#### QUANTITY AND COST ESTIMATE

ITEM	QUANTITY	UNIT	UNIT PRICE	COST	BONDABLE
				<del></del>	
CLEARING AND GRUBBING	SEE PLANS FOR	OPPIDAN RETAIL	CENTER"; SUBM	TTED UNDER SEP	ERATE COVER
GRADING	SEE PLANS FOR	OPPIDAN RETAIL	CENTER"; SUBM	TTED UNDER SEP	RATE COVER
	1				
				·	
CURB INLET DI-3	12	EACH	2,000.00	24,000.00	
STORM DRAIN MANHOLE	7	EACH	1,200.00	8,400.00	
				·	sub 32,400.0
					· · · · · · · · · · · · · · · · · · ·
ATT CONCERT CTORY BRAIN	014	1111	24.00	21,936.00	
15" CONCRETE STORM DRAIN	914 131	LIN. FT.	27.00	3,537.00	<u> </u>
8* CONCRETE STORM DRAIN	101	LIN, FI.	27.00	- 3,337.00	sub 25,473.0
					340 20,470,0
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CURB CG-2	493	LIŅ. FT.	9.00	4,437.00	
CURB & GUTTER CG-6	1,457	LIN. FT.	12.00	17,484.00	
3* 21-B	6,623	S.Y.	7.00	46,361.00	
3" BM-25.0	3,926	S.Y.	6.00	23,556.00	
2" SM-9.5A	6,623	S.Y.	6.00	39,738.00	
					sub 131,576.0
2" WATER LINE	379	LIN. FT.	13.00	4,927.00	
5" WATER LINE	179	LIN. FT.	15.00	2,685.00	
B" WATER LINE	657	LIN. FT.	17.00	11,169.00	
N-LINE BLOWOFF ASSEMBLY	2	EACH	800.00	1,600.00	
AUTOMATIC AIR RELEASE ASSEMBLY	1	EACH	800.00	800.00	
					sub 21,181.0
FIRE HYDRANT ASSEMBLY	2	EACH	1,500.00	3,000.00	
FIRE DEPARTMENT CONNECTION	1	EACH	1,500.00	1,500.00	
WATER METER VAULT	1	EACH	3,500.00	3,500.00	
1 1/2" WATER METER	1	EACH	2,300.00	2,300.00	10 700 (
		<u> </u>			sub 10,300.0
SANITARY SEWER CLEANOUT BOX, TRAFFIC BEARING	5	EACH.	300.00	1,500.00	<u> </u>
6" SANITARY SEWER LINE	520	LIN, FT.	15.00	7,800.00	
STANDARD MANHOLE FRAME AND COVERS (SAMPLING MH)	1	EACH	1,500.00	1,500.00	<del>                                     </del>
			· · · · · · · · · · · · · · · · · · ·		sub 10,800.0
WATER AND SANITARY SEWER ASBUILT PLANS	1	LUMP SUM	1,500.00	1,500.00	
					sub 1,500.0
LANDSCAPING	1	LUMP SUM	14,000.00	14,000.00	
					sub 14,000.0
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SURTOTAL	`		· · · · · · · · · · · · · · · · · · ·	\$ 247,230.00	<del> </del>
SUBTOTAL 10% CONTINCENCY			<u> </u>	\$ 24,770.00	
10% CONTINGENCY	<del> </del>	<u> </u>		₩ ∠ <del>1</del> ,//0.00	
			<u> </u>		
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ESTIMATED TOTAL	1	Ì		\$ 272 000 00	
ESTIMATED TOTAL				\$ 272,000.00	

## **GENERAL NOTES**

All construction methods and materials shall conform to the Construction Standards and Specifications of Roanoke County, the Western Virginia Water Authority and/or the Virginia Department of Transportation.

The contractor or developer is required to notify the Roanoke County Engineering Division and the Western Virginia Water Authority in writing at least three (3) days prior to construction, including, but not limited to the following:

- A. Installation of approved erosion control devices
- B. Clearing and grubbing C. Subgrade excavation
- D. Installing storm sewers or culverts
- E. Setting curb and gutter forms
- F. Placing curb and gutter
- G. Placing other concrete
- H. Placing gravel base I. Placing any roadway surface
- J. Installing water lines
- K. Installing sanitary sewer lines

A pre-construction conference should be scheduled with the Roanoke County Engineering Division and the Western Virginia Water Authority, to be held at least one (1) day prior to any construction.

Measures to control erosion and siltation must be provided prior to plan approval. Plan approval in no way relieves the developer or contractor of the responsibilities contained within the erosion and siltation control policies.

A permit must be obtained from the V.D.Q.T. Salem Residency Office prior to construction in the highway right-of-way.

Plan approval does not guarantee Issuance of any permits by V.D.D.T.

An approved set of plans and all permits must be available at the construction site.

Field construction shall honor proposed drainage divides as shown

All unsuitable material shall be removed from the construction limits of the roadway before placing embankment.

All roadside ditches or grades of more than 5 percent shall be paved with cement concrete to the limits as indicated on the plans and as required at the field inspection.

Location of guard rails shall be determined at a joint field inspection by the County and V.D. []. T.

All springs shall be capped and piped to the nearest storm sewer or natural watercourse. The pipe shall be 6 inch minimum diameter and conform to V.D.O.T. Standard SB-1,

Standard street and traffic control signs shall be erected at each intersection by the developer prior to final street acceptance.

Construction debris shall be containerized in accordance with the Virginia Litter Control Act. No less than one litter receptacle shall be provided on site.

The contractor shall provide adequate means of cleaning mud from trucks and/or other equipment prior to entering public streets. It is the contractors responsibility to insure that the streets are in a clean, mud and dust free condition at all times.

The developer and/or contractor shall supply all utility companies with copies of approved plans, advising them that all grading and installation shall conform to approved plans.

Contractors shall notify utilities of proposed construction at least two (2), but not more than ten (10) working days in advance. Area public utilities may be notified thru "Miss Utility": 1-800-552-7001.

The developer or contractor shall supply the county and the Western Virginia Water Authority with correct As-Built plans before final acceptance.

All work shall be subject to inspection by Roanoke County, the Western Virginia

Water Authority, and/or V.D.O.T. Inspectors. Fleld corrections shall be approved by the Roanoke County Engineering Division and the Western Virginia Water Authority prior to such construction.

100 year floodway and floodplain information shall be shown where

Grade stakes shall be set for all curb and gutter, culvert, sanitary sewer and storm sewer.

applicable.

#### **SEWER NOTES**

All sanitary sewer connections to existing lines shall be coordinated with and performed by the Western Virginia Water Authority.

All sanitary sewer facilities are to be installed according to the Western Virginia Water Authority Design and Construction Standards.

A minimum cover of three (3) feet is required over proposed lines.

Contractor shall be responsible for locating and uncovering all manholes after paving. Manhole tops shall be adjusted to grade

All existing utilities may not be shown or may not be shown in the exact location. The contractor shall comply with State Water Works Regulations, Section 12.05.03, where lines cross.

House connections are to be made with 4" pipe installed at a minimum grade of 1/4 inch to 1 foot in R/W.

Laterals from manholes shall be PVC or Ductile Iron of sufficient length to provide two (2) feet of bearing on natural ground. The transition from ductile iron to asbestos cement or concrete pipe shall be made with an adapter coupling in R/W.

All trenches in existing or future rights—of—way shall be compacted according to V.D.O.T. standards.

Lines shall be staked prior to construction.

#### **VICINITY MAP**

SEE LUMSDEN ASSOCIATES, P.C. COVER SHEET

#### **WATER NOTES**

All water connections to existing lines shall be coordinated with and performed by the Western Virginia Water Authority.

All water facilities are to be installed according to the Western Virginia Water Authority Design and Construction Standards.

A minimum cover of three (3) feet is required over proposed lines.

Contractor shall be responsible for locating and uncovering valve vaults after paving and adjustment to final grade if necessary.

All existing utilities may not be shown or may not be shown in the exact location. The contractor shall comply with the State Water Works Regulations, Section 12.05.03, where lines cross.

All trenches in existing or future highway right—of—ways shall be compacted according to V.D.O.T. standards.

Lines shall be staked prior to construction.

Water main shall be minimum Class 350 Ductile Iron in accordance to AWWA C151 or DR-14 PVC in accordance with AWWA C-900.

Availability number <u>07-436</u>

### **LEGEND** Property Line Right-of-way Centerline Minimum Building Line Existing Storm Sewer Existing Sanitary Sewer Existing Water Main Existing Contour Proposed Contour Proposed Drainage Divide Proposed Limits of Clearing Proposed Storm Sewer Proposed Sanitary Sewer Proposed Water Main HYDRANT T-VALVE

## SURVEY INFORMATION

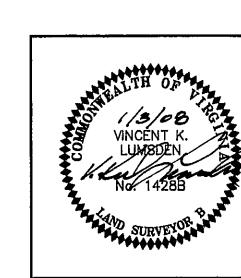
Horizontal and vertical control surveys were performed in (year) 2006 AND 2007 by\_LUMSDEN ASSOCIATES, P.C.

All elevations must be referenced to the National Geodetic Vertical Datum of 1929.

Source of topographic mapping is AERIAL MAPPING BY OTHERS AND UPDATED BY FIELD SURVEY IN 2006 AND 2007 BY LUMSDEN ASSOCIATES, P.C.

Boundary was performed by <u>LUMSDEN ASSOCIATES</u>, P.C.

The professional seal and signature below certifies the boundary survey and topographic mapping to be accurate and correct.



PROFESSIONAL SEAL AND SIGNATURE

# COUNTY OF ROANOKE

# INDEX

SEE LUMSDEN ASSOCIATES. P.C. COVER SHEET

NAME OF DEVELOPMENT

SITE DEVELOPMENT PLANS TRACTOR SUPPLY COMPANY AT GANDER MOUNTAIN PLAZA

MAGISTERIAL DISTRICT(S)

HOLLINS

ENGINEER, ARCHITECT OR SURVEYOR (name, address, telephone)

OF THE SITE DESIGN REQUIREMENTS IMPOSED BY THIS SITE DEVELOPMENT PLAN AND OTHER APP-LICABLE COUNTY CODES. I HEREBY CERTIFY THAT, I AGREE TO COMPLY WITH THESE REQUIREMENTS, UNLESS MODIFIED IN ACCORDANCE WITH LOCAL LAW.

DWNER (name, address, telephone)

5125 COUNTY ROAD 101, #100

KTJ LIMITED PARTNERSHIP ON HUNDRED SEVENTY SEVEN (ATTN: LARRY BARRETT)

MINNETONKA, MN 55345 19521 294-1245

DEVELOPER (name, address, telephone) SAME AS OWNER

LUMSDEN ASSOCIATES, P.C.

P.O. BOX 20669 ROANOKE, VIRGINIA 24018

1540) 774-4411

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BLOCK NO(S)\_

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PARCEL NO(S)

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COMM. No.: 2007-273

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