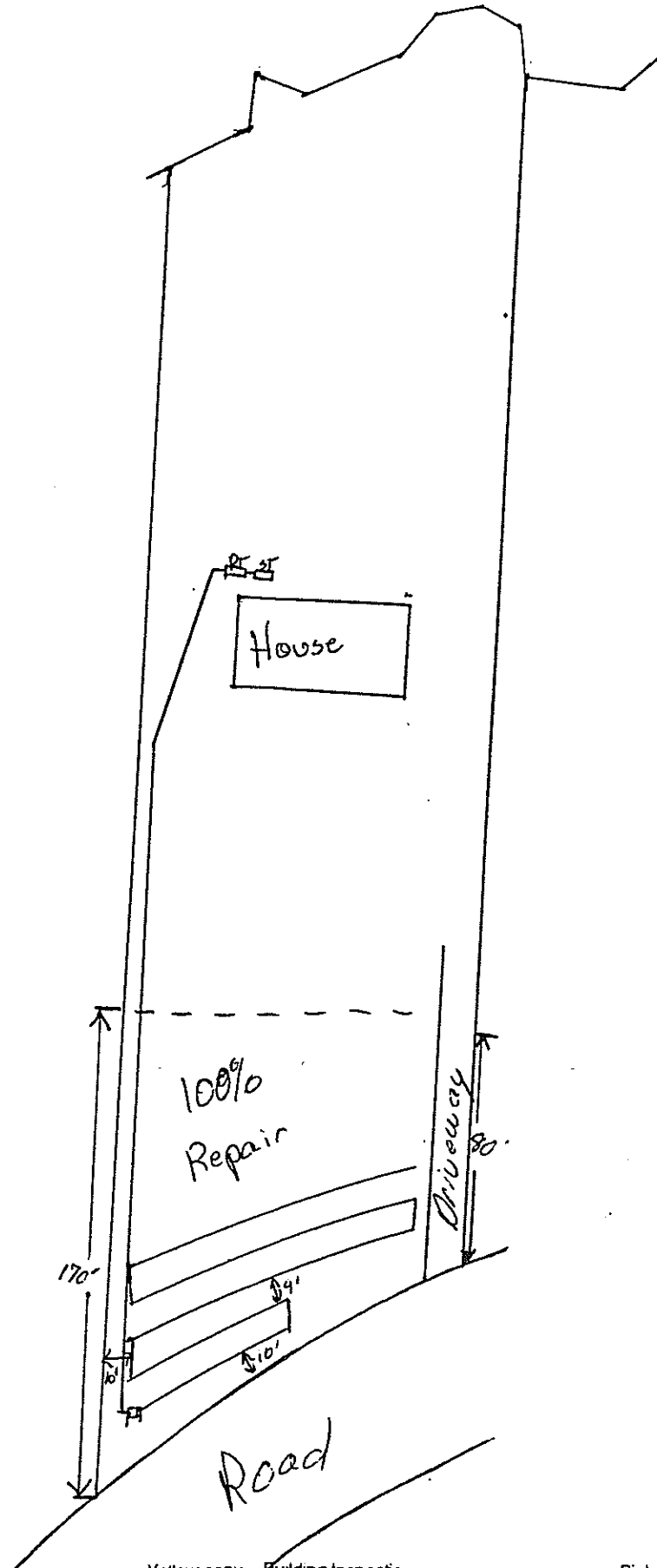
Environmental Health Section

Applicant: Randy Allen

^{lake}
Site Plan

Permit Number: 98115

Scale - 1" = 60'



Montgomery County Health Department

Environmental Health Section

Applicant: Randy Allen Permit Number: 98114
Owner: KEJ Marketing PIN #: _____
Proposed Use: House Water Supply: private
Division or SR#: Heron Bay Lot: 16 Section #: 10 Map #: _____
Locations: Corner of Whisper Lake Drive and Kingfisher Ct.

Improvement Permit

Flow: _____ System Design Flow: 360 GPD Type of Wastewater: domestic
Rooms: 3 Occupants: _____ Basement: No Basement Fixtures: No
Employees: NA # of Seats: NA Type of System: Innovative
LAR for Initial System: 0.30 GPD/Sq. Ft. Septic Tank: 900 Gallon Pump Tank: 900 Gallon
Inch Length: 300 linear ft Depth: 24 in. Width: 36 in. Total Stone Depth: NA
Repair System: Innovative LTAR for Repair System: 0.30 GPD/Sq. Ft.

Improvement Permit Conditions

System must be polystyrene aggregate or chamber, install system per manufacturers specifications

This permit is a site approval for the future installation of an on-site wastewater system and is subject to revocation if the site plans or intended use changes from those shown above or on the application. This Improvement Permit must be accompanied by a construction authorization prior to obtaining any building permits and before the wastewater system is installed. This improvement permit is valid for a period of five years unless otherwise noted.

Improvement Permit Issued By: David Weyfel RS Date: 3/24/98

Authorization For Wastewater System Construction

This Authorization For Wastewater System Construction is valid for 5 years (60 months) from the date of issuance. (1) Wastewater system construction and installation must meet all conditions and specifications as set forth in the above Improvement Permit and attached site plan with system details. Construction and installation must also meet all requirements set forth in the Rules governing Sanitary Sewage Collection, Treatment, And Disposal Systems and any other applicable rules and laws. (2) The wastewater system shall not be covered or placed into use until inspected by the Montgomery County Health Department and an Authorization Permit issued. (3) Any alteration in site or soil conditions (including location of structures and appurtenances) or modifications in use, wastewater flow, or wastewater characteristics as specified in the associated Improvement Permit and location, may subject this Authorization and associated permit(s) to revocation.

Construction Authorization Conditions

Keep system shallow and follow contour, install pump per attached design, keep any part of system 100' from wells

Number of Attachment: 2
Construction Authorization By: David Weyfel RS Date: 3/24/98

Montgomery County Health Department

Environmental Health Section

Applicant: Randy Allen Permit Number: 98113
Firm: KEJ Marketing PIN #:
Proposed Use: House Water Supply: private
Division or SR#: Heron Bay Lot: 15 Section #: 10 Map #:
Address: Whisper lake Drive

Improvement Permit

Flow: System Design Flow: 360 GPD Type of Wastewater: domestic
Rooms: 3 Occupants: Basement: No Basement Fixtures: No
Employees: NA # of Seats: NA Type of System: Innovative
LTAR for Initial System: 0.30 GPD/Sq. Ft. Septic Tank: 900 Gallon Pump Tank: 900 Gallon
Inch Length: 300 linear ft Depth: 24 in. Width: 36 in. Total Stone Depth: NA
Inlet System: Innovative LTAR for Repair System: 0.30 GPD/Sq. Ft.

Improvement Permit Conditions

System must be polystyrene aggregate or chamber, install system per
manufacturers specifications

This permit is a site approval for the future installation of an on-site wastewater system and is subject to revocation if the site plans or
intended use changes from those shown above or on the application. This Improvement Permit must be accompanied by a
construction authorization prior to obtaining any building permits and before the wastewater system is installed. This improvement
permit is valid for a period of five years unless otherwise noted.

Improvement Permit Issued By: David Wyll RS. Date: 3/24/98

Authorization For Wastewater System Construction

This Authorization For Wastewater System Construction is valid for 5 years (60 months) from the date of issuance. (1) Wastewater
system construction and installation must meet all conditions and specifications as set forth in the above Improvement Permit and
attached site plan with system details. Construction and installation must also meet all requirements set forth in the Rules
governing Sanitary Sewage Collection, Treatment, And Disposal Systems and any other applicable rules and laws. (2) The
wastewater system shall not be covered or placed into use until inspected by the Montgomery County Health Department and an
Improvement Permit issued. (3) Any alteration in site or soil conditions (including location of structures and appurtenances) or
variations in use, wastewater flow, or wastewater characteristics as specified in the associated Improvement Permit and
location, may subject this Authorization and associated permit(s) to revocation.

Construction Authorization Conditions

System shall be shallow and follow contour, install pump per attached
diagram, keep any part of system 100' from wells

Number of Attachment: 2
Construction Authorization By: David Wyll RS. Date: 3/24/98

Montgomery County Health Department

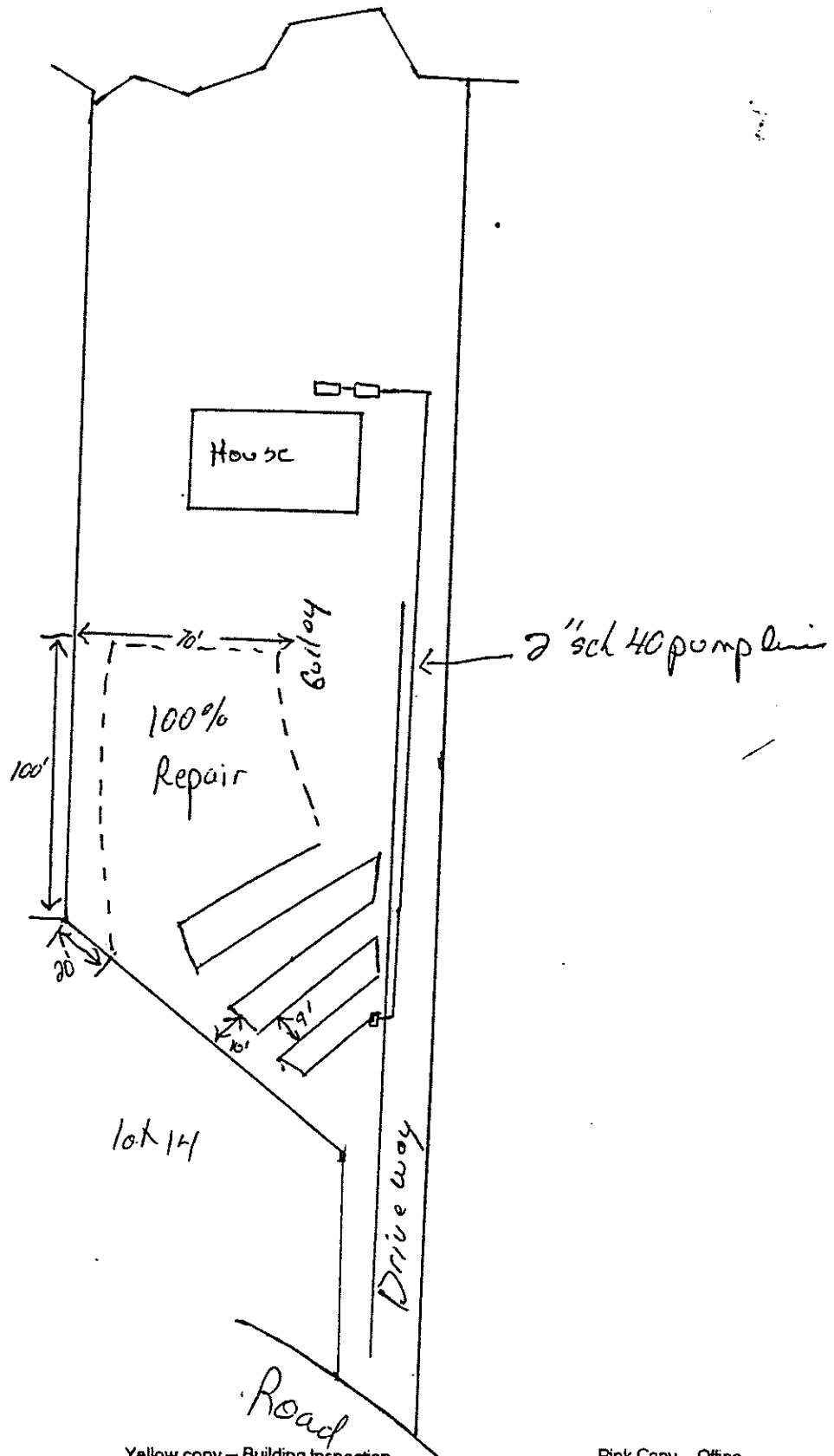
Environmental Health Section

cant: Randy Allen

Site Plan

Permit Number: 98113

- 1" = 60'



Montgomery County Health Department
Environmental Health Section

Applicant: Randy Allen Permit Number: 98112
Owner: KEJ Marketing PIN #: -
Proposed Use: House Water Supply: private
Division or SR#: Heron Bay Lot: 14 Section #: 10 Map #: -
Address: Whisper Lake Drive

Improvement Permit

Flow: 360 GPD Type of Wastewater: domestic
Rooms: 3 Occupants: - Basement: No Basement Fixtures: No
Employees: NA # of Seats: NA Type of System: Innovative
LTAR for Initial System: 0.30 GPD/Sq. Ft. Septic Tank: 900 Gallon Pump Tank: 900 Gallon
Inch Length: 300 linear ft Depth: 24 in. Width: 36 in. Total Stone Depth: NA
Innovative LTAR for Repair System: 0.30 GPD/Sq. Ft.

Improvement Permit Conditions

System must be polystyrene aggregate or chamber, install system per
manufacturers specifications

This permit is a site approval for the future installation of an on-site wastewater system and is subject to revocation if the site plans or
intended use changes from those shown above or on the application. This Improvement Permit must be accompanied by a
construction authorization prior to obtaining any building permits and before the wastewater system is installed. This improvement
permit is valid for a period of five years unless otherwise noted.

Improvement Permit Issued By: David Wygall R.S. Date: 3/24/98

Authorization For Wastewater System Construction

Authorization For Wastewater System Construction is valid for 5 years (60 months) from the date of issuance. (1) Wastewater
system construction and installation must meet all conditions and specifications as set forth in the above Improvement Permit and
attached site plan with system details. Construction and installation must also meet all requirements set forth in the Rules
governing Sanitary Sewage Collection, Treatment, And Disposal Systems and any other applicable rules and laws. (2) The
wastewater system shall not be covered or placed into use until inspected by the Montgomery County Health Department and an
Installation Permit issued. (3) Any alteration in site or soil conditions (including location of structures and appurtenances) or
variations in use, wastewater flow, or wastewater characteristics as specified in the associated Improvement Permit and
construction, may subject this Authorization and associated permit(s) to revocation.

Construction Authorization Conditions

System shall be shallow and follow contour, install pump per attached
diagram, keep any part of system 100' from wells

Number of Attachment: 2
Construction Authorization By: David Wygall R.S. Date: 3/24/98

Montgomery County Health Department

Environmental Health Section

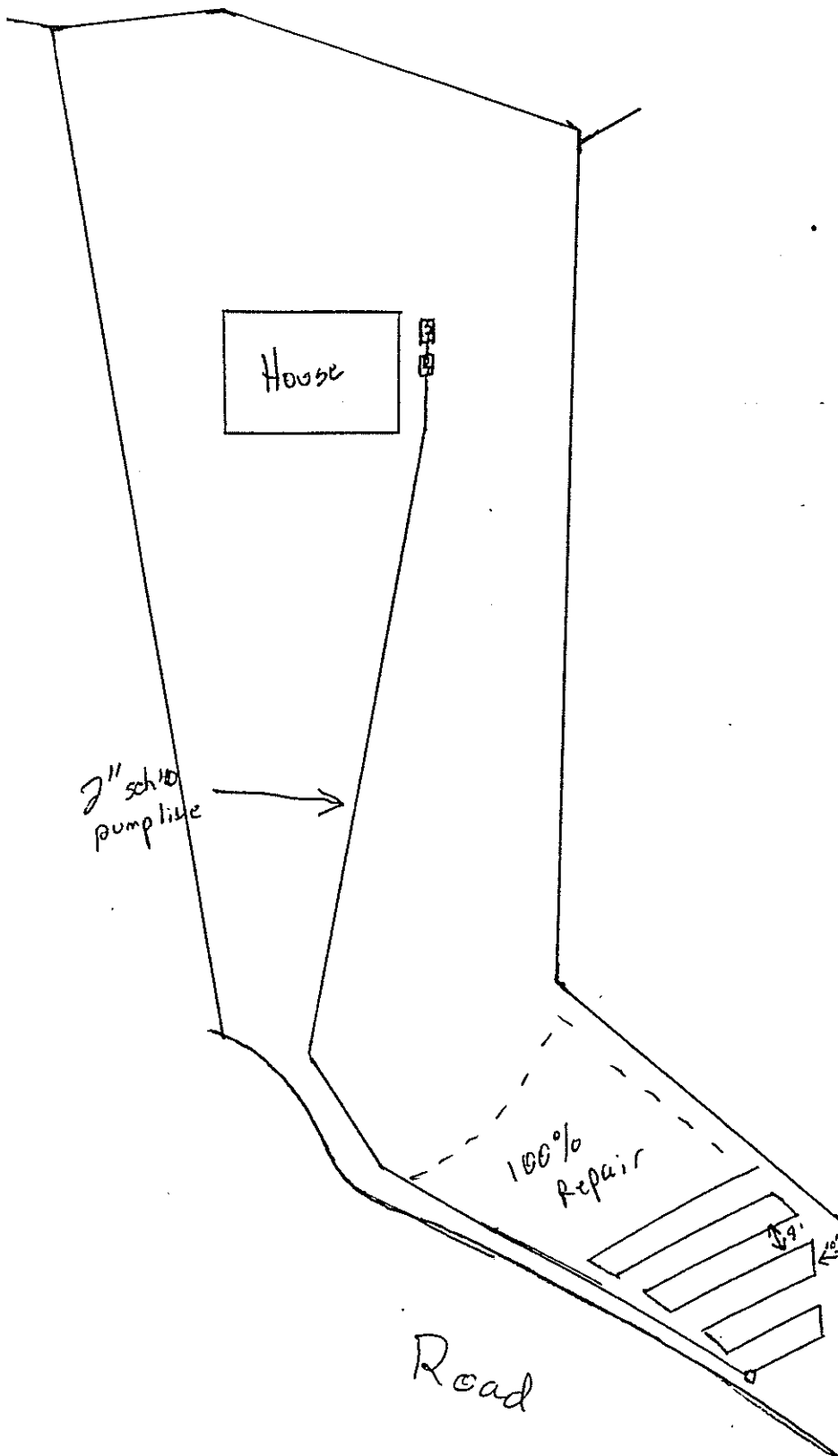
Ant: Randy Allen

Site Plan

Permit Number: _

98112

- 1" = 60' Lake



Montgomery County Health Department
Environmental Health Section

Applicant: Randy Allen Permit Number: 98111
Owner: KEJ Marketing PIN #: _____
Proposed Use: Home Water Supply: private
Subdivision or SR#: Heron Bay Lot: 13 Section #: 10 Map #: _____
Locations: Whisper Lake Drive

Improvement Permit

Flow: _____ System Design Flow: 360 GPD Type of Wastewater: domestic
Bedrooms: 3 Occupants: _____ Basement: No Basement Fixtures: No
Employees: NA # of Seats: NA Type of System: Innovative
LTAR for Initial System: 0.30 GPD/Sq. Ft. Septic Tank: 900 Gallon Pump Tank: 900 Gallon
Inch Length: 300 linear ft Depth: 18 in. Width: 36 in. Total Stone Depth: NA
Repair System: Innovative LTAR for Repair System: 0.30 GPD/Sq. Ft.

Improvement Permit Conditions

System must be polystyrene aggregate or chamber, install system per
manufacturers specifications

This permit is a site approval for the future installation of an on-site wastewater system and is subject to revocation if the site plans or
intended use changes from those shown above or on the application. This Improvement Permit must be accompanied by a
construction authorization prior to obtaining any building permits and before the wastewater system is installed. This improvement
is valid for a period of five years unless otherwise noted.

Improvement Permit Issued By: David Wyfill R.S. Date: 3/24/98

Authorization For Wastewater System Construction

This Authorization For Wastewater System Construction is valid for 5 years (60 months) from the date of issuance. (1) Wastewater
system construction and installation must meet all conditions and specifications as set forth in the above Improvement Permit and
attached site plan with system details. Construction and installation must also meet all requirements set forth in the Rules
governing Sanitary Sewage Collection, Treatment, And Disposal Systems and any other applicable rules and laws. (2) The
wastewater system shall not be covered or placed into use until inspected by the Montgomery County Health Department and an
operation Permit issued. (3) Any alteration in site or soil conditions (including location of structures and appurtenances) or
modifications in use, wastewater flow, or wastewater characteristics as specified in the associated Improvement Permit and
application, may subject this Authorization and associated permit(s) to revocation.

Construction Authorization Conditions

Keep system shallow and follow contour, keep any part of system 100' from
ditches, install pump per attached design

Number of Attachment: 2
Construction Authorization By: David Wyfill R.S. Date: 3/24/98

Montgomery County Health Department

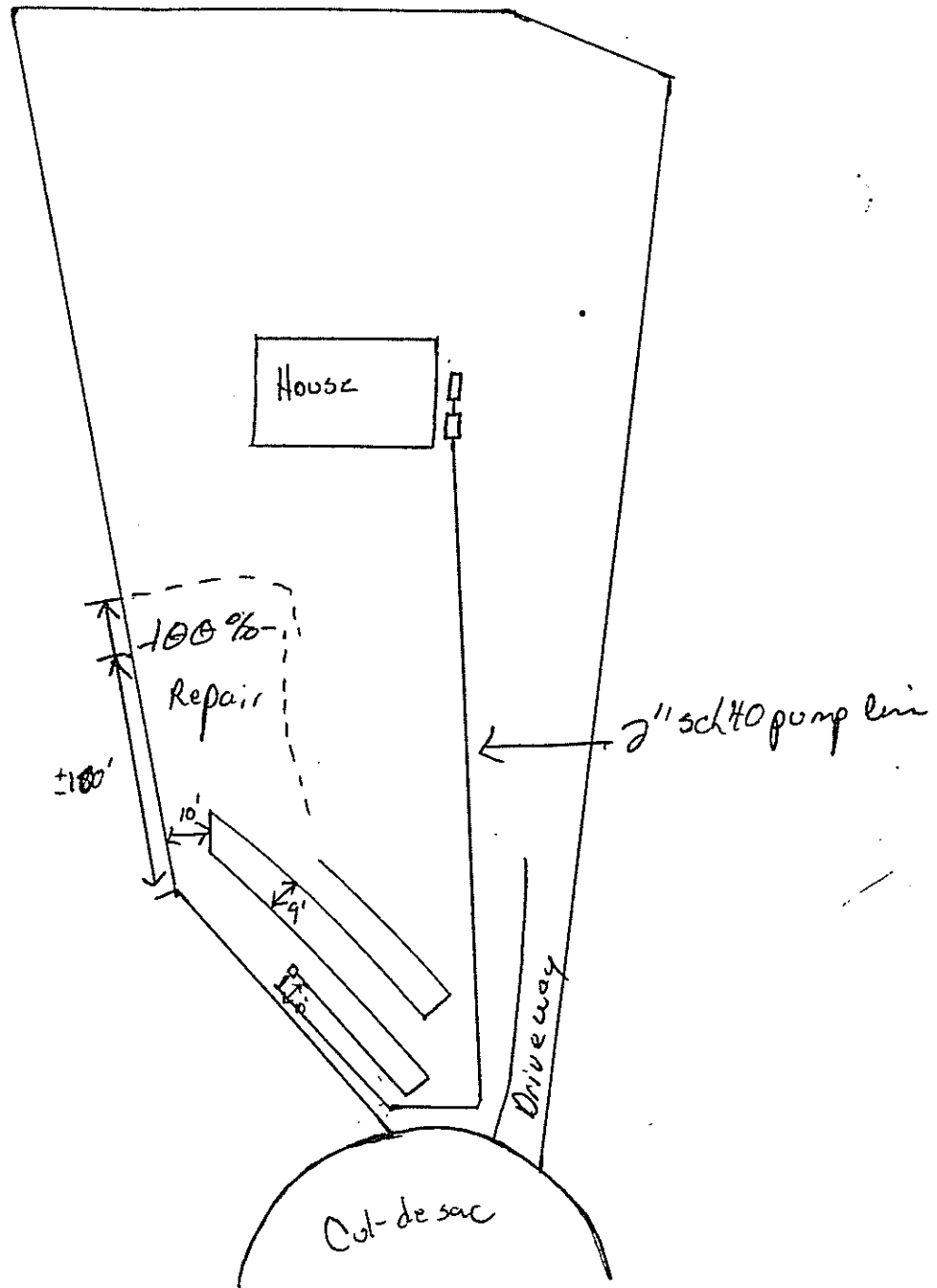
Environmental Health Section

Applicant: Randy Allen

Lake Site Plan

Permit Number: 98111

Scale - 1" = 100'



Montgomery County Health Department

Environmental Health Section

Applicant: Randy Allen Permit Number: 98110
Agent: KEJ Marketing PIN #: _____
Proposed Use: House Water Supply: private
Division or SR#: Heron Bay Lot: 12 Section #: 10 Map #: _____
Address: Whisper Lake Drive

Improvement Permit

Flow: _____ System Design Flow: 360 GPD Type of Wastewater: domestic
Rooms: 3 Occupants: _____ Basement: No Basement Fixtures: No
Employees: NA # of Seats: NA Type of System: Innovative
Flow for Initial System: 0.30 GPD/Sq. Ft. Septic Tank: 900 Gallon Pump Tank: 900 Gallon
Inch Length: 300 linear ft Depth: 18 in Width: 36 in Total Stone Depth: 12 in
Infiltration System: Innovative LTAR for Repair System: 0.30 GPD/Sq. Ft.

Improvement Permit Conditions

System must be polystyrene aggregate or chamber, install system per
manufacturers specifications

This permit is a site approval for the future installation of an on-site wastewater system and is subject to revocation if the site plans or
proposed use changes from those shown above or on the application. This Improvement Permit must be accompanied by a
construction authorization prior to obtaining any building permits and before the wastewater system is installed. This improvement
permit is valid for a period of five years unless otherwise noted.

Improvement Permit Issued By: David Whiggall RS Date: 3/24/98

Authorization For Wastewater System Construction

Authorization For Wastewater System Construction is valid for 5 years (60 months) from the date of issuance. (1) Wastewater
system construction and installation must meet all conditions and specifications as set forth in the above Improvement Permit and
attached site plan with system details. Construction and installation must also meet all requirements set forth in the Rules
governing Sanitary Sewage Collection, Treatment, And Disposal Systems and any other applicable rules and laws. (2) The
wastewater system shall not be covered or placed into use until inspected by the Montgomery County Health Department and an
Improvement Permit issued. (3) Any alteration in site or soil conditions (including location of structures and appurtenances) or
variations in use, wastewater flow, or wastewater characteristics as specified in the associated Improvement Permit and
construction, may subject this Authorization and associated permit(s) to revocation.

Construction Authorization Conditions

System shall be shallow and follow contour, keep any part of system 100' from
structures

Number of Attachment: 2
Construction Authorization By: David Whiggall RS Date: 3/24/98

Montgomery County Health Department

Environmental Health Section

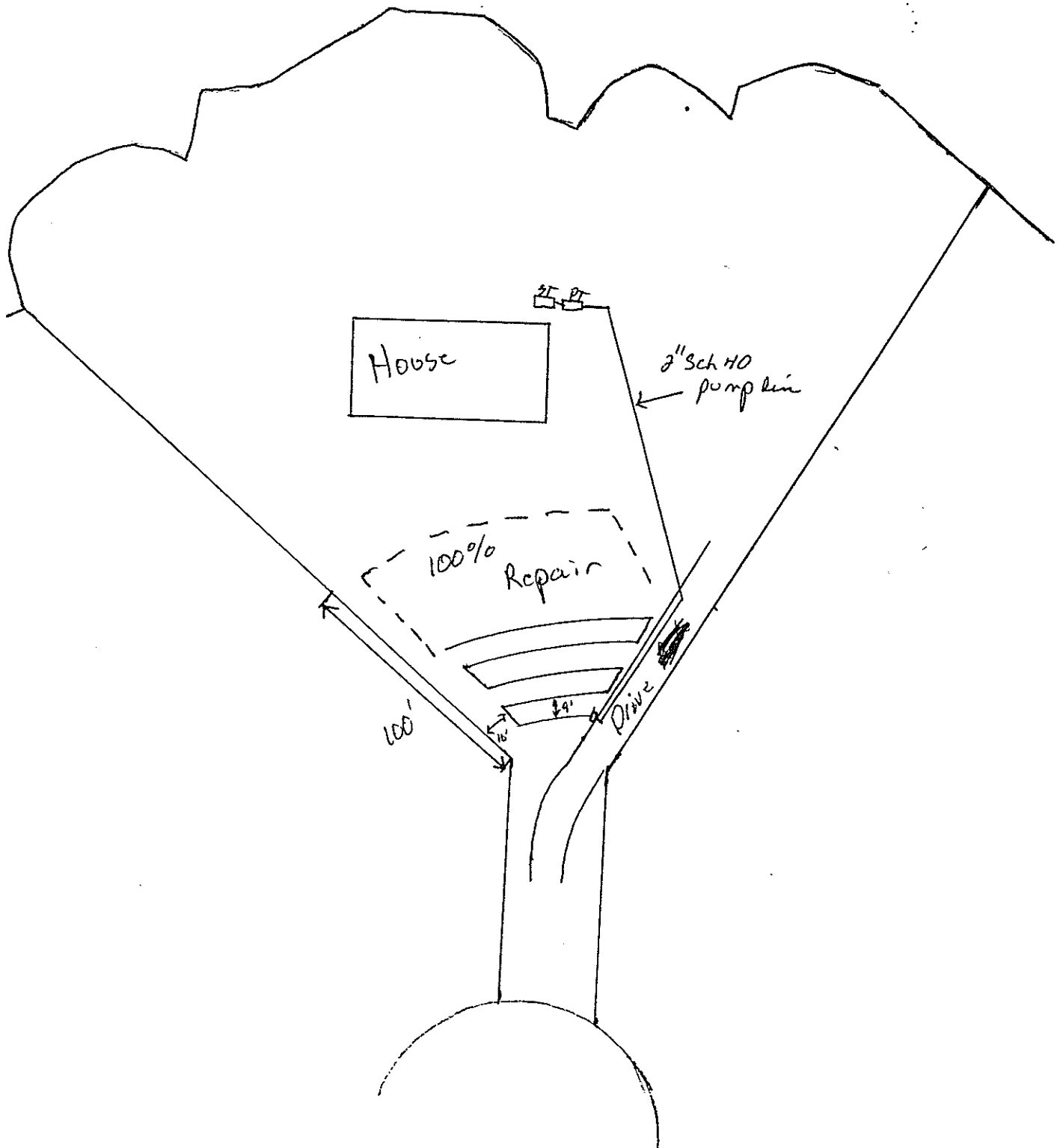
Applicant: Randy Allen

Site Plan

Permit Number: 2

98110

Scale - 1" =



Montgomery County Health Department

Environmental Health Section

Applicant: Randy Allen Permit Number: 98109
Owner: KEJ Marketing PIN #:
Proposed Use: House Water Supply: private
Division or SR#: Heron Bay Lot: 11 Section #: 10 Map #:
Address: Whisper Lake Drive, left side of cul-de-sac

Improvement Permit

Flow: System Design Flow: 360 GPD Type of Wastewater: domestic
Rooms: 3 Occupants: Basement: No Basement Fixtures: No
Employees: NA # of Seats: NA Type of System: Pump Conventional
LAR for Initial System: GPD/Sq. Ft. Septic Tank: Gallon Pump Tank: Gallon
Trench Length: linear ft Trench Depth: Trench Width: Total Stone Depth:
Air System: LTAR for Repair System: GPD/Sq. Ft.

Improvement Permit Conditions

This permit is a site approval for the future installation of an on-site wastewater system and is subject to revocation if the site plans or intended use changes from those shown above or on the application. This Improvement Permit must be accompanied by a construction authorization prior to obtaining any building permits and before the wastewater system is installed. This improvement permit is valid for a period of five years unless otherwise noted.

Improvement Permit Issued By: David Weyll RS Date: 3/6/98

Authorization For Wastewater System Construction

Authorization For Wastewater System Construction is valid for 5 years (60 months) from the date of issuance. (1) Wastewater system construction and installation must meet all conditions and specifications as set forth in the above Improvement Permit and attached site plan with system details. Construction and installation must also meet all requirements set forth in the Rules governing Sanitary Sewage Collection, Treatment, And Disposal Systems and any other applicable rules and laws. (2) The wastewater system shall not be covered or placed into use until inspected by the Montgomery County Health Department and an inspection Permit issued. (3) Any alteration in site or soil conditions (including location of structures and appurtenances) or changes in use, wastewater flow, or wastewater characteristics as specified in the associated Improvement Permit and construction, may subject this Authorization and associated permit(s) to revocation.

Construction Authorization Conditions

Install pump per attached diagram plan

Number of Attachment: 2
Construction Authorization By: David Weyll RS Date: 3/6/98

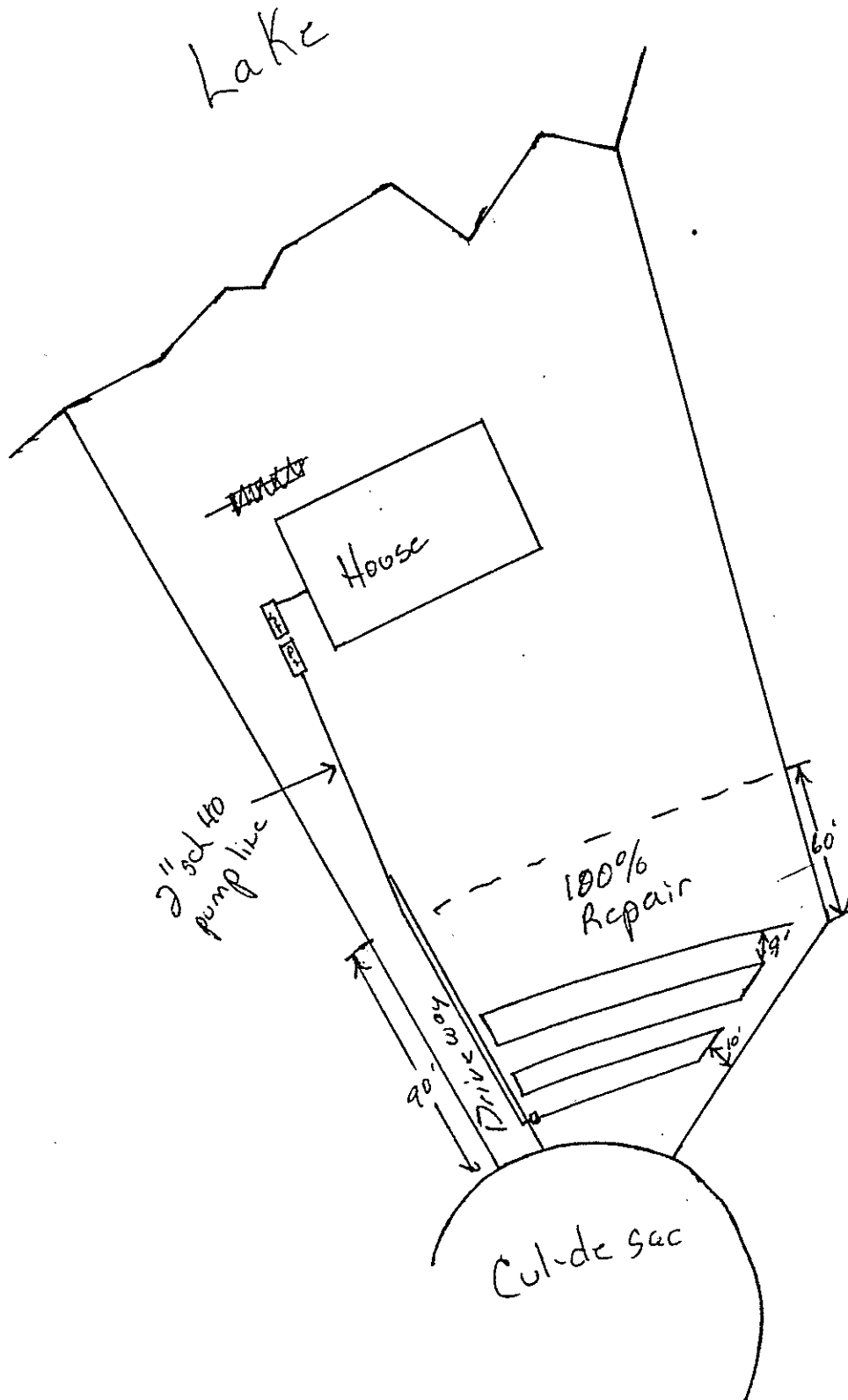
Montgomery County Health Department
Environmental Health Section

Applicant: Randy Allen

Site Plan

Permit Number: 98109

Scale - 1" = 60'



Montgomery County Health Department

Environmental Health Section

Applicant: Randy Allen Permit Number: 98108
Owner: KEJ Marketing PIN #:
Proposed Use: House Water Supply: private
Subdivision or SR#: Heron Bay Lot: 10 Section #: 10 Map #:
Directions: Whisper Lake Drive, left side of cul-de-sac

Improvement Permit

New System Design Flow: 360 GPD Type of Wastewater: domestic
Bedrooms: 3 Occupants: Basement No Basement Fixtures: No
Employees: NA # of Seats NA Type of System: Pump Conventional
LTAR for Initial System: 0.30 GPD/Sq. Ft. Septic Tank 900 Gallon Pump Tank 900 Gallon
Trench Length: 400 linear ft Trench Depth: 24 in. Trench Width: 36 in. Total Stone Depth: 12 in.
Repair System: Pump Conventional LTAR for Repair System: 0.30 GPD/Sq. Ft.

Improvement Permit Conditions

This permit is a site approval for the future installation of an on-site wastewater system and is subject to revocation if the site plans or intended use changes from those shown above or on the application. This Improvement Permit must be accompanied by a construction authorization prior to obtaining any building permits and before the wastewater system is installed. This improvement is valid for a period of five years unless otherwise noted.

Improvement Permit Issued By: David Weyell R.S. Date: 3/6/98

Authorization For Wastewater System Construction

This Authorization For Wastewater System Construction is valid for 5 years (60 months) from the date of issuance. (1) Wastewater system construction and installation must meet all conditions and specifications as set forth in the above Improvement Permit and attached site plan with system details. Construction and installation must also meet all requirements set forth in the Rules governing Sanitary Sewage Collection, Treatment, And Disposal Systems and any other applicable rules and laws. (2) The wastewater system shall not be covered or placed into use until inspected by the Montgomery County Health Department and an operation permit issued. (3) Any alteration in site or soil conditions (including location of structures and appurtenances) or modifications in use, wastewater flow, or wastewater characteristics as specified in the associated Improvement Permit and application, may subject this Authorization and associated permit(s) to revocation.

Construction Authorization Conditions

Do not install an innovative system in place of conventional, install per attached site plan and diagram, 100' separation from any well

Number of Attachment 2
Construction Authorization By: David Weyell R.S. Date: 3/6/98

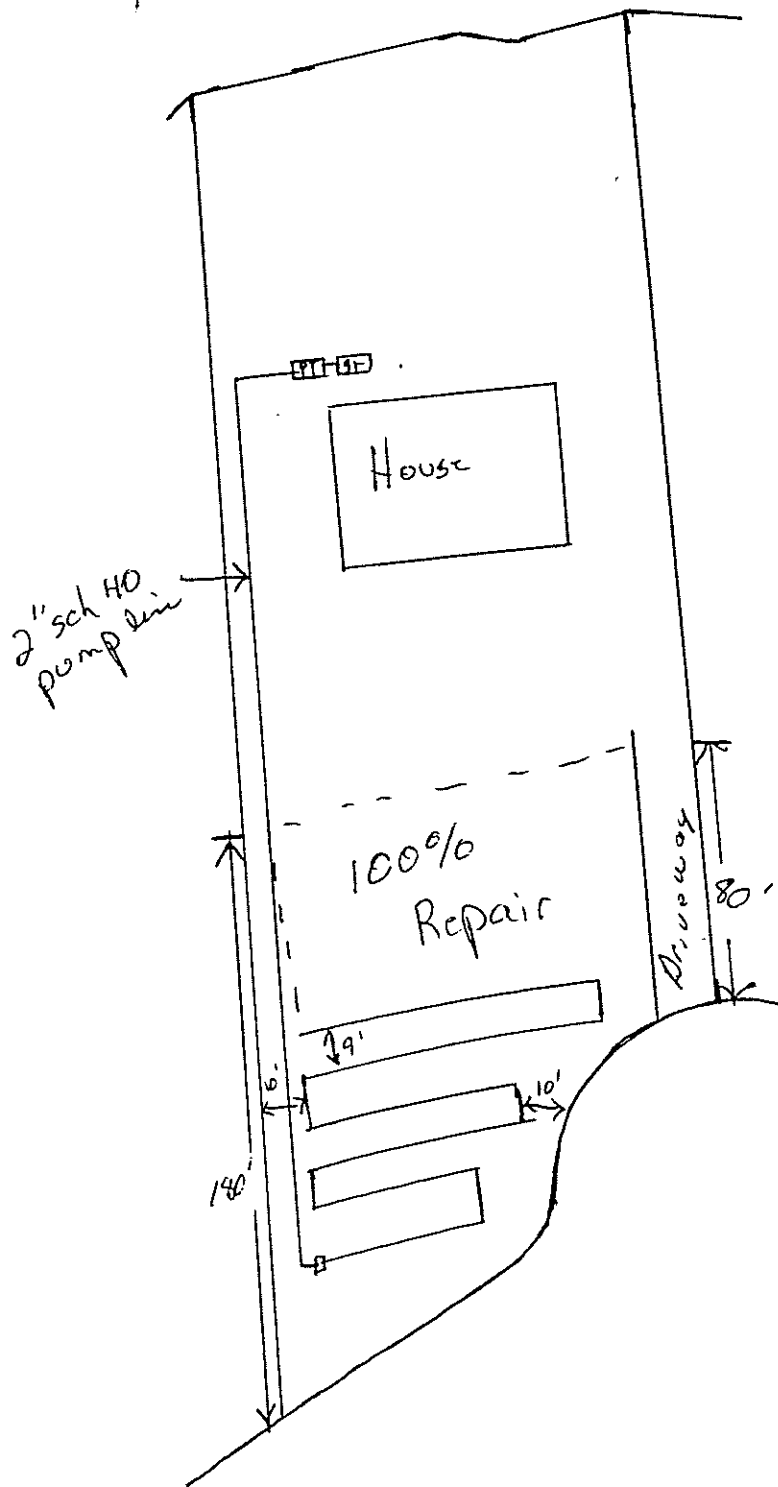
Montgomery County Health Department
Environmental Health Section

Site Plan

Permit Number: 98108

Applicant: Randy Allen

Scale - 1" = 60'



1

Montgomery County Health Department

Environmental Health Section

Applicant: Randy Allen
Owner: KEJ Marketing
Proposed Use: House
Subdivision or SR#: Heron Bay
Locations: Whisper lake Drive
Permit Number: 98107
PIN #:
Water Supply: private
Lot: 9 Section #: 10 Map #:

Improvement Permit

Flow: _____ System Design Flow: 360 GPD Type of Wastewater: domestic
Bedrooms: 3 Occupants: _____ Basement: No Basement Fixtures: No
Employees: NA # of Seats: NA Type of System: Pump Conventional
LTAR for Initial System: 0.30 GPD/Sq. Ft. Septic Tank 900 Gallon Pump Tank 900 Gallon
Trench Length: 400 linear ft Trench Depth: 24 in. Trench Width: 36 in Total Stone Depth: 12 in
Repair System: Pump Conventional LTAR for Repair System: 0.30 GPD/Sq. Ft.

Improvement Permit Conditions

This permit is a site approval for the future installation of an on-site wastewater system and is subject to revocation if the site plans or intended use changes from those shown above or on the application. This Improvement Permit must be accompanied by a construction authorization prior to obtaining any building permits and before the wastewater system is installed. This improvement permit is valid for a period of five years unless otherwise noted.

Improvement Permit Issued By: David Wyllie R.S. Date: 3/6/98

Authorization For Wastewater System Construction

This Authorization For Wastewater System Construction is valid for 5 years (60 months) from the date of issuance. (1) Wastewater system construction and installation must meet all conditions and specifications as set forth in the above Improvement Permit and attached site plan with system details. Construction and installation must also meet all requirements set forth in the Rules Governing Sanitary Sewage Collection, Treatment, And Disposal Systems and any other applicable rules and laws. (2) The wastewater system shall not be covered or placed into use until inspected by the Montgomery County Health Department and an authorization permit issued. (3) Any alteration in site or soil conditions (including location of structures and appurtenances) or modifications in use, wastewater flow, or wastewater characteristics as specified in the associated Improvement Permit and location, may subject this Authorization and associated permit(s) to revocation.

Construction Authorization Conditions

1. Install an innovative system in place of conventional, install per attached site plan and diagram, 100' separation from any well

Number of Attachment: 2
Construction Authorization By: David Wyllie R.S. Date: 3/6/98

Montgomery County Health Department

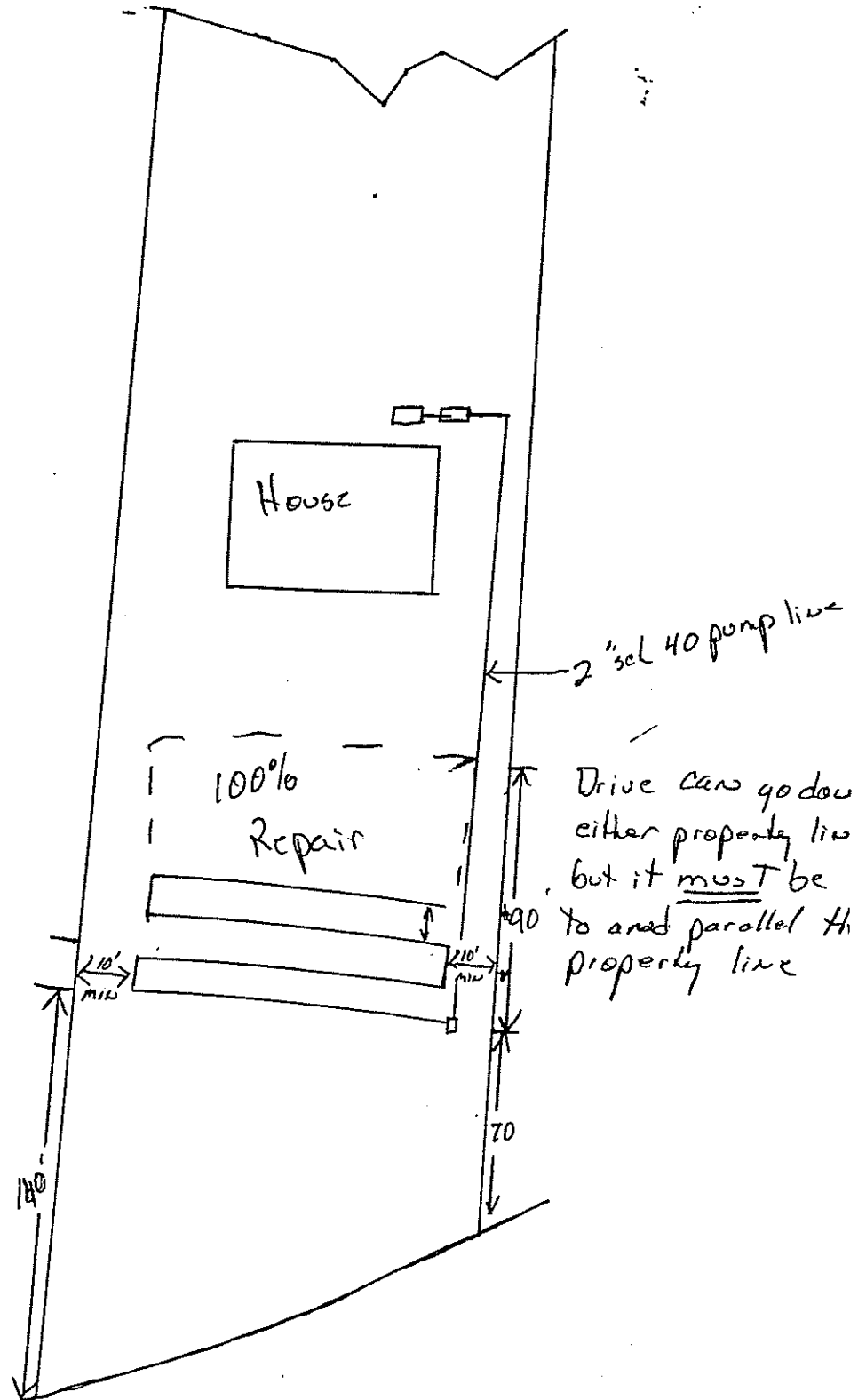
Environmental Health Section

Applicant: Randy Allen

Site Plan

Permit Number: 98107

Scale - 1" = 60'



Montgomery County Health Department

Environmental Health Section

Applicant: Randy Allen Permit Number: 98106
Firm: KEJ Marketing PIN #: _____
Proposed Use: House Water Supply: private
Division or SR#: Heron Bay Lot: 8 Section #: 10 Map #: _____
Address: Whisper Lake Drive

Improvement Permit

System Design Flow: 360 GPD Type of Wastewater: domestic
Rooms: 3 Occupants: _____ Basement: No Basement Fixtures: No
Employees: NA # of Seats: NA Type of System: Innovative
Flow for Initial System: 0.30 GPD/Sq. Ft. Septic Tank: 900 Gallon Pump Tank: 900 Gallon
Inch Length: 300 linear ft Depth: 18 in Width: 36 in Total Stone Depth: Na
Inlet System: PPBPS LTAR for Repair System: 0.30 GPD/Sq. Ft.

Improvement Permit Conditions

install system per manufacturers specification, system must be polystyrene aggregate or chamber system

This permit is a site approval for the future installation of an on-site wastewater system and is subject to revocation if the site plans or intended use changes from those shown above or on the application. This Improvement Permit must be accompanied by a construction authorization prior to obtaining any building permits and before the wastewater system is installed. This improvement permit is valid for a period of five years unless otherwise noted.

Improvement Permit Issued By: David Weyll RS Date: 3/24/98

Authorization For Wastewater System Construction

Authorization For Wastewater System Construction is valid for 5 years (60 months) from the date of issuance. (1) Wastewater system construction and installation must meet all conditions and specifications as set forth in the above Improvement Permit and attached site plan with system details. Construction and installation must also meet all requirements set forth in the Rules and Regulations for Sanitary Sewage Collection, Treatment, And Disposal Systems and any other applicable rules and laws. (2) The wastewater system shall not be covered or placed into use until inspected by the Montgomery County Health Department and an inspection permit issued. (3) Any alteration in site or soil conditions (including location of structures and appurtenances) or changes in use, wastewater flow, or wastewater characteristics as specified in the associated Improvement Permit and inspection, may subject this Authorization and associated permit(s) to revocation.

Construction Authorization Conditions

system shallow and follow contour, keep any part of system 100' from
alls

Number of Attachment: 2
Construction Authorization By: David Weyll RS Date: 3/24/98

Montgomery County Health Department

Environmental Health Section

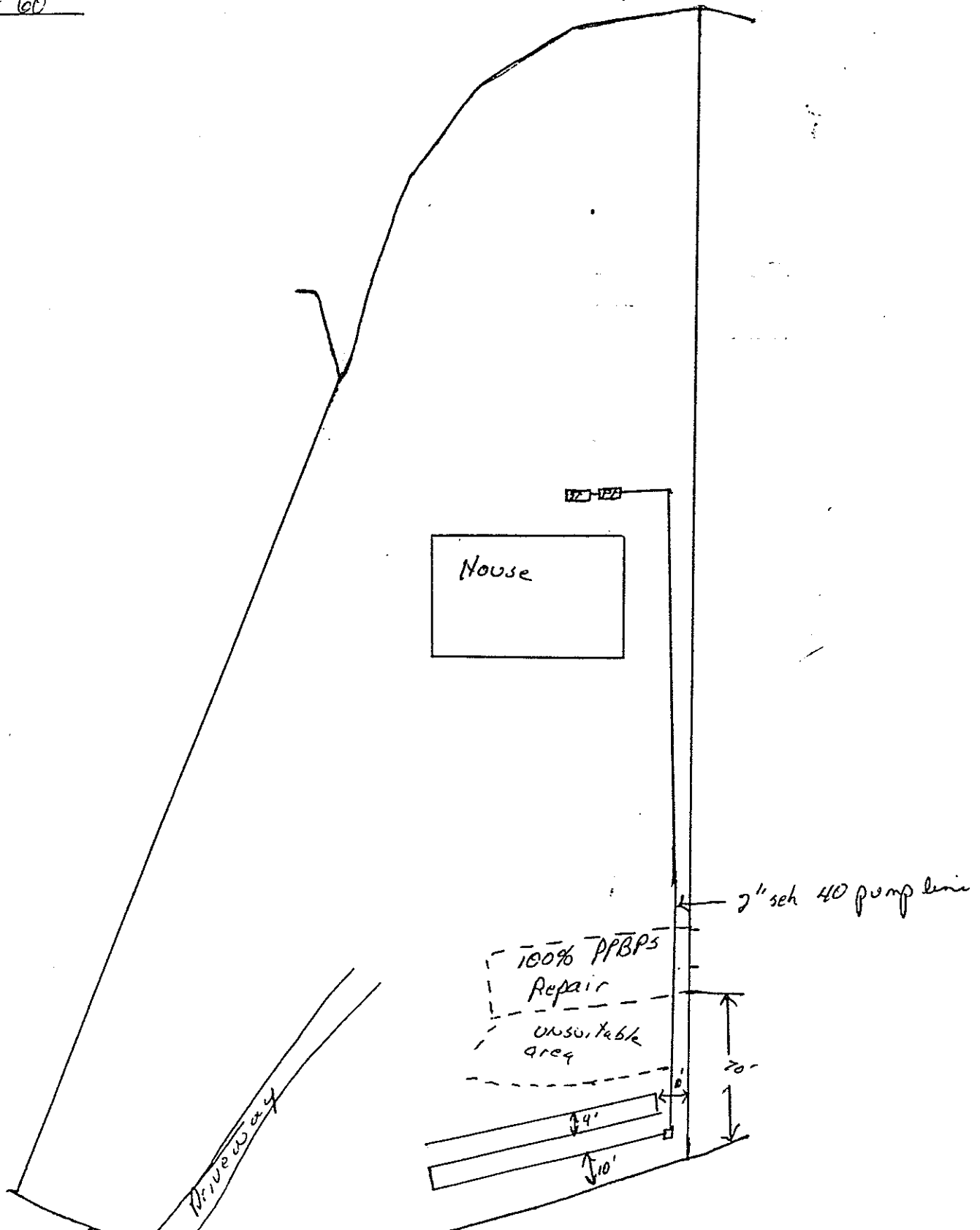
licant: Randy Allen

Site Plan

Permit Number: 98106

98106

scale - 1" = 60'



Montgomery County Health Department

Environmental Health Section

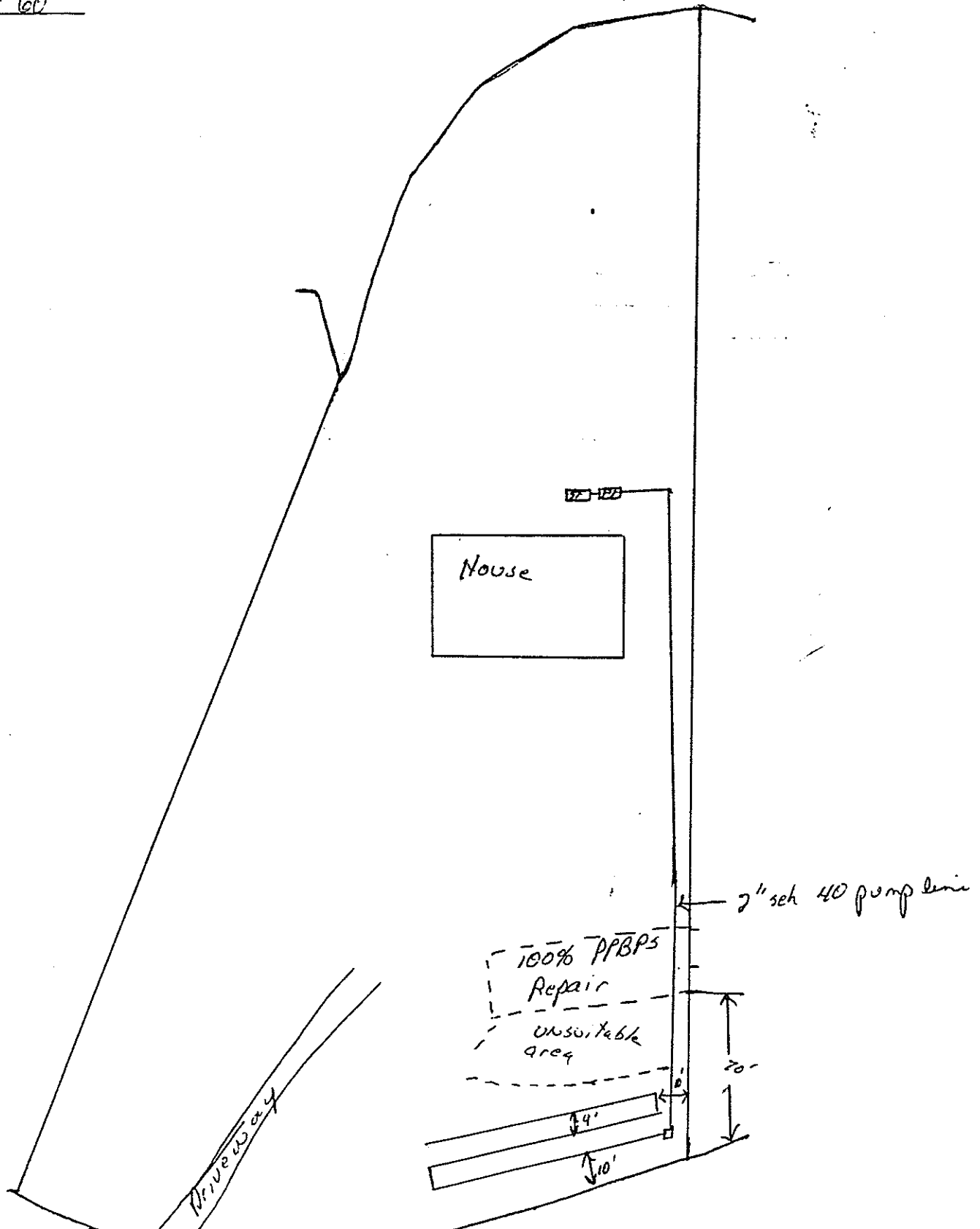
licant: Randy Allen

Site Plan

Permit Number: 98106

98106

Scale - 1" = 60'



Montgomery County Health Department

Environmental Health Section

Applicant: Randy Allen Permit Number: 98105
Firm: KEJ Marketing PIN #: _____
Proposed Use: House Water Supply: private
Division or SR#: Heron Bay Lot: 7 Section #: 10 Map #: _____
Address: Whisper Lake Drive

Improvement Permit

Design Flow: 360 GPD Type of Wastewater: domestic
Rooms: 3 Occupants: _____ Basement: No Basement Fixtures: No
Employees: NA # of Seats: NA Type of System: Pump Conventional
LTAR for Initial System: 0.30 GPD/Sq. Ft. Septic Tank: 900 Gallon Pump Tank: 900 Gallon
Trench Length: 400 linear ft Trench Depth: 24 in. Trench Width: 36 in. Total Stone Depth: 12 in.
Type of System: Pump Conventional LTAR for Repair System: 0.30 GPD/Sq. Ft.

Improvement Permit Conditions

This permit is a site approval for the future installation of an on-site wastewater system and is subject to revocation if the site plans or intended use changes from those shown above or on the application. This Improvement Permit must be accompanied by a construction authorization prior to obtaining any building permits and before the wastewater system is installed. This improvement permit is valid for a period of five years unless otherwise noted.

Improvement Permit Issued By: David Weppell R.S. Date: 3/6/98

Authorization For Wastewater System Construction

Authorization For Wastewater System Construction is valid for 5 years (60 months) from the date of issuance. (1) Wastewater system construction and installation must meet all conditions and specifications as set forth in the above Improvement Permit and attached site plan with system details. Construction and installation must also meet all requirements set forth in the Rules Governing Sanitary Sewage Collection, Treatment, And Disposal Systems and any other applicable rules and laws. (2) The wastewater system shall not be covered or placed into use until inspected by the Montgomery County Health Department and an authorization permit issued. (3) Any alteration in site or soil conditions (including location of structures and appurtenances) or specifications in use, wastewater flow, or wastewater characteristics as specified in the associated Improvement Permit and construction authorization, may subject this Authorization and associated permit(s) to revocation.

Construction Authorization Conditions

Install an innovative system in place of conventional, install per attached site plan and diagram, 100' separation from wells

Number of Attachment: 2
Construction Authorization By: David Weppell R.S. Date: 3/6/98

Fig:

Montgomery County Health Department Environmental Health Section

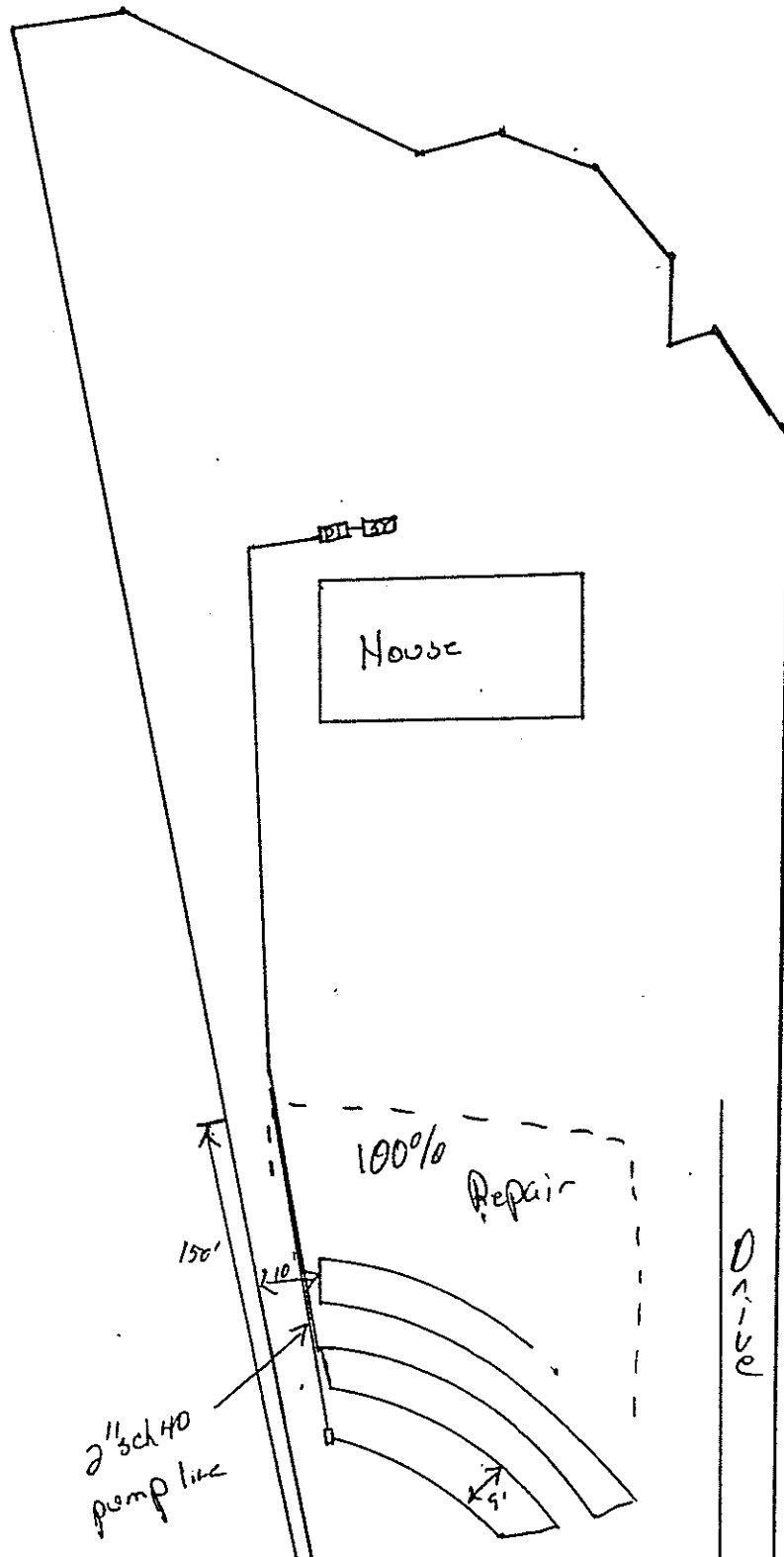
Applicant: Randy Allen

Site Plan

Permit Number: 98105

Scale - 1" = 60

Lake



Montgomery County Health Department

Environmental Health Section

Applicant: Randy Allen Permit Number: 98104
Firm: KEJ Marketing PIN #: _____
Proposed Use: House Water Supply: private
Division or SR#: Heron Bay Lot: 6 Section #: 10 Map #: _____
Address: Whisper Lake Drive

Improvement Permit

Flow: _____ System Design Flow: 360 GPD Type of Wastewater: domestic
Bedrooms: 3 Occupants: _____ Basement: No Basement Fixtures: No
Employees: NA # of Seats: NA Type of System: Pump Conventional
LTAR for Initial System: 0.30 GPD/Sq. Ft. Septic Tank: 900 Gallon Pump Tank: 900 Gallon
Trench Length: 400 linear ft Trench Depth: 24 in. Trench Width: 36 in. Total Stone Depth: 12 in.
Repair System: Pump Conventional LTAR for Repair System: 0.30 GPD/Sq. Ft.

Improvement Permit Conditions

This permit is a site approval for the future installation of an on-site wastewater system and is subject to revocation if the site plans or intended use changes from those shown above or on the application. This Improvement Permit must be accompanied by a construction authorization prior to obtaining any building permits and before the wastewater system is installed. This improvement permit is valid for a period of five years unless otherwise noted.

Improvement Permit Issued By: David Weyll R.S. Date: 3/6/98

Authorization For Wastewater System Construction

This Authorization For Wastewater System Construction is valid for 5 years (60 months) from the date of issuance. (1) Wastewater system construction and installation must meet all conditions and specifications as set forth in the above Improvement Permit and attached site plan with system details. Construction and installation must also meet all requirements set forth in the Rules Governing Sanitary Sewage Collection, Treatment, And Disposal Systems and any other applicable rules and laws. (2) The wastewater system shall not be covered or placed into use until inspected by the Montgomery County Health Department and an Authorization Permit issued. (3) Any alteration in site or soil conditions (including location of structures and appurtenances) or modifications in use, wastewater flow, or wastewater characteristics as specified in the associated Improvement Permit and location, may subject this Authorization and associated permit(s) to revocation.

Construction Authorization Conditions

1. Do not install an innovative system in place of conventional, install per attached site plan and diagram, 100' separation from wells

Number of Attachment: 3
Construction Authorization By: David Weyll R.S. Date: 3/6/98

Montgomery County Health Department

Environmental Health Section

Applicant: Randy Allen Permit Number: 98103
Owner: KEJ Marketing PIN #: _____
Proposed Use: House Water Supply: private
Division or SR#: Heron Bay Lot: 5 Section #: 10 Map #: _____
Locations: Whisper Lake Drive

Improvement Permit

Flow: _____ System Design Flow: 360 GPD Type of Wastewater: domestic
Bedrooms: 3 Occupants: _____ Basement: No Basement Fixtures: No
Employees: NA # of Seats: NA Type of System: Pump Conventional
LTAR for Initial System: 0.30 GPD/Sq. Ft. Septic Tank: 900 Gallon Pump Tank: 900 Gallon
Trench Length: 400 linear ft Trench Depth: 24 in. Trench Width: 36 in. Total Stone Depth: 12 in.
Repair System: Pump Conventional LTAR for Repair System: 0.30 GPD/Sq. Ft.

Improvement Permit Conditions

This permit is a site approval for the future installation of an on-site wastewater system and is subject to revocation if the site plans or intended use changes from those shown above or on the application. This Improvement Permit must be accompanied by a construction authorization prior to obtaining any building permits and before the wastewater system is installed. This improvement is valid for a period of five years unless otherwise noted.

Improvement Permit Issued By: David Wyllie R.S. Date: 3/6/98

Authorization For Wastewater System Construction

This Authorization For Wastewater System Construction is valid for 5 years (60 months) from the date of issuance. (1) Wastewater system construction and installation must meet all conditions and specifications as set forth in the above Improvement Permit and attached site plan with system details. Construction and installation must also meet all requirements set forth in the Rules governing Sanitary Sewage Collection, Treatment, And Disposal Systems and any other applicable rules and laws. (2) The wastewater system shall not be covered or placed into use until inspected by the Montgomery County Health Department and an operation permit issued. (3) Any alteration in site or soil conditions (including location of structures and appurtenances) or modifications in use, wastewater flow, or wastewater characteristics as specified in the associated Improvement Permit and application, may subject this Authorization and associated permit(s) to revocation.

Construction Authorization Conditions

Will install an innovative system in place of conventional, install per attached site plan and diagram, 100' separation from well

Number of Attachment 2
Construction Authorization By: David Wyllie R.S.

Date: 3/6/98

Montgomery County Health Department Environmental Health Section

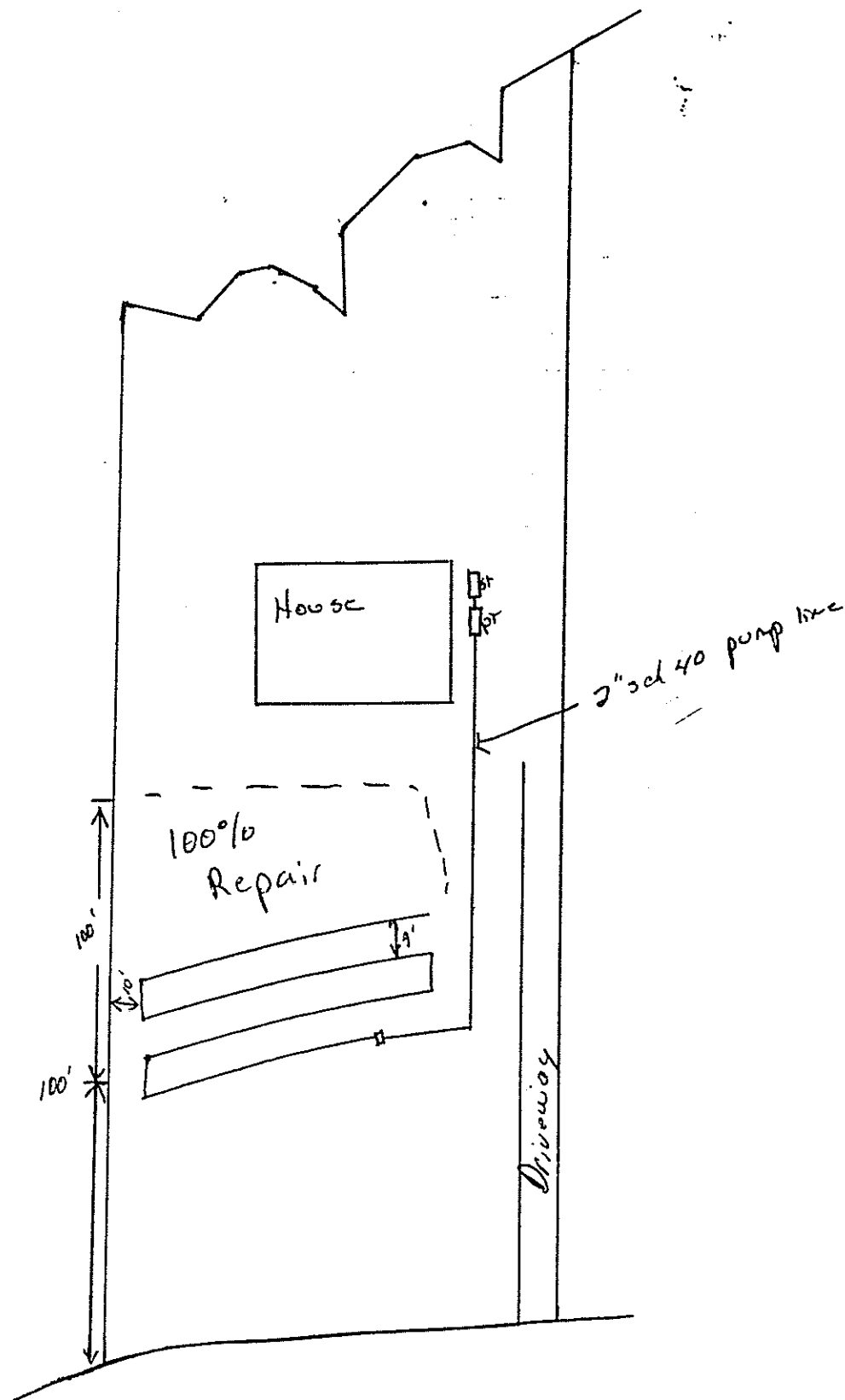
Applicant: Randy Allen

Site Plan

Permit Number: 9810

Scale - 1" =

60'



Montgomery County Health Department

Environmental Health Section

Applicant: Randy Allen Permit Number: 98102
Firm: KEJ Marketing PIN #: _____
Proposed Use: House Water Supply: private
Division or SR#: Heron Bay Lot: 4 Section #: 10 Map #: _____
Address: Whisper lake Drive

Improvement Permit

Wastewater System Design Flow: 360 GPD Type of Wastewater domestic
Rooms: 3 Occupants: _____ Basement No Basement Fixtures: No
Employees: NA # of Seats NA Type of System: Innovative
Rate for Initial System: 0.30 GPD/Sq. Ft. Septic Tank 900 Gallon Pump Tank 900 Gallon
Inch Length: 100 linear ft Trench Depth: 24 in Trench Width: 36 in Total Stone Depth: NA
Infiltration System: Innovative LTAR for Repair System: 0.30 GPD/Sq. Ft.

Improvement Permit Conditions

Install polystyrene aggregate or chamber, install per manufacturers
specifications

This permit is a site approval for the future installation of an on-site wastewater system and is subject to revocation if the site plans or intended use changes from those shown above or on the application. This Improvement Permit must be accompanied by a construction authorization prior to obtaining any building permits and before the wastewater system is installed. This improvement permit is valid for a period of five years unless otherwise noted.

Improvement Permit Issued By: David Wyll R.S. Date: 3/6/98

Authorization For Wastewater System Construction

Authorization For Wastewater System Construction is valid for 5 years (60 months) from the date of issuance. (1) Wastewater system construction and installation must meet all conditions and specifications as set forth in the above Improvement Permit and attached site plan with system details. Construction and installation must also meet all requirements set forth in the Rules and Regulations for Sanitary Sewage Collection, Treatment, and Disposal Systems and any other applicable rules and laws. (2) The wastewater system shall not be covered or placed into use until inspected by the Montgomery County Health Department and an authorization permit issued. (3) Any alteration in site or soil conditions (including location of structures and appurtenances) or modifications in use, wastewater flow, or wastewater characteristics as specified in the associated Improvement Permit and conditions, may subject this Authorization and associated permit(s) to revocation.

Construction Authorization Conditions

Install per attached site plan and diagram

Number of Attachment 2
Construction Authorization By: David Wyll R.S. Date: 3/6/98

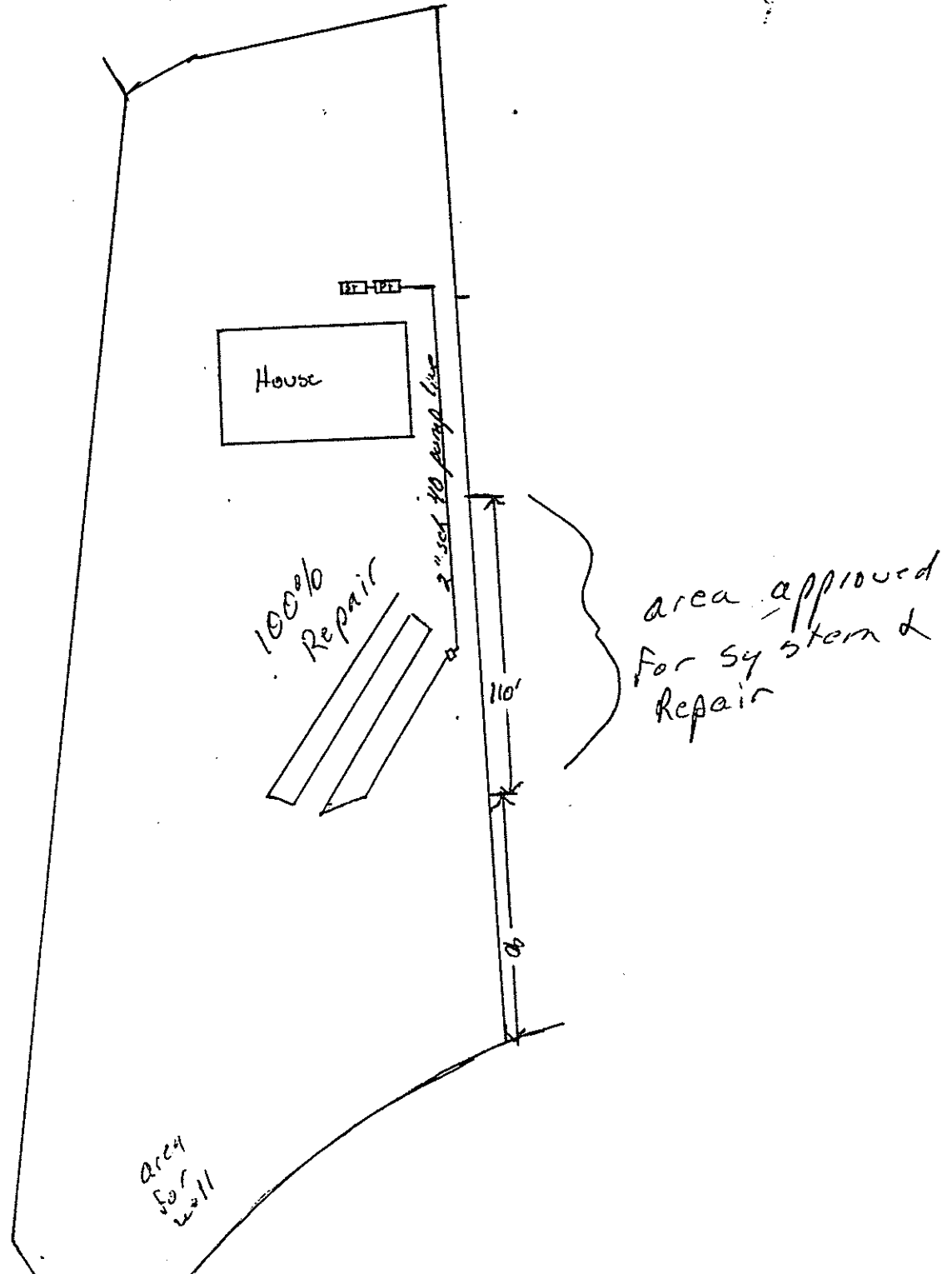
Montgomery County Health Department Environmental Health Section

by: Randy Allen

late Site Plan

Permit Number: 98102

"= 160'



Montgomery County Health Department

Environmental Health Section

Applicant: Randy Allen Permit Number: 98101
Owner: KEI Marketing PIN #: _____
Proposed Use: House Water Supply: private
Division or SR#: Heron Bay Lot: 3 Section #: 10 Map #: _____
Address: Whisper Lake Drive

Improvement Permit

Flow: _____ System Design Flow: 360 GPD Type of Wastewater: domestic
Bedrooms: 3 Occupants: _____ Basement: No Basement Fixtures: No
Employees: NA # of Seats: NA Type of System: Pump Conventional
LTAR for Initial System: 400 GPD/Sq. Ft. Septic Tank: 900 Gallon Pump Tank: 900 Gallon
Trench Length: 400 linear ft Trench Depth: 18 in. Trench Width: 36 in. Total Stone Depth: 12 in.
Repair System: Pump Conventional LTAR for Repair System: 0.30 GPD/Sq. Ft.

Improvement Permit Conditions

This permit is a site approval for the future installation of an on-site wastewater system and is subject to revocation if the site plans or intended use changes from those shown above or on the application. This Improvement Permit must be accompanied by a construction authorization prior to obtaining any building permits and before the wastewater system is installed. This improvement permit is valid for a period of five years unless otherwise noted.

Improvement Permit Issued By: David W. Goff R.S. Date: 3/6/98

Authorization For Wastewater System Construction

This Authorization For Wastewater System Construction is valid for 5 years (60 months) from the date of issuance. (1) Wastewater system construction and installation must meet all conditions and specifications as set forth in the above Improvement Permit and attached site plan with system details. Construction and installation must also meet all requirements set forth in the Rules governing Sanitary Sewage Collection, Treatment, And Disposal Systems and any other applicable rules and laws. (2) The wastewater system shall not be covered or placed into use until inspected by the Montgomery County Health Department and an operation permit issued. (3) Any alteration in site or soil conditions (including location of structures and appurtenances) or modifications in use, wastewater flow, or wastewater characteristics as specified in the associated Improvement Permit and application, may subject this Authorization and associated permit(s) to revocation.

Construction Authorization Conditions

Install per attached site plan and diagram, well must be 100' from any septic tank system, install pump per attached diagram

Number of Attachment: 2
Construction Authorization By: David W. Goff R.S. Date: 3/6/98

Montgomery County Health Department
Environmental Health Section

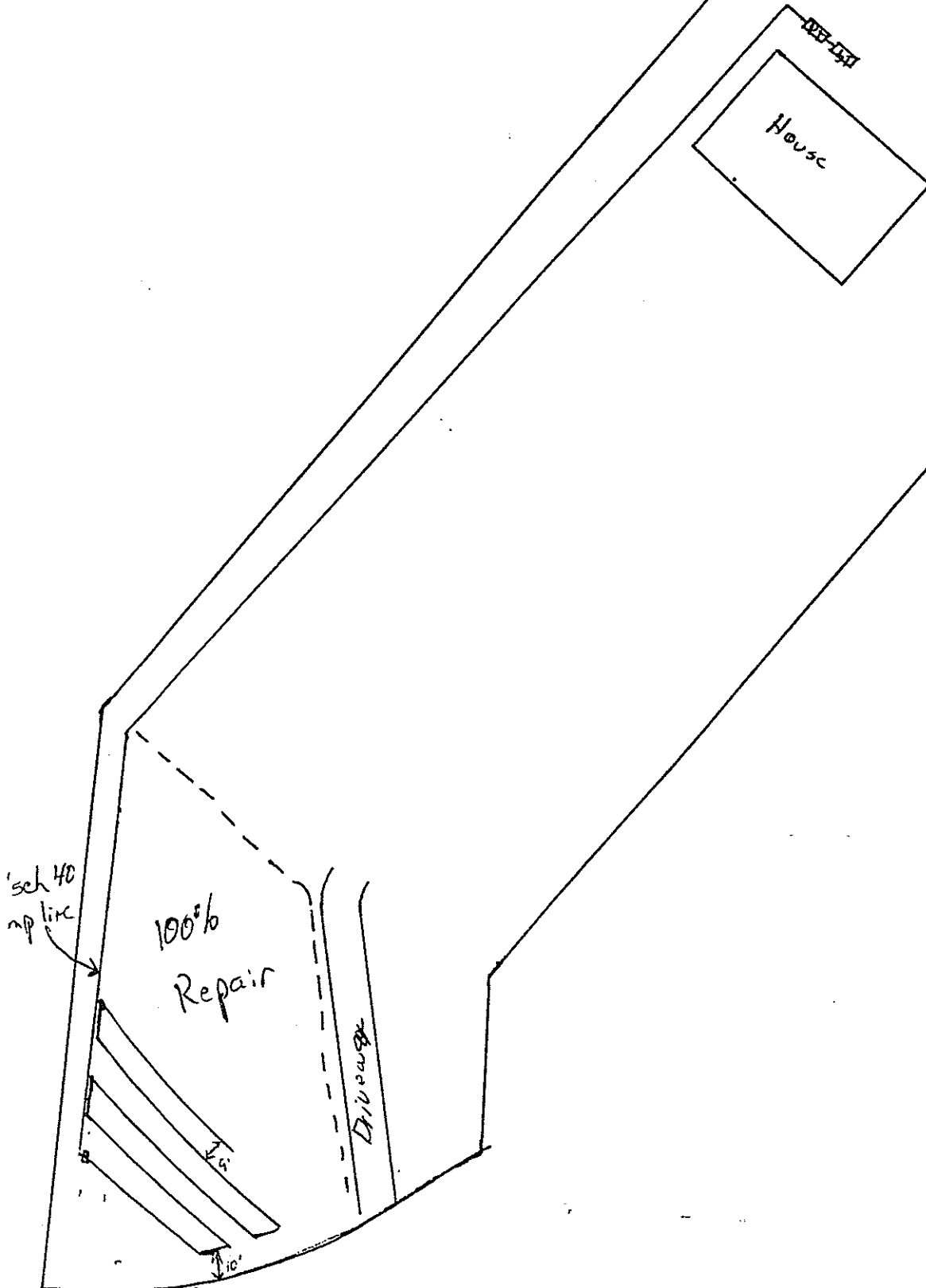
Lak

Applicant: Randy Allen

Site Plan

Permit Number: 98101

Scale - 1" = 60'



Montgomery County Health Department

Environmental Health Section

Applicant: Randy Allen Permit Number: 98100
Firm: KEJ Marketing PIN #:
Proposed Use: House Water Supply: private
Address or SR#: Heron Bay Lot: 2 Section #: 10 Map #:
Location: Whisper Lake Drive

Improvement Permit

Flow: System Design Flow: 360 GPD Type of Wastewater: domestic
Bedrooms: 3 Occupants: Basement: No Basement Fixtures: No
Employees: NA # of Seats: NA Type of System: Pump Conventional
LTAR for Initial System: 0.30 GPD/Sq. Ft. Septic Tank: 900 Gallon Pump Tank: 900 Gallon
Trench Length: 400 linear ft Trench Depth: 24 in. Trench Width: 36 in. Total Stone Depth: 12 in.
Repair System: Pump Conventional LTAR for Repair System: 0.30 GPD/Sq. Ft.

Improvement Permit Conditions

This permit is a site approval for the future installation of an on-site wastewater system and is subject to revocation if the site plans or intended use changes from those shown above or on the application. This Improvement Permit must be accompanied by a construction authorization prior to obtaining any building permits and before the wastewater system is installed. This improvement permit is valid for a period of five years unless otherwise noted.

Improvement Permit Issued By: David Weyell RS Date: 3/6/98

Authorization For Wastewater System Construction

This Authorization For Wastewater System Construction is valid for 5 years (60 months) from the date of issuance. (1) Wastewater system construction and installation must meet all conditions and specifications as set forth in the above Improvement Permit and attached site plan with system details. Construction and installation must also meet all requirements set forth in the Rules governing Sanitary Sewage Collection, Treatment, And Disposal Systems and any other applicable rules and laws. (2) The wastewater system shall not be covered or placed into use until inspected by the Montgomery County Health Department and an authorization permit issued. (3) Any alteration in site or soil conditions (including location of structures and appurtenances) or modifications in use, wastewater flow, or wastewater characteristics as specified in the associated Improvement Permit and location, may subject this Authorization and associated permit(s) to revocation.

Construction Authorization Conditions

Install system per attached site plan and diagrams, well must be 100' from any part of septic tank system, Install pump per attached diagram.

Number of Attachment: 2
Construction Authorization By: David Weyell RS Date: 3/6/98

Montgomery County Health Department

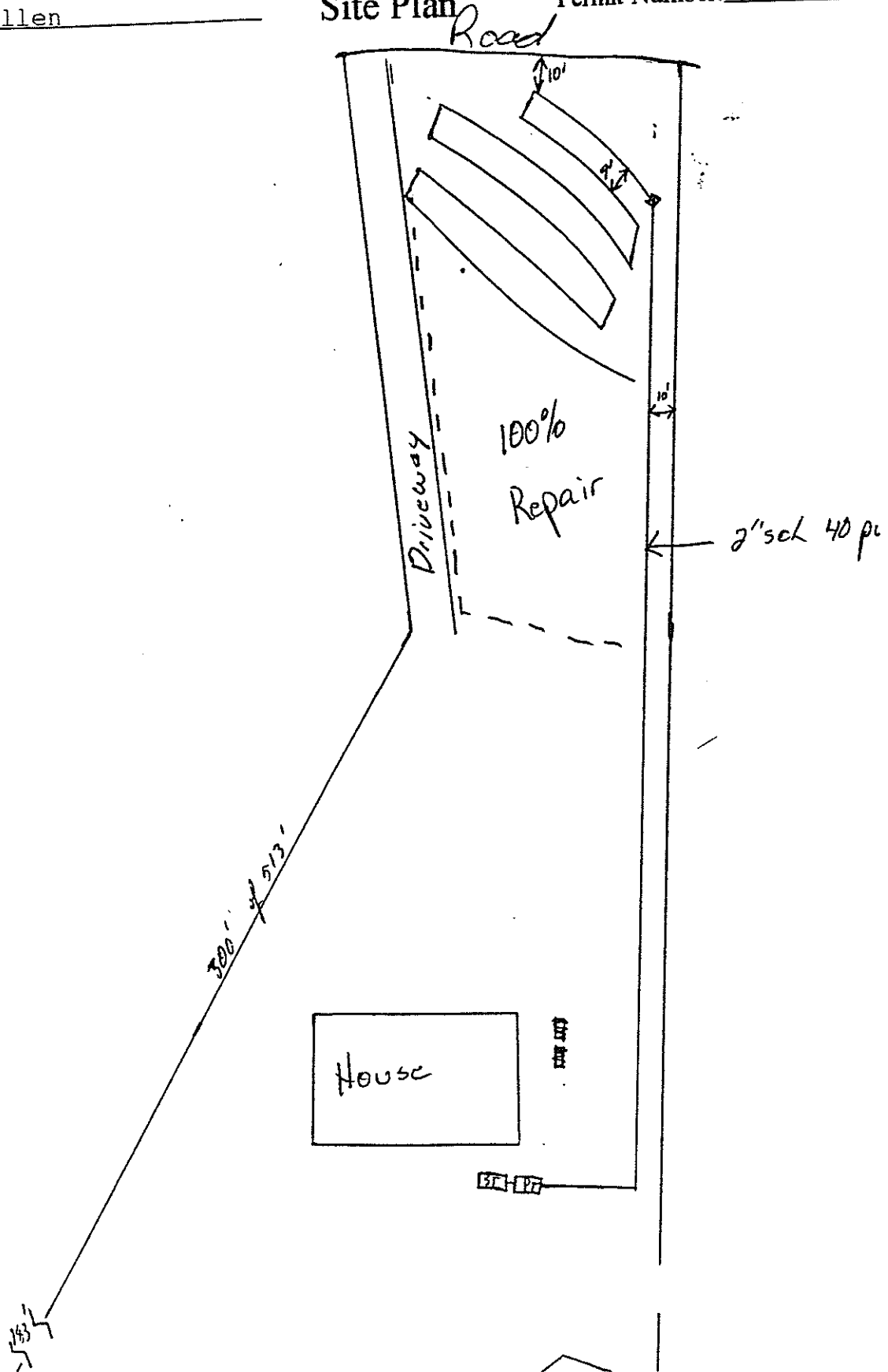
Environmental Health Section

Applicant: Randy Allen

Scale - 1" = 60'

Site Plan

Permit Number: 98100



Montgomery County Health Department

Environmental Health Section

Applicant: Randy Allen Permit Number: 98099
Owner: KEJ Marketing PIN #: _____
Proposed Use: House Water Supply: private
Subdivision or SR#: Heron Bay Lot: 1 Section #: 10 Map #: _____
Address: Wisper Lake Drive

Improvement Permit

New _____ System Design Flow: 360 GPD Type of Wastewater: domestic
Bedrooms: 3 Occupants: _____ Basement: No Basement Fixtures: No
Employees: NA # of Seats: NA Type of System: Innovative
LTAR for Initial System: 0.30 GPD/Sq. Ft. Septic Tank: 900 Gallon Pump Tank: 900 Gallon
Trench Length: 300 linear ft Depth: 24 in Width: 36 in Total Stone Depth: NA
Repair System: Innovative LTAR for Repair System: 0.30 GPD/Sq. Ft.

Improvement Permit Conditions

Install system per manufacturers specification

This permit is a site approval for the future installation of an on-site wastewater system and is subject to revocation if the site plans or intended use changes from those shown above or on the application. This Improvement Permit must be accompanied by a construction authorization prior to obtaining any building permits and before the wastewater system is installed. This improvement is valid for a period of five years unless otherwise noted.

Improvement Permit Issued By: David D. Wyllie R.S. Date: 3/24/98

Authorization For Wastewater System Construction

This Authorization For Wastewater System Construction is valid for 5 years (60 months) from the date of issuance. (1) Wastewater system construction and installation must meet all conditions and specifications as set forth in the above Improvement Permit and the attached site plan with system details. Construction and installation must also meet all requirements set forth in the Rules governing Sanitary Sewage Collection, Treatment, And Disposal Systems and any other applicable rules and laws. (2) The wastewater system shall not be covered or placed into use until inspected by the Montgomery County Health Department and an operation permit issued. (3) Any alteration in site or soil conditions (including location of structures and appurtenances) or modifications in use, wastewater flow, or wastewater characteristics as specified in the associated Improvement Permit and application, may subject this Authorization and associated permit(s) to revocation.

Construction Authorization Conditions

Keep system shallow and follow contour, install per attached site plan and diagrams, keep any part of system 100'

Number of Attachment 2
Construction Authorization By: David D. Wyllie R.S. Date: 3/24/98

Montgomery County Health Department

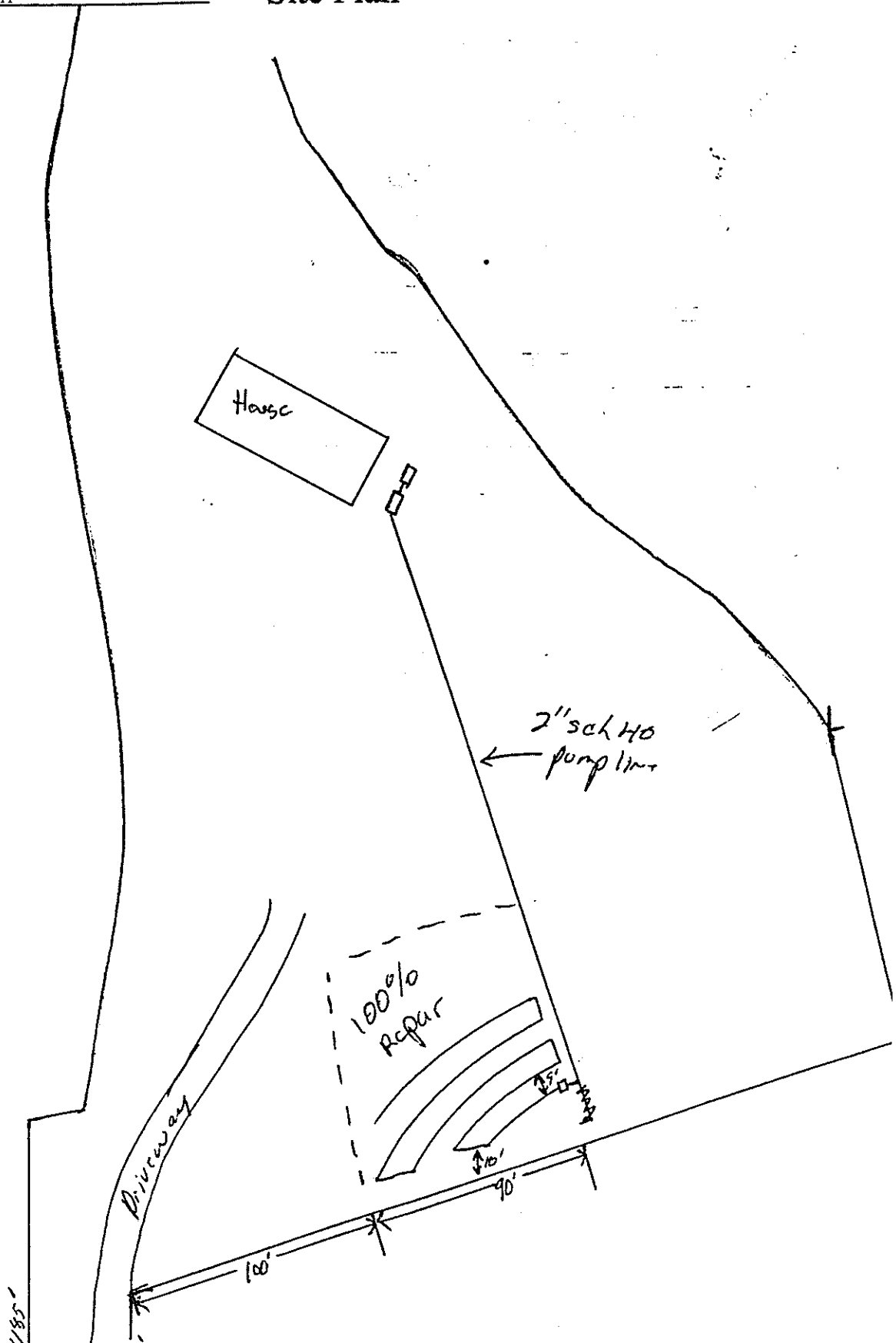
Environmental Health Section

Applicant: Randy Allen

Site Plan

Permit Number: 98099

Scale - 1" = 60'



APPENDIX D

STATE SEDIMENT AND EROSION CONTROL APPROVAL

NORTH CAROLINA DEPARTMENT OF
ENVIRONMENT AND NATURAL RESOURCES
FAYETTEVILLE REGIONAL OFFICE

April 21, 1998

Randy Allen, VP
KEJ Marketing Co., Inc.
PO Box 1979
Matthews, NC 28106

Re: Approval of Soil Erosion and
Sediment Control Plan
Heron Bay Subdivision-Ph. 10
Montgomery Co., North Carolina

Dear Mr. Allen:

The review of the above-referenced erosion control plan has been completed. The plan has been found to be acceptable subject to the following stipulations:

1. Increase the surface area of sediment trap 13 to provide 1800 cfs of sediment storage per acre.
2. A specific temporary liner, such as excelsior matting, should be shown on the plan in required channels.
3. Provide a vicinity map in reference to previous phases of subdivision.
4. All of the above requested items should be revised and sent to our office before construction begins. Failure to do so will mean the issuance of a Notice of Violation.
5. Enclosed is a Certificate of Plan Approval which must be displayed at the job site.
6. This project is subject to the National Pollutant Discharge Elimination System (NPDES) for point source stormwater discharges from construction activities. Enclosed is a copy of the necessary permit information. Please contact Mr. Ken Averitte, Division of Water Quality, at (910) 486-1541 for further assistance regarding this permit.

Mr. Allen

Page 2

7. In order to ensure the early coordination and implementation of the erosion control plan for this project, it is requested that a preconstruction conference be held. As a minimum, representatives of the owner, engineer, contractor, and this office should attend, subject to the availability of staff. Please notify Steve Cook of this office as to when this conference is scheduled.
8. The developer is responsible for obtaining any and all permits and approvals necessary for the developing of this project prior to the commencement of this land-disturbing activity. This could include the Division of Water Quality under storm water regulations, the US Army Corps of Engineers under Article 404 jurisdiction, local county or town agencies under their local ordinances, or others that may be required. This approval cannot supersede any other permit or approval; however, in the case of a Cease and Desist Order from the Corps of Engineers, that Order would only apply to wetland areas. All other lands must still be in compliance with the Sedimentation Pollution Control Act.
9. If any area on site falls under the jurisdiction of Section 404 of the Clean Water Act, the developer is responsible to the orders of the US Army Corps of Engineers. Any erosion control measures that fall within jurisdictional wetland area must be relocated to the transition point between the wetlands and the highlands to assure that the migration of sediment will not occur. If that relocation presents a problem or contradicts any requirements of the Corps of Engineers, it is the responsibility of the developer to inform the Land Quality Section's Regional Office so that an adequate contingency plan can be made to assure sufficient erosion control on-site. Failure to do so will be considered a violation of this approval.
10. Any borrow material brought onto this site must be from a legally permitted mine site or other approved source. A single use borrow or waste area site is only permissible if it is operated under control

Mr. Allen
Page 3

of the financially responsible person or firm that is developing this site. An approved erosion and sediment control plan is required for all single use borrow and waste sites.

11. Following the completion of the project, you should notify this office to schedule a final inspection. The purpose of this inspection is to ensure that all erosion control requirements have been met.

This approval is subject to the satisfactory performance of the erosion control measures under field conditions. Should it be determined that the requirements of the Sedimentation Pollution Control Act of 1973 (GS 113A, 51-66) are not being met, revisions to the plan and its implementation will be required.

This permit allows for a land disturbance, as called for on the application plan, not to exceed 8.5 acres and/or the limits of the submitted plans. Exceeding these limits will be a violation of this permit and would require a revised plan and additional application fee. Amendments to the plan should be submitted to this office under the same procedures as followed for the original plan. This plan approval shall expire three (3) years following the date of approval, if no land-disturbing activity has been undertaken, as is required by Title 15A NCAC 4B .0029.

Title 15, Section 4B .0017 (A) of the North Carolina Administrative Code requires that a copy of the approved plan be on file at the job site and that inspections of the project be made by this office to ensure compliance with the approved plan.

We look forward to working with you on this project.

Sincerely,

Caroline Medlin

Caroline Medlin
Assistant Regional Engineer
Land Quality Section

CM/kc

Enclosure

Mr. Allen
Page 4

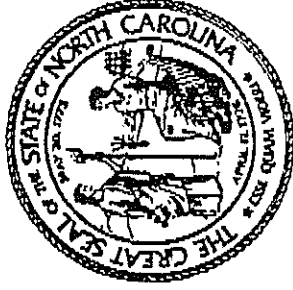
cc: Jeffery I. Smith, PE
Phil Henley
Ken Averitte

Project Name: Heron Bay Subdivision-Ph.10
Location:Montgomery County, North Carolina
Submitted By: J.N. Pease Associates
Date Received By LQ: April 2, 1998
River Basin: Yadkin

APPENDIX E

**CORPS OF ENGINEERS-APPROVED SURVEY
OF SECTION 404 JURISDICTIONAL AREAS**

CERTIFICATE OF PLAN APPROVAL



The posting of this certificate certifies that an erosion and sedimentation control plan has been approved for this project by the North Carolina Department of Environment, Health, and Natural Resources in accordance with North Carolina General Statute 113A - 57 (4) and 113A - 54 (d) (4) and North Carolina Administrative Code, Title 15A, Chapter 4B.0007 (c). This certificate must be posted at the primary entrance of the job site before construction begins and until establishment of permanent groundcover as required by North Carolina Administrative Code, Title 15A, Chapter 4B.0027(b).

HERON BAY SUBDIVISION - PHASE 10 - MONTGOMERY COUNTY, NC

Project Name and Location

APRIL 21, 1998

Date of Plan Approval

William E. Vason
Regional Engineer

Mr. Allen
Page 4

cc: Jeffery I. Smith, PE
Phil Henley
Ken Averitte

Project Name: Heron Bay Subdivision-Ph.10
Location:Montgomery County, North Carolina
Submitted By: J.N. Pease Associates
Date Received By LQ: April 2, 1998
River Basin: Yadkin