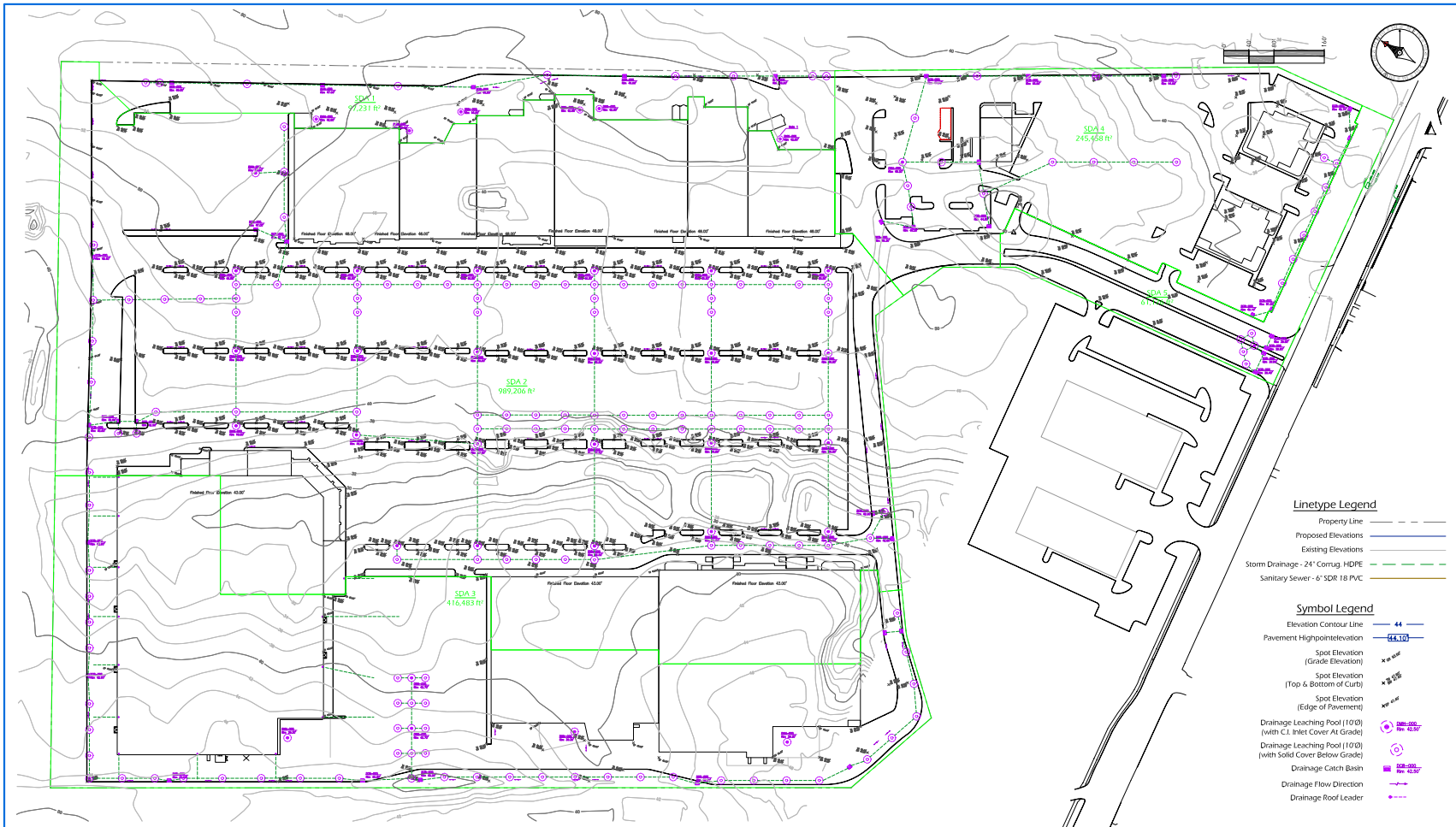
Appendix Q



GENERAL INFORMATION

Location of Site: Town of Riverhead, Suffolk County
Access: County Road 58 and Kroemer Avenue in the Town of Riverhead

Suffolk County Tax Map Numbers:	600-101-01-03 & 600-119-01-06		
Zoning District:	DRC (Destination Retail Center)		
Area Data:	600-101-01-03	= 1,698,573.66ft²	(38.99 Acres)
	600-119-01-06	= 67,500.00 ft²	(1.55 Acres)
	600-119-01-05.1	= 43,826.80 ft²	(1.01 Acres)
	Total Site Area	= 1,809,900.46ft²	(41.55 Acres)

Survey information taken from survey done by:
Joseph Ingegno, Land Surveyor (Dated 12-18-2006)

Basis of Design of Storm Drainage System

Based On SCDHS Code

SDA-1

Total Area: 97,231 ft²

Roof Surface Area:	880 ft² x 2" Storm x 1.0 Run-Off Coefficient	112 ft²
Paved Surface Area:	71,868 ft² x 2" Storm x 0.9 Run-Off Coefficient	10,992 ft²
Concrete Surface Area:	0 ft² x 2" Storm x 1.0 Run-Off Coefficient	0 ft²
Grass / Landscape Area:	24,725 ft² x 2" Storm x 0.3 Run-Off Coefficient	1,261 ft²

SDA-1 Required Storm Water Volume: 12,366 ft³

Using ADS "Grate Aire Pipe" - 24" Corrugated HDPE Pipe(402 Leach Bed" Style) @ 3.14 ft³ lin. foot to connect to 1,210 x 6' high precast concrete leaching rings @ 605 ft³ each. (2) two rings per unit capable of holding 1,210 ft³ per unit.

952 ft. of pipe x 3.14 ft³ per ft. = 2,989 ft³ Pipe Storage	12,366 ft³ Req'd Storage − 2,989 ft³ Pipe Storage = 9,376 ft³ Req'd Unit Storage	9,376 ft³ Req'd Unit Storage ÷ 1,210 ft³ Storage per Unit	Required: 7.7 Units; Provided: 8 Units

SDA-1 Provided Storm Water Volume: 12,669 ft³

SDA-2

Total Area: 989,206 ft²

Roof Surface Area:	286,768 ft² x 2" Storm x 1.0 Run-Off Coefficient	48,751 ft²
Paved Surface Area:	598,944 ft² x 2" Storm x 0.9 Run-Off Coefficient	91,338 ft²
Concrete Surface Area:	28,442 ft² x 2" Storm x 1.0 Run-Off Coefficient	4,496 ft²
Grass / Landscape Area:	77,052 ft² x 2" Storm x 0.3 Run-Off Coefficient	3,930 ft²

SDA-2 Required Storm Water Volume: 148,514 ft³

Using ADS "Grate Aire Pipe" - 24" Corrugated HDPE Pipe(402 Leach Bed" Style) @ 3.14 ft³ lin. foot to connect to 1,210 x 6' high precast concrete leaching rings @ 605 ft³ each. (2) two rings per unit capable of holding 1,210 ft³ per unit.

5,236 ft. of pipe x 3.14 ft³ per ft. = 16,441 ft³ Pipe Storage	148,514 ft³ Req'd Storage − 16,441 ft³ Pipe Storage = 132,373 ft³ Req'd Unit Storage	132,373 ft³ Req'd Unit Storage ÷ 1,210 ft³ Storage per Unit	Required: 109.4 Units; Provided: 110 Units

SDA-2 Provided Storm Water Volume: 149,541 ft³

SDA-3

Total Area: 416,483 ft²

Roof Surface Area:	83,793 ft² x 2" Storm x 1.0 Run-Off Coefficient	14,245 ft²
Paved Surface Area:	256,291 ft² x 2" Storm x 0.9 Run-Off Coefficient	39,213 ft²
Concrete Surface Area:	18,071 ft² x 2" Storm x 1.0 Run-Off Coefficient	3,072 ft²
Grass / Landscape Area:	58,328 ft² x 2" Storm x 0.3 Run-Off Coefficient	2,975 ft²

SDA-3 Required Storm Water Volume: 59,504 ft³

Using ADS "Grate Aire Pipe" - 24" Corrugated HDPE Pipe(402 Leach Bed" Style) @ 3.14 ft³ lin. foot to connect to 1,210 x 6' high precast concrete leaching rings @ 605 ft³ each. (2) two rings per unit capable of holding 1,210 ft³ per unit.

1,736 ft. of pipe x 3.14 ft³ per ft. = 5,452 ft³ Pipe Storage	59,504 ft³ Req'd Storage − 5,452 ft³ Pipe Storage = 54,022 ft³ Req'd Unit Storage	54,022 ft³ Req'd Unit Storage ÷ 1,210 ft³ Storage per Unit	Required: 44.6 Units; Provided: 45 Units

SDA-3 Provided Storm Water Volume: 59,932 ft³

SDA-4

Total Area: 245,458 ft²

Roof Surface Area:	17,182 ft² x 2" Storm x 1.0 Run-Off Coefficient	2,921 ft²
Paved Surface Area:	193,261 ft² x 2" Storm x 0.9 Run-Off Coefficient	29,589 ft²
Concrete Surface Area:	5,582 ft² x 2" Storm x 1.0 Run-Off Coefficient	949 ft²
Grass / Landscape Area:	29,433 ft² x 2" Storm x 0.3 Run-Off Coefficient	1,501 ft²

SDA-4 Required Storm Water Volume: 34,960 ft³

Using ADS "Grate Aire Pipe" - 24" Corrugated HDPE Pipe(402 Leach Bed" Style) @ 3.14 ft³ lin. foot to connect to 1,210 x 6' high precast concrete leaching rings @ 605 ft³ each. (2) two rings per unit capable of holding 1,210 ft³ per unit.

600 ft. of pipe x 3.14 ft³ per ft. = 1,884 ft³ Pipe Storage	34,960 ft³ Req'd Storage − 1,884 ft³ Pipe Storage = 33,056 ft³ Req'd Unit Storage	33,056 ft³ Req'd Unit Storage ÷ 1,210 ft³ Storage per Unit	Required: 27.3 Units; Provided: 28 Units

SDA-4 Provided Storm Water Volume: 35,764 ft³

SDA-5

Total Area: 61,176 ft²

Roof Surface Area:	0 ft² x 2" Storm x 1.0 Run-Off Coefficient	0 ft²
Paved Surface Area:	30,970 ft² x 2" Storm x 0.9 Run-Off Coefficient	4,738 ft²
Concrete Surface Area:	0 ft² x 2" Storm x 1.0 Run-Off Coefficient	0 ft²
Grass / Landscape Area:	30,206 ft² x 2" Storm x 0.3 Run-Off Coefficient	1,541 ft²

SDA-5 Storm Water Volume: 6,279 ft³

Using ADS "Grate Aire Pipe" - 24" Corrugated HDPE Pipe(402 Leach Bed" Style) @ 3.14 ft³ lin. foot to connect to 1,210 x 6' high precast concrete leaching rings @ 605 ft³ each. (2) two rings per unit capable of holding 1,210 ft³ per unit.

120 ft. of pipe x 3.14 ft³ per ft. = 377 ft³ Pipe Storage	6,279 ft³ Req'd Storage − 377 ft³ Pipe Storage = 5,902 ft³ Req'd Unit Storage	5,902 ft³ Req'd Unit Storage ÷ 1,210 ft³ Storage per Unit	Required: 4.8 Units; Provided: 5 Units

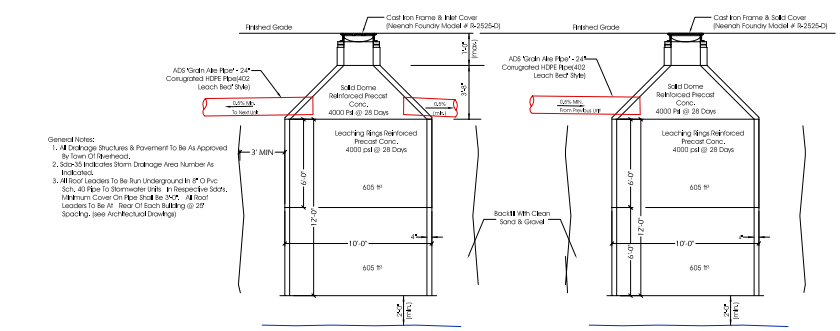
SDA-5 Provided Storm Water Volume: 6,427 ft³

Linetype Legend

- Property Line
- Proposed Elevations
- Existing Elevations
- Storm Drainage - 24" Corrug. HDPE
- Sanitary Sewer - 6" SDR 18 PVC

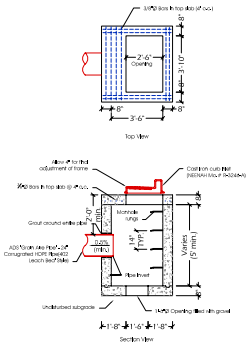
Symbol Legend

- Elevation Contour Line — 44
- Pavement Highpointelevation — 44.10
- Spot Elevation (Grade Elevation) — × 48.00
- Spot Elevation (Top & Bottom of Curb) — × 48.00 / 47.50
- Spot Elevation (Edge of Pavement) — × 47.50
- Drainage Leaching Pool (10'Ø) (with C.I. Inlet Cover At Grade) — DMH-000, Rim 42.50'
- Drainage Leaching Pool (10'Ø) (with Solid Cover Below Grade)
- Drainage Catch Basin — DCB-000, Rim 42.50'
- Drainage Flow Direction
- Drainage Roof Leader

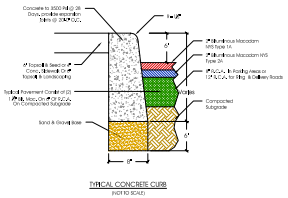


TYPICAL STORM WATER DISTRIBUTION UNIT
TOTAL STORAGE PER UNIT = 1,210 ft³
(NOT TO SCALE)

TYPICAL STORM WATER LEACHING UNIT
TOTAL STORAGE PER UNIT = 1,210 ft³
(NOT TO SCALE)



Typical Catch Basin
(NOT TO SCALE)



TYPICAL CONCRETE CURB
(NOT TO SCALE)

Date	Revision	Approval By:

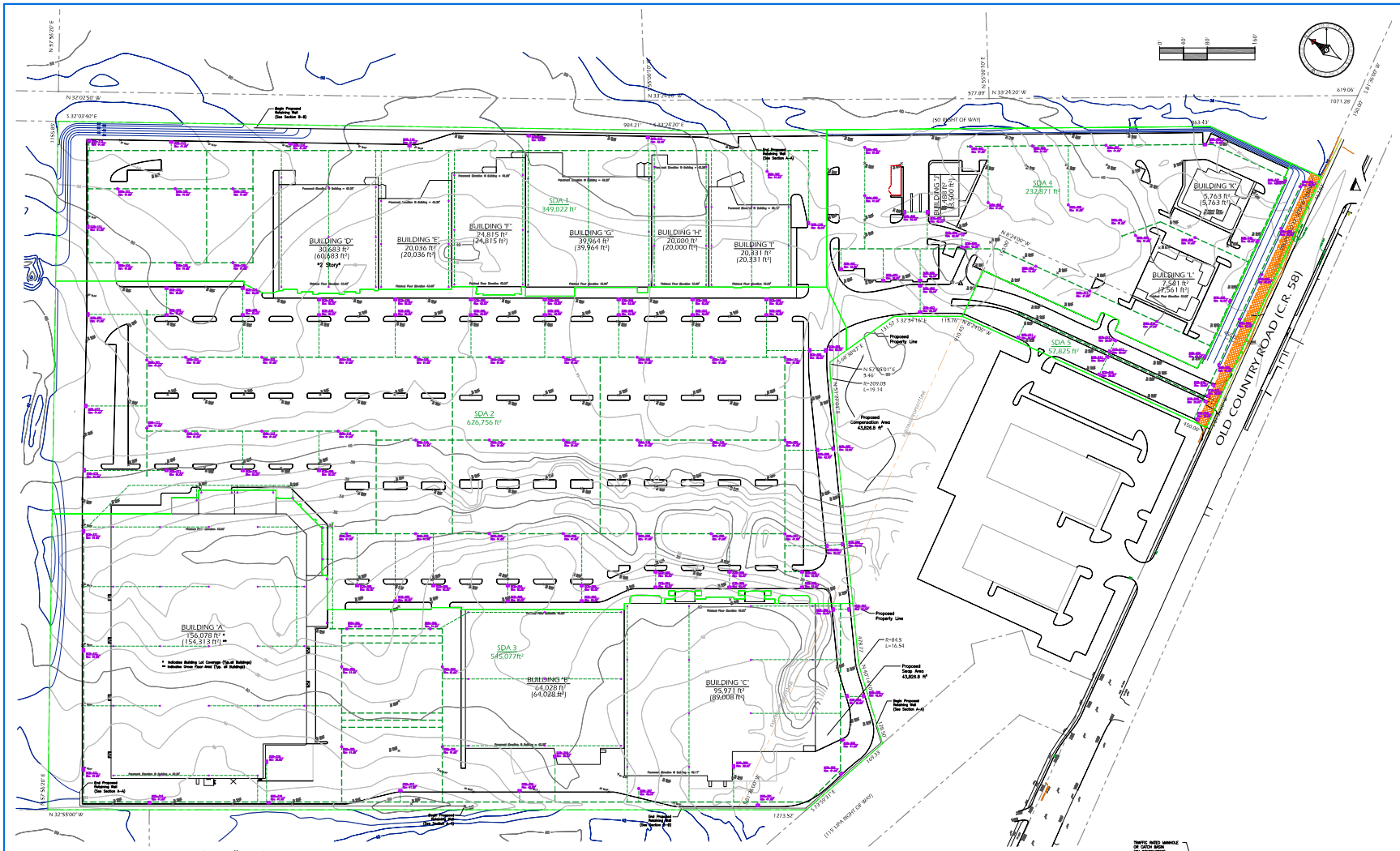
The Shops at Riverhead

County Road 58
Riverhead, N.Y. 11901

E.S. KALOGERAS, P.E
Consulting Engineer
UNION SQUARE, 727 UNION AVENUE, RIVERHEAD NEW YORK, 11901
TEL: (631) 722-4040 FAX: (631) 722-4004
E-mail: ESKalogeras@msn.com

UNAUTHORIZED ALTERATION OR ADDITION TO THIS DRAWING AND REVISED DOCUMENTS IS A VIOLATION OF SEC. 7209 OF THE N.Y.S. EDUCATION LAW

Sheet By:	Date:	Scale:	Dwg. No:
Paul F. Sigismondi	Janurary 9thth, 2008	1" = 80'	U1A
Job #: DRC 06-01	Sheet Title: Alterintive Grading & Drainage Plan		1 of 1



GENERAL INFORMATION

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Access: County Road 58 and Kroemer Avenue in the Town of Riverhead

Suffolk County Tax Map Numbers:			600-101-01-03 & 600-119-01-06
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Area Data:	600-101-01-26, 03	= 1,698,573.66ft²	(38.99 Acres)
	600-119-01-06	= 67,500.00 ft²	(1.55 Acres)
	600-119-01-26, 5.1	= 43,826.80 ft²	(1.01 Acres)
	Total Site Area	= 1,809,900.46ft²	(41.55 Acres)

Survey information taken from survey done by:
Joseph Ingegno, Land Surveyor (Dated 12-18-2006)

Basis of Design of Storm Drainage System

Based On SCDHS Code

SDA-1

Total Area:			349,022 ft²
Roof Surface Area:	160,540 ft² x 2" Storm x 1.0 Run-Off Coefficient		27,292 ft³
Paved Surface Area:	145,338 ft² x 2" Storm x 0.9 Run-Off Coefficient		22,237 ft³
Concrete Surface Area:	2,738 ft² x 2" Storm x 1.0 Run-Off Coefficient		455 ft³
Grass / Landscape Area:	40,607 ft² x 2" Storm x 0.3 Run-Off Coefficient		2,061 ft³
SDA-1 Required Storm Water Volume:			52,055 ft³
Using 81" x 59" Perforated Galvanized Arched Drain Pipe capable of holding 24.7 ft³ per linear foot			
52,055 ft³ / 24.7 ft³ = 1,900 linear feet		Required	1,900 ft
2,334 ft x 24.7 ft³ = 63,951 ft³		Provided	2,334 ft
SDA-1 Provided Storm Water Volume:			63,951 ft³

SDA-2

Total Area:			626,756 ft²
Roof Surface Area:	0 ft² x 2" Storm x 1.0 Run-Off Coefficient		0 ft³
Paved Surface Area:	539,475 ft² x 2" Storm x 0.9 Run-Off Coefficient		82,540 ft³
Concrete Surface Area:	24,572 ft² x 2" Storm x 1.0 Run-Off Coefficient		4,177 ft³
Grass / Landscape Area:	62,529 ft² x 2" Storm x 0.3 Run-Off Coefficient		3,189 ft³
SDA-2 Required Storm Water Volume:			89,916 ft³
Using 81" x 59" Perforated Galvanized Arched Drain Pipe capable of holding 24.7 ft³ per linear foot			
89,916 ft³ / 24.7 ft³ = 3,640 linear feet		Required	3,640 ft
4,120 ft x 24.7 ft³ = 101,764 ft³		Provided	4,120 ft
SDA-2 Provided Storm Water Volume:			101,764 ft³

SDA-3

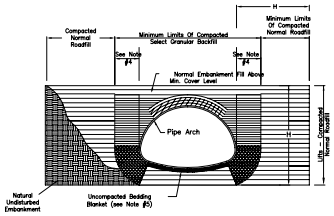
Total Area:			545,077 ft²
Roof Surface Area:	310,135 ft² x 2" Storm x 1.0 Run-Off Coefficient		52,723 ft³
Paved Surface Area:	158,322 ft² x 2" Storm x 0.9 Run-Off Coefficient		24,223 ft³
Concrete Surface Area:	17,783 ft² x 2" Storm x 1.0 Run-Off Coefficient		3,023 ft³
Grass / Landscape Area:	58,838 ft² x 2" Storm x 0.3 Run-Off Coefficient		3,001 ft³
SDA-3 Required Storm Water Volume:			82,970 ft³
Using 81" x 59" Perforated Galvanized Arched Drain Pipe capable of holding 24.7 ft³ per linear foot			
82,970 ft³ / 24.7 ft³ = 3,359 linear feet		Required	3,359 ft
3,650 ft x 24.7 ft³ = 100,010 ft³		Provided	3,650 ft
SDA-3 Provided Storm Water Volume:			100,010 ft³

SDA-4

Total Area:			232,871 ft²
Roof Surface Area:	17,182 ft² x 2" Storm x 1.0 Run-Off Coefficient		3,028 ft³
Paved Surface Area:	184,559 ft² x 2" Storm x 0.9 Run-Off Coefficient		28,238 ft³
Concrete Surface Area:	3,648 ft² x 2" Storm x 1.0 Run-Off Coefficient		620 ft³
Grass / Landscape Area:	26,994 ft² x 2" Storm x 0.3 Run-Off Coefficient		1,377 ft³
SDA-4 Required Storm Water Volume:			33,263 ft³
Using 81" x 59" Perforated Galvanized Arched Drain Pipe capable of holding 24.7 ft³ per linear foot			
33,263 ft³ / 24.7 ft³ = 1,210 linear feet		Required	1,347 ft
1,788 ft x 24.7 ft³ = 44,164 ft³		Provided	1,788 ft
SDA-4 Provided Storm Water Volume:			44,164 ft³

SDA-5

Total Area:			57,825 ft²
Roof Surface Area:	0 ft² x 2" Storm x 1.0 Run-Off Coefficient		0 ft³
Paved Surface Area:	28,863 ft² x 2" Storm x 0.9 Run-Off Coefficient		4,385 ft³
Concrete Surface Area:	0 ft² x 2" Storm x 1.0 Run-Off Coefficient		0 ft³
Grass / Landscape Area:	29,162 ft² x 2" Storm x 0.3 Run-Off Coefficient		1,487 ft³
SDA-5 Storm Water Volume:			5,872 ft³
Using 42" Ø Perforated Galvanized Drain Pipe capable of holding 9.6 ft³ per linear foot			
5,872 ft³ / 9.6 ft³ = 612 linear feet		Required	612 ft
730 ft x 9.6 ft³ = 7,008 ft³		Provided	730 ft
SDA-5 Provided Storm Water Volume:			7,008 ft³



SECTION

Critical backfill zone, pressure on soil greatest here.

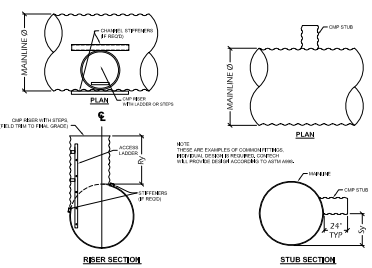
Initial lifts over crown of structure as indicated by shaded area to be compacted to required density with hand operated equipment or with small tractor (d-4 or smaller) drawn equipment.

Select granular structural backfill limits.

CORRUGATED METAL PIPE-ARCH
TYPICAL BACKFILL SECTION

NOTES:

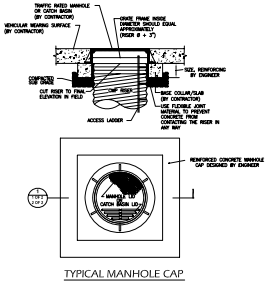
1. All select granular backfill to be placed in a balanced fashion in thin lifts (6"-8" loose typically) and compacted to 90 percent density per AASHTO T-180.
2. Complete and regular monitoring of the CSP arch shape is necessary during all backfilling of the structure.
3. Prevent excessive distortion of shape as necessary by varying compaction methods and equipment.
4. This width should be equal to 1/2 span to one span width typically. Greater or lesser distance may be required. Distance depends on bearing load for any given loading, structure shape and backfill material. This must be evaluated by the Project Engineer for each specific situation.
5. Shaped bed for a minimum width of span/2. Minimum bedding thickness is twice the corrugation depth.
6. Embankment width H to be such that a stable embankment capable of resisting side pressures from CSP pipe-arch shape will be maintained throughout the life of installation. This width to be determined by the Project Engineer.



RISER SECTION

STUB SECTION

TYPICAL FITTINGS FOR
CORRUGATED METAL PIPE-ARCH



TYPICAL MANHOLE CAP

NOTES:

1. THE CONCRETE CAP SHALL BE SIZED AND DESIGNED BY OTHERS SO THAT THE LOADS ARE TRANSMITTED TO THE SOIL AND NOT TO THE PIPE.
2. THE CONCRETE CAP SHALL BE SIZED TO PROVIDE AN ADEQUATE BOTTOM AREA BASED ON THE ALLOWABLE BEARING CAPACITY OF THE SOIL.
3. THE FLEXIBLE JOINT MATERIAL (RECYCLED VINYL OR EQ.) TO BE STIFF ENOUGH SO THAT THE CONCRETE CAN NEVER ENGAGE WITH THE RISER CORRUGATIONS.

Date	Revision	Approval By:

STATE OF NEW YORK — ESS. E. KALOGERAS — No. 042115 — LICENSED PROFESSIONAL ENGINEER

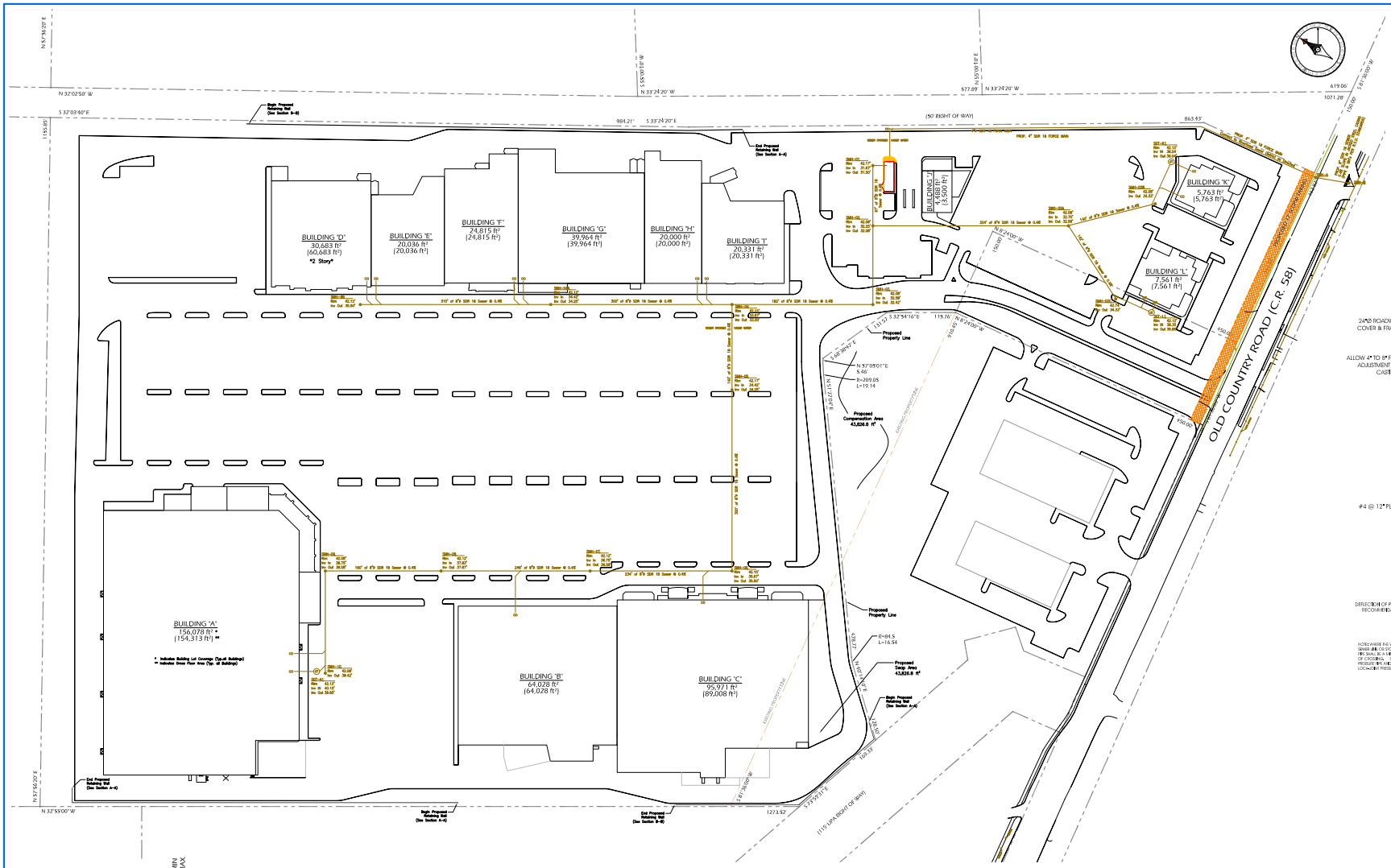
UNAUTHORIZED ALTERATION OR ADDITION TO THIS DRAWING AND REVIEWED DOCUMENTS IS A VIOLATION OF SEC. 7209 OF THE N.Y.S. EDUCATION LAW

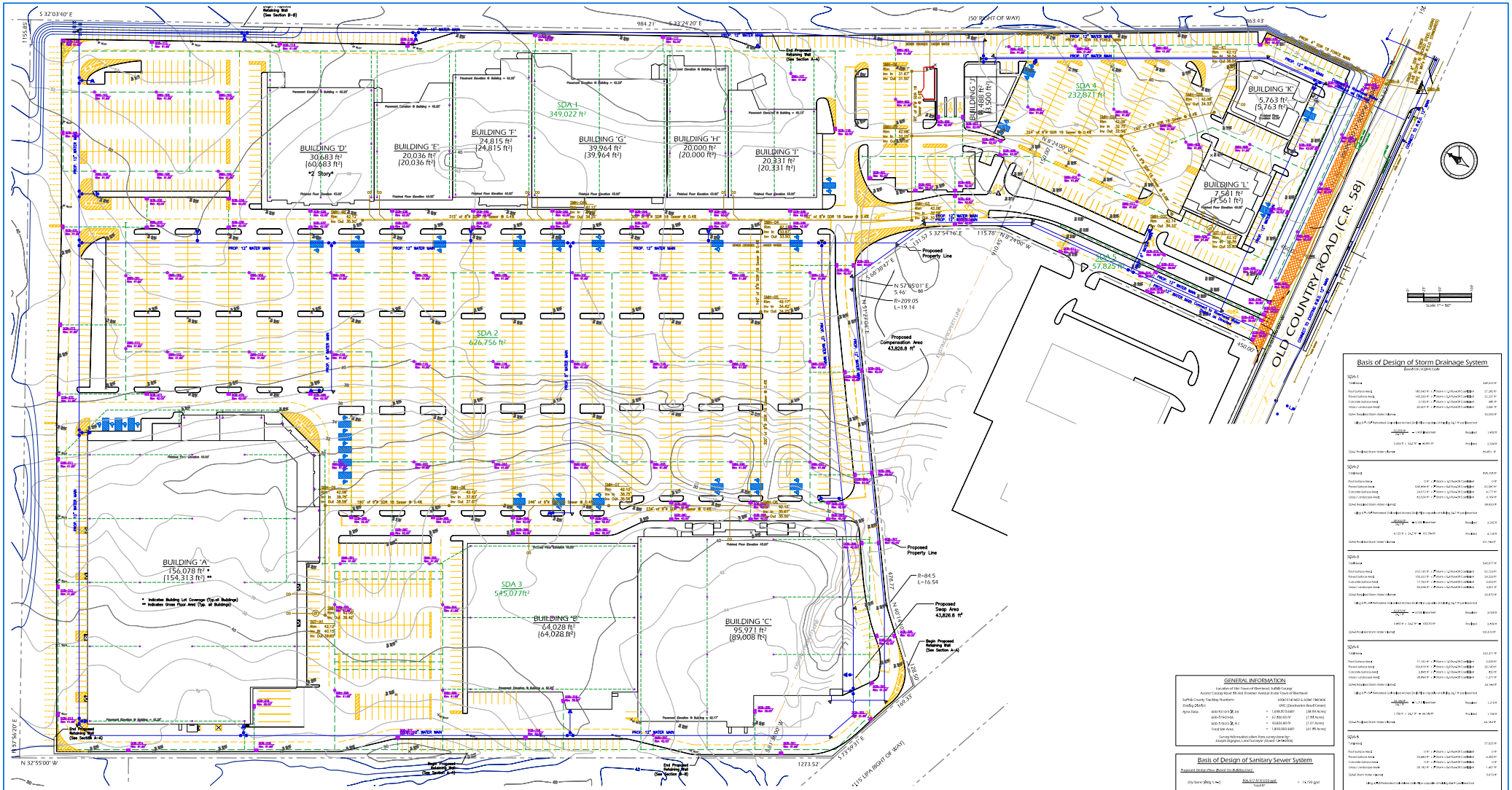
The Shops at Riverhead

County Road 58
Riverhead, N.Y. 11901

E.S. KALOGERAS, P.E
Consulting Engineer
UNION SQUARE, 727 UNION AVENUE, RIVERHEAD NEW YORK, 11901
TEL: (631) 722-4040 FAX: (631) 722-4004
E-mail: kalogeras@msn.com

Sheet By: Paul F. Sigismondi	Date: May 11th, 2007	Scale: 1" = 80'	Dwg. No: U1	
Job #: DRC 06-01	Sheet Title: Grading & Drainage Plan		1 of 5	


BUILDING 'D'
30,683 ft²
(60,683 ft²)
2 Story
BUILDING 'E'
20,036 ft²
(20,036 ft²)
BUILDING 'F'
24,815 ft²
(24,815 ft²)
BUILDING 'G'
39,964 ft²
(39,964 ft²)
BUILDING 'H'
20,000 ft²
(20,000 ft²)
BUILDING 'I'
20,331 ft²
(20,331 ft²)
BUILDING 'J'
5,488 ft²
(5,500 ft²)
BUILDING 'K'
5,763 ft²
(5,763 ft²)
BUILDING 'L'
7,561 ft²
(7,561 ft²)
BUILDING 'A'
156,078 ft² *
(156,313 ft²) **
BUILDING 'B'
64,028 ft²
(64,028 ft²)
BUILDING 'C'
95,971 ft²
(89,008 ft²)
OLD COUNTRY ROAD (C.R. 58)
(50' RIGHT OF WAY)
(115' UPA WIDTH OF WAY)
Proposed Property Line
Proposed Compensation Area
43,828.8 ft²
Proposed Swap Area
43,828.8 ft²
Existing Property Line
Begin Proposed Retaining Wall
(See Section A-A)
End Proposed Retaining Wall
(See Section A-A)
N 32°02'50" W
S 32°03'40"E
N 33°24'20" W
S 33°24'20" E
N 57°56'20" E
N 32°55'00" W
S 57°56'20" E
1273.52
984.21'
863.43'
1071.28'
619.06'
1155.95'
150.02'
150.00'
150.31'
150.00'
150.00'
150.00



Basis of Design of Storm Drainage System

Based On SCDHS Code

SDA-1			
Total Area			349,022 ft²
Roof Surface Area	90,540 ft²	* Storm x 1.25/Runoff Coeff (0.9) =	27,362 ft²
Paved Surface Area	145,165 ft²	* Storm x 1.25/Runoff Coeff (0.9) =	22,207 ft²
Concrete Surface Area	2,769 ft²	* Storm x 1.25/Runoff Coeff (0.9) =	685 ft²
Grass / Landscape Area	60,457 ft²	* Storm x 1.25/Runoff Coeff (0.9) =	3,344 ft²
SDA-1 Required Storm Water Volume			53,598 ft³
Less 0.4" x SDA Permeated Grass Landscaped Area (0.4/12 ft) x (60,457 ft² grass/soil)			
60,457 ft² / 12 = 5,038 ft² Grass/Soil		Provided =	1,408 ft³
5,038 ft² x 0.4" = 167 ft³		Required =	1,344 ft³
SDA-1 Proposed Storm Water Volume			52,191 ft³
SDA-2			
Total Area			626,756 ft²
Roof Surface Area	0 ft²	* Storm x 1.25/Runoff Coeff (0.9) =	0 ft³
Paved Surface Area	558,408 ft²	* Storm x 1.25/Runoff Coeff (0.9) =	93,347 ft³
Concrete Surface Area	24,972 ft²	* Storm x 1.25/Runoff Coeff (0.9) =	4,173 ft³
Grass / Landscape Area	43,376 ft²	* Storm x 1.25/Runoff Coeff (0.9) =	3,190 ft³
SDA-2 Required Storm Water Volume			98,710 ft³
Less 0.4" x SDA Permeated Grass Landscaped Area (0.4/12 ft) x (43,376 ft² grass/soil)			
43,376 ft² / 12 = 3,615 ft² Grass/Soil		Provided =	3,192 ft³
3,615 ft² x 0.4" = 120.5 ft³		Required =	4,128 ft³
SDA-2 Proposed Storm Water Volume			101,746 ft³
SDA-3			
Total Area			545,077 ft²
Roof Surface Area	350,185 ft²	* Storm x 1.25/Runoff Coeff (0.9) =	52,528 ft³
Paved Surface Area	156,832 ft²	* Storm x 1.25/Runoff Coeff (0.9) =	24,020 ft³
Concrete Surface Area	17,763 ft²	* Storm x 1.25/Runoff Coeff (0.9) =	3,028 ft³
Grass / Landscape Area	18,334 ft²	* Storm x 1.25/Runoff Coeff (0.9) =	1,651 ft³
SDA-3 Required Storm Water Volume			80,870 ft³
Less 0.4" x SDA Permeated Grass Landscaped Area (0.4/12 ft) x (18,334 ft² grass/soil)			
18,334 ft² / 12 = 1,528 ft² Grass/Soil		Provided =	3,028 ft³
1,528 ft² x 0.4" = 50.9 ft³		Required =	3,659 ft³
SDA-3 Proposed Storm Water Volume			102,930 ft³
SDA-4			
Total Area			232,871 ft²
Roof Surface Area	17,182 ft²	* Storm x 1.25/Runoff Coeff (0.9) =	2,579 ft³
Paved Surface Area	103,818 ft²	* Storm x 1.25/Runoff Coeff (0.9) =	15,140 ft³
Concrete Surface Area	3,969 ft²	* Storm x 1.25/Runoff Coeff (0.9) =	852 ft³
Grass / Landscape Area	28,494 ft²	* Storm x 1.25/Runoff Coeff (0.9) =	1,277 ft³
SDA-4 Required Storm Water Volume			20,348 ft³
Less 0.4" x SDA Permeated Grass Landscaped Area (0.4/12 ft) x (28,494 ft² grass/soil)			
28,494 ft² / 12 = 2,374 ft² Grass/Soil		Provided =	1,218 ft³
2,374 ft² x 0.4" = 79.1 ft³		Required =	1,188 ft³
SDA-4 Proposed Storm Water Volume			20,348 ft³
SDA-5			
Total Area			57,825 ft²
Roof Surface Area	0 ft²	* Storm x 1.25/Runoff Coeff (0.9) =	0 ft³
Paved Surface Area	39,445 ft²	* Storm x 1.25/Runoff Coeff (0.9) =	6,080 ft³
Concrete Surface Area	0 ft²	* Storm x 1.25/Runoff Coeff (0.9) =	0 ft³
Grass / Landscape Area	18,380 ft²	* Storm x 1.25/Runoff Coeff (0.9) =	1,417 ft³
SDA-5 Storm Water Volume			7,497 ft³
Less 0.4" x SDA Permeated Grass Landscaped Area (0.4/12 ft) x (18,380 ft² grass/soil)			
18,380 ft² / 12 = 1,532 ft² Grass/Soil		Provided =	4,124 ft³
1,532 ft² x 0.4" = 51.0 ft³		Required =	738 ft³
SDA-5 Proposed Storm Water Volume			7,856 ft³

GENERAL INFORMATION

Location of Site: Town of Riverhead, Suffolk County
Access: County Road 58 and Riverside Avenue in the Town of Riverhead

Suffolk County Tax Map Numbers:	6004-114-3-4.3 & 6004-114-3-4.6	
Zoning District:	DRC (Destination Retail Center)	
Area Data:	600-113-1-6.3 & 6.6 = 1,690,923.66ft²	(38.80 Acres)
	600-114-3-4.6 = 67,850.00 ft²	(1.58 Acres)
	600.114-3-4.3 = 43,826.80 ft²	(1.01 Acres)
	Total Site Area = 1,809,900.66ft²	(41.35 Acres)

Survey Information taken from survey done by:
Joseph Bagnato, Land Surveyor (Dated 7-24-2006)

Basis of Design of Sanitary Sewer System

Proposed Design Flow (Based On Bulletin 11)

Dry Sewer (Bldg's A-e)	906,817.30 X 0.03 gpd/ft² / 1440 ft²	= 18,793 gpd
Resources (Bldg's K & L)	2.58 Seats X 30 gpd/Seat	= 6,540 gpd
Total Design Flow		= 24,733 gpd

Date	Revision	Approval By

STATE OF NEW YORK
EDWARD P. KALOGERAS
LICENSED PROFESSIONAL ENGINEER

UNAUTHORIZED ALTERATION OR ADDITION TO THIS DOCUMENT IS A VIOLATION OF SEC. 7209 OF THE N.Y.S. EDUCATION LAW

The Shops at Riverhead

County Road 58
Riverhead, N.Y. 11901

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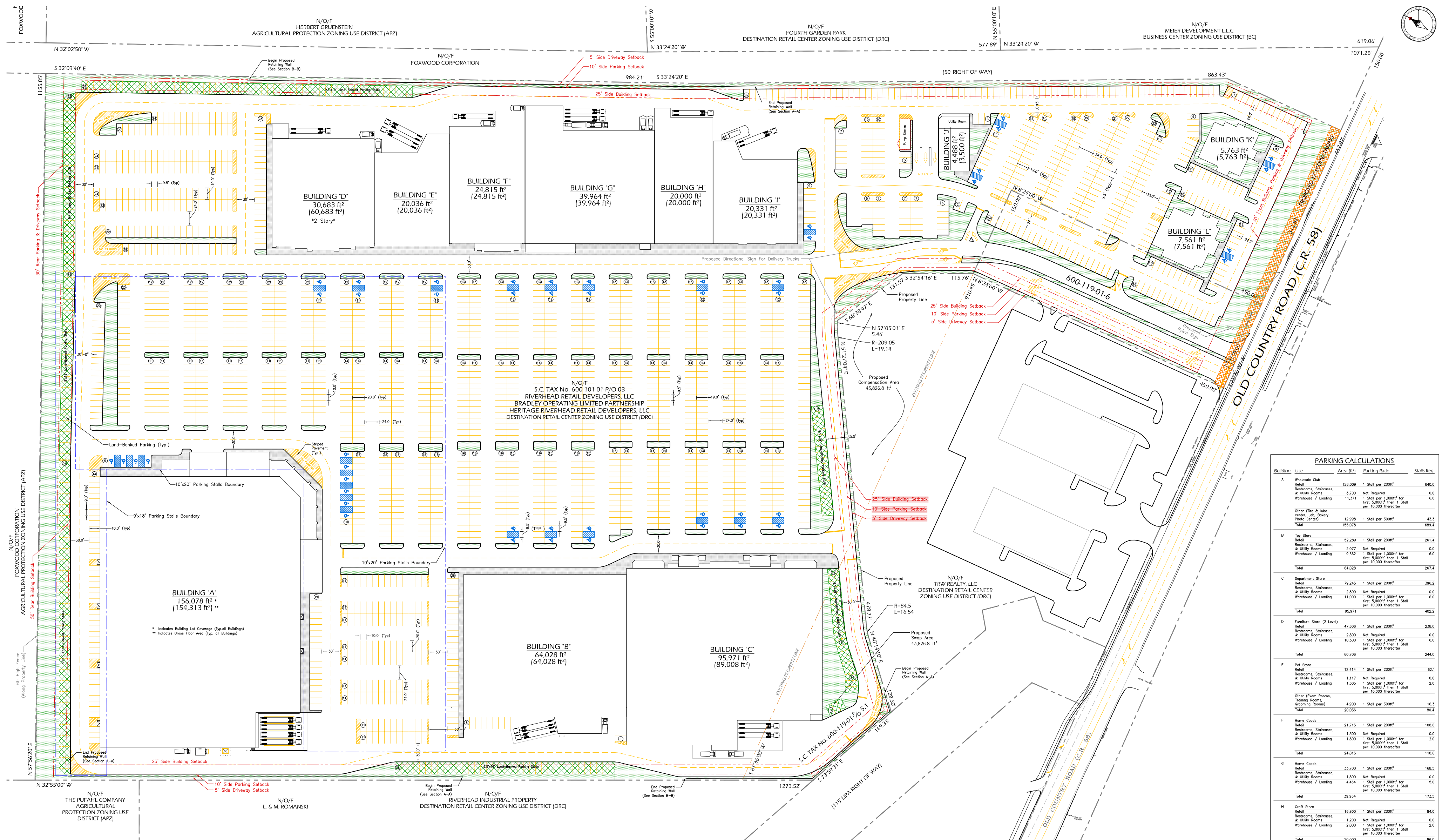
Drawn By: Paul F. Sgiarondi	Date: October 23rd, 2007	Scale: 1" = 50'	Dwg. No.: SW1 of 3
Job #: DRC 06-01	Sheet Title: Site Development Plan		



GENERAL INFORMATION

Location of Site: Town of Riverhead, Suffolk County
Access: County Road 58 in the Town of Riverhead

Suffolk County Tax Map Numbers:		600-101-01-03 & 600-119-01-06	
Zoning District:		DRC (Destination Retail Center)	
Area Data:	600-101-01-P/O 03	= 1,698,573.66ft²	(38.99 Acres)
	600-119-01-06	= 67,500.00 ft²	(1.55 Acres)
	600-119-01-P/O 5.1	= 43,826.80 ft²	(1.01 Acres)
	Total Site Area	= 1,809,900.46ft²	(41.55 Acres)

Survey information taken from survey done by:
Joseph Ingegno, Land Surveyor (Dated 12-18-2006)

BUILDING AREA

Building	Building Use	Build Lot Coverage	Gross Floor Area
A	Wholesale Club	154,313 ft²	152,378 ft²
B	Retail Store	64,028 ft²	61,951 ft²
C	Retail Store	89,008 ft²	93,171 ft²
D	Retail Store	30,683 ft²	57,906 ft²
E	Retail Store	20,036 ft²	18,919 ft²
F	Retail Store	24,815 ft²	23,515 ft²
G	Retail Store	39,964 ft²	38,164 ft²
H	Retail Store	20,000 ft²	18,800 ft²
I	Retail Store	20,331 ft²	19,131 ft²
J	Retail Store	4,488 ft²	3,500 ft²
K	Restaurant	5,763 ft²	5,213 ft²
L	Restaurant	7,561 ft²	6,961 ft²
Total 12		480,990 ft²	499,609 ft²

Total Building Lot Area measures to exterior walls of all buildings.
Gross Floor Area is total floor area minus space used for public restrooms, stairways, elevators, mechanical equipment and maintenance.

TRANSFER OF DEVELOPMENT RIGHTS

1,500 ft² of Additional Gross Floor Area = 1 Development Credit

1,809,900.46 ft² x 0.20 = 361,980 ft²

Of Gross Floor Area by Right Without TDRs

499,609 ft² - 361,980 ft² = 137,629 ft²

Of Additional Gross Floor Area

137,629 ft²/1,500 ft² = 91.75

TDR Credits Required 92

Destination Retail Center (DRC) Zoning Use District. Preservation credits may be used to increase the development yield associated with site plan applications made to the Town Board pursuant to Article XXVI of the Riverhead Zoning Ordinance. In its review and approval of such site plan applications, the Town Board may increase the allowable development yield at a rate of an additional 1,500 square feet of floor area per preservation credit redeemed to a maximum 0.3 floor area ratio.

FINAL BUILDING LOT COVERAGE (FOOTPRINT)

Building Lot Coverage: 480,990 ft²/1,809,900.46 ft²=26.58%

Description	Allowed	Provided
Building Lot Coverage with Transfer of Development Rights	30.00 %	26.52 %
Building Lot Coverage without Transfer of Development Rights	15.00 %	26.52 %

FINAL FLOOR AREA RATIO

Gross Floor Area: 499,609 ft² / 1,809,900.46 ft² = 0.28

Description	Allowed	Provided
Gross Floor Area Ratio with Transfer of Development Rights	60.00 %	27.60 %
Gross Floor Area Ratio without Transfer of Development Rights	20.00 %	27.60 %

DRC ZONING SETBACK REQUIREMENTS

Description		Required	Provided
Front Yard	(Building)	50 ft	99.00 ft
Rear Yard	(Building)	50 ft	99.00 ft
Side Yard-R	(Building)	25 ft	40.70 ft
Side Yard-L	(Building)	25 ft	40.00 ft
Front Yard	(Driveway)	50 ft	50.00 ft
Rear Yard	(Driveway)	30 ft	50.50 ft
Side Yard-R	(Driveway)	5 ft	10.00 ft
Side Yard-L	(Driveway)	5 ft	10.00 ft
Front Yard	(Parking)	50 ft	55.00 ft
Rear Yard	(Parking)	30 ft	31.20 ft
Side Yard-R	(Parking)	10 ft	10.00 ft
Side Yard-L	(Parking)	10 ft	10.00 ft

PARKING SUMMARY

Description	Required	Provided
10.0' x 20.0'	See Parking Calculations	636
9.5' x 19.0'*		1,621
9.0' x 18.0'*		167
Total Stalls	2,264.7	2,424
Loading Spaces: **	No Requirement	9
Handicap Parking: **	2% of Total	48
Land-Banked Stalls: **		259

* - Require relaxation of development standards as allowed in the site plan approval with transfer of development rights.
** - Included in The Total Provided Parking Spaces)

DIMENSIONAL REQUIREMENTS

Description	Required	Provided
Impervious Surface	75% max (1,357,425 ft²)	87.8%* (1,589,604 ft²)
Contiguous Landscape	20% min (361,980 ft²)	12.2%* (220,295 ft²)
Interior Parking Landscape (635,002.30 ft² of Parking Area)	10% min (63,500 ft²)	6.5% (41,534 ft²)
Maximum Building Height	50 ft max	TBD

* Require relaxation of development standards as allowed in the site plan approval with transfer of development rights.

PARKING CALCULATIONS

Building	Use	Area (ft²)	Parking Ratio	Stalls Req.
A	Wholesale Club			
	Retail	128,009	1 Stall per 200ft²	640.0
	Restrooms, Staircases, & Utility Rooms	3,700	Not Required	0.0
	Warehouse / Loading	11,371	1 Stall per 1,000ft² for first 5,000ft² then 1 Stall per 10,000 thereafter	6.0
	Other (Tire & lube center, Lab, Bakery, Photo Center)	12,998	1 Stall per 300ft²	43.3
	Total	156,078		689.4
B	Toy Store			
	Retail	52,289	1 Stall per 200ft²	261.4
	Restrooms, Staircases, & Utility Rooms	2,077	Not Required	0.0
	Warehouse / Loading	9,662	1 Stall per 1,000ft² for first 5,000ft² then 1 Stall per 10,000 thereafter	6.0
	Total	64,028		267.4
C	Department Store			
	Retail	79,245	1 Stall per 200ft²	396.2
	Restrooms, Staircases, & Utility Rooms	2,800	Not Required	0.0
	Warehouse / Loading	11,000	1 Stall per 1,000ft² for first 5,000ft² then 1 Stall per 10,000 thereafter	6.0
	Total	95,971		402.2
D	Furniture Store (2 Level)			
	Retail	47,606	1 Stall per 200ft²	238.0
	Restrooms, Staircases, & Utility Rooms	2,800	Not Required	0.0
	Warehouse / Loading	10,300	1 Stall per 1,000ft² for first 5,000ft² then 1 Stall per 10,000 thereafter	6.0
	Total	60,706		244.0
E	Pet Store			
	Retail	12,414	1 Stall per 200ft²	62.1
	Restrooms, Staircases, & Utility Rooms	1,117	Not Required	0.0
	Warehouse / Loading	1,605	1 Stall per 1,000ft² for first 5,000ft² then 1 Stall per 10,000 thereafter	2.0
	Other (Exam Rooms, Training Rooms, Grooming Rooms)	4,900	1 Stall per 300ft²	16.3
	Total	20,036		80.4
F	Home Goods			
	Retail	21,715	1 Stall per 200ft²	108.6
	Restrooms, Staircases, & Utility Rooms	1,300	Not Required	0.0
	Warehouse / Loading	1,800	1 Stall per 1,000ft² for first 5,000ft² then 1 Stall per 10,000 thereafter	2.0
	Total	24,815		110.6
G	Home Goods			
	Retail	33,700	1 Stall per 200ft²	168.5
	Restrooms, Staircases, & Utility Rooms	1,800	Not Required	0.0
	Warehouse / Loading	4,464	1 Stall per 1,000ft² for first 5,000ft² then 1 Stall per 10,000 thereafter	5.0
	Total	39,964		173.5
H	Craft Store			
	Retail	16,800	1 Stall per 200ft²	84.0
	Restrooms, Staircases, & Utility Rooms	1,200	Not Required	0.0
	Warehouse / Loading	2,000	1 Stall per 1,000ft² for first 5,000ft² then 1 Stall per 10,000 thereafter	2.0
	Total	20,000		86.0
I	Electronics Store			
	Retail	17,131	1 Stall per 200ft²	85.7
	Restrooms, Staircases, & Utility Rooms	1,200	Not Required	0.0
	Warehouse / Loading	2,000	1 Stall per 1,000ft² for first 5,000ft² then 1 Stall per 10,000 thereafter	2.0
	Total	20,331		87.7
J	Bank			
	Retail	3,500	1 Stall per 200ft²	17.5
	Restrooms, Staircases, & Utility Rooms	988	Not Required	0.0
	Warehouse / Loading	0	1 Stall per 1,000ft² for first 5,000ft² then 1 Stall per 10,000 thereafter	0.0
	Total	4,188		17.5
	Total Parking Stalls of Retail Buildings			2,158.7
K & L	Restaurants	318 Seats	1 Stall per 3 Seats	106.0
	Total Parking Stalls Required			2,264.7

Date	Revision	Approval By:

The Shops at Riverhead

County Road 58
Riverhead, N.Y. 11901

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Sheet By: Paul F. Sigismondi	Date: October 23rd, 2007	Scale: 1" = 50'	Dwg. No: S1 (1 of 1)
Job #: DRC 06-01	Sheet Title: Site Plan		

PLANNED EROSION AND SEDIMENTATION CONTROL PRACTICES

A. Project Description

The purpose of the project is to construct a retail destination shopping center with associated paved roadways and parking fields. Approximately 41 acres will be disturbed. The site is 41.5 acres located along Suffolk County Route 58 "C.R.58" (Old Country Road), approximately halfway between Kroemer Avenue and Commerce Drive in the Town of Riverhead (see vicinity map).

1. Site Description

The site has relatively rolling topography which was previously improved and utilized by Hazeltine Corporation. The former building was razed and the site remediated for environmental cleanup by Hazeltine Corp. prior to selling the property to the former Owner. The building's foundation and first floor slab system including parking field remain and will be removed under this project's site improvements. The remainder of the site is wooded and will be removed to allow for construction of the new destination retail center. There is no evidence of severe erosion patterns, under present site conditions. Selective saving of existing trees will be done wherever feasible along the properties perimeter with adjacent residential properties.

2. Adjacent Properties

Land use in the vicinity is a mixture of commercial, residential, industrial and land for power utilities. The land to the west has been developed for industrial purposes. Areas to the north and east are generally residential with a mix of recreation and commercial. Land to the south is a mixture of commercial and residential.

3. Soils

The site is well suited to percolate storm water intensity of greater than 2-inches. The soil beneath the site is well graded sands and gravels and will be an ideal receptor of storm water events. No groundwater problem is anticipated due to the depth to groundwater being greater than 20-feet.

B. Planned Erosion and Sedimentation Control Practices

1. Sediment Basins:

Single sediment basin will be constructed in the center of the property in the vicinity of a natural depression which spans the property in a north-south direction. All water from the 41 acre cleared site will be directed to the basin. Do to the existing grades of the site and the high porosity of the on site soils, no storm water runoff is expected to leave the site, but will percolate into the soils within the basin or the constructed diversion swales leading to the basin.

2. Temporary Construction Entrance/Exit:

a. A temporary paved construction entrance will be installed along the south boundary of the property to provide temporary access to the site from existing C.R.58. A twenty-foot wide, separate, entrance and exit road are proposed with a minimum 100-foot length. The roads will be graded to slope to the north so that storm water runoff will be directed back to the site were a land spreader will dispose of the water into subsurface soils. No truck washing will be permitted in this area.

b. The pad will be constructed of 12" minimum thickness washed, clean, crushed rock of sizes 1 ½" to 3". Mud and soils attached to construction vehicles will be removed by the stone composition of the pad. Maintanance of the pad will be provided and the soils that are removed will generally be washed into the stone during rainfall events. The purpose of this portion of the project is to construct a temporary construction entrance and exit, hereafter referred to as "entrance" to provide safe access to site as shown on the Soil Erosion and Sediment Control Plan (SW2), including a wheel cleaning pad. The entrance/exit road and wheel cleaning pad shall be in compliance with the standards and specifications of the Suffolk County Department of Public Works (SCDPW) and the Town of Riverhead.

c. The area of the entrance shall be cleared of all vegetation, roots, construction debree, stones, and all other objectionable materials.

d. The entrance shall be graded to provide a road foundation so that the entrance shall slope northerly from the existing northerly edge of pavement at C.R.58. This will allow storm runoff to drain to the on-site temporary and or permanent drainage structures.

e. The entrance and exit pavement widths shall be a minimum of 20 feet each, separated by 10 feet. The pavement shall extend a minimum of 100 feet onto the site and connect to the edge of existing C.R.58 shoulders with 25 foot radius returns.

f. The Contractor shall maintain the construction entrance through the entire construction period including daily cleaning of the road and tracking pad as required to prevent mud or sediment from leaving the construction site. Should mud or sediment be tracked or washed onto C.R.58, it shall be immediately removed.

3. Temporary Block and Crushed Rock Drop Inlet Protection:

a. Temporary block and crushed rock inlet protection shall be installed on selected new on site storm water inlets through out the site. Runoff from the site that is not directed to the proposed sediment basin or level spreaders will be directed through temporary diversions to the selected catch basins during the phase of development were the proposed drainage system is constructed.

b. All inlet structures shall be provided with temporary drop inlet protection as shown on the SWPPP.

c. Protection shall include installing two (2) rows of concrete blocks on firm, smooth foundation, excavated a minimum of 3" below the storm inlet top. Blocks shall be placed against the inlet for lateral support.

d. One (1) concrete block shall be placed on each side of the structure on its side on the bottom row of blocks to permit drainage to flow into the structure. ½" wire mesh shall be installed on the inlet side of each such block.

e. ¾" washed, crushed rock collars shall be installed around the blocks at a maximum slope of 2 horizontal to 1 vertical measurement, to within 3" of the top of the upper row of blocks (see detail).

f. All holes in the top row of concrete block shall be filled with stone.

4. Temporary Diversion:

a. Temporary diversions will be constructed on the tops and bases of all slopes, principaly along the perimeter of the site to prevent surface runoff from eroding slope embankments and to collect the runoff from the slopes and direct the runoff and sediment to level spreaders.

Temporary Block and Crushed Rock Drop Inlet Protection (cont.)

b. The Contractor shall construct at locations shown on the SWPPP temporary diversion berms of the minimum size shown on the SWPPP and/or as directed by the Engineer or as required to properly direct storm water runoff to the appropriate storage or disposal systems.

c. Prior to construction of the berms the Contractor shall removed all trees, brush, stumps and debris from the vicinity of the diversion foundation.

d. The ridges of the berms shall be constructed to the full dimensions shown on the SWPPP including a 10% allowance for compaction and settling.

e. The top of the diversion berm must be at the design grades or higher at all points along the berm.

f. The diversion berms shall be fine graded immediately after construction, seeded and mulched.

5. Level Spreaders:

a. Temporary level spreaders will be constructed at the ends of each diversion and utilized until temporary and or permanent soil stabilization is completed.The area below the spreaders will be relatively flat smooth and vegetated at a maximum slope of 4%

b. The Contractor shall construct at locations shown on the Soil Erosion and Sediment Control Plan (SW2) temporary level spreaders berms of the minimum size and lengths shown on the Soil Erosion and Sediment Control Plan (SW2) and/or as directed by the Engineer or as required to properly dispose of storm water runoff.

c. Prior to construction of the level spreaders the Contractor shall removed all trees, brush, stumps and debris from the vicinity of the spreader.

d. Level spreaders shall be constructed on undisturbed soils.

e. The cross section of the spreader shall be as shown on the SWPPP and the spreader lips shall be level throughout their lengths.

f. Transition section shall be constructed from the diversion to blend smoothly to the width and depth of the spreader.

g. Immediately after construction of the spreader, the Contractor shall seed and mulch the entire disturbed spreader area as provided for in the vegetative plan.

6. Tree Preservation and Protection:

a. The nature of the site and the proposed development of the site is not conducive to preservation of trees. The existing trees are of little value and consist mostly of scrub oak and pine trees.

7. Land Grading:

a. Almost the entire site will be regraded. The general flat to slightly sloped area of the site and the highly permeable sandy soils reduce the overall erosion potential.

b. All cut slopes will be 3 on 1 or flatter to avoid instability and to provide vegetated slopes that can be properly mowed and maintained. Cut slopes will be fine graded immediately after rough grading. Either topsoil will be provided or the area hydro-seeded and mulched, or mulched seed mats may be installed on the slopes in accordance with the Vegetative Plan.

c. Filled slopes will also be 3 on 1 or flatter, with fill depths varying from a few feet to as much as 7 feet at the property lines. Fill will be placed in not to exceed 12" depths and compacted. Detail compaction specifications will be included in the overall site development plan and are not part of the Soil Erosion and Sediment Control Plan (SW2).

8. Clearing, Grubbing and Land Grading:

a. The Contractor shall furnish all labor equipment and supplies required to clear, grub and grade the project site to the approximate rough grades shown on the SWPPP and or the final Site Development Plan (SW1). The intent of the project is to balance cuts and fills within the boundaries of the property, if possible to eliminate or minimize the quanty of material required to be removed or imported to the site.

b. Slopes shall be cut to a 3 on 1 or flatter slope unless otherwise noted on the SWPPP or Site Development Plan (SW1). All slopes shall be contoured to provide for maintenance by mowing and roughened for permanent vegetative establishment.

c. Grading in the vicinity of the property lines shall be performed in such a manner so as not to disturb adjacent properties (unless a temporary construction easement is obtained) and not to discharge any storm water or sediment, silt, sand etc. Off of the project site. Where shown on the SWPPP the Contractor shall provide silt fences and diversion swales to intercept storm water and sediment.

d. In general, the project site does not contain any significant amount of top soil or loam. Therefore, unless otherwise directed the Contractor will not be required to strip and stockpile topsoil on site. Existing silt or clay deposits and unsuitable soils if encountered are to be stripped or excavated and utilitized as fill materials in areas of the site were structures, utilities or pavements are not to be constructed.

e. Existing concrete, masonry, asphalt materials located in certain areas of the site are to be excavated and moved to a designated location on the site where then will be crushed into suitable aggregate for use as a pavement subbase.

f. Fill is to be placed in layers not to exceed 12" and compacted at optimum moisture content with compaction equipment as required in the specifications for the Site Development Plan (SW1). Compaction specifications and requirements are not a part of the SWPPP.

g. Frozen, compressible, organic, soft materials shall not be used as fill materials.

h. Fill will not be permitted to be installed on frozen surfaces.

i. Diversion swales and or berms shall be installed above cuts prior to land clearing and grading.

j. Diversion swales and or berms shall be maintained at all times above fill sections to prevent overflow on to steep slopes or adjacent properties.

k. Cutting and filling will be done in a continuous operation until final grades are reached. If grading is temporarily discontinued, temporary diversions shall be constructed were required to contain runoff and sediment discharge to the general area of the disturbance.

Clearing, Grubbing and Land Grading: (cont.)

l. Temporary diversions may be required to be constructed as final pavement grades are constructed.

m. Temporary sediment and erosion control measures shall be maintained until the site has been properly permanently stablized. Upon completion of the permanent stabilization, all temporary erosion and sediment control measures shall be removed and disturbed areas graded, were necessary, to blend with the surrounding area and new landscaping.

9. Sediment/Silt Fencing:

a. The Contractor shall, prior to the start of any land disturbance such as clearing, grubbing, excavation, filling or grading, furnish and install temporary silt fencing at locations shown on the SWPPP and for site development pane and at any other location required to contain sediment within the project site during construction.

b. Sediment fencing shall be provided on the down gradient or low side of any temporary soil stockpile areas and at the base of any filled or cut areas to prevent sediment from being washed into drainage structures, or off site to adjacent prosperities.

c. Fence posts shall be provided downslope of the filter fabric of the fence, to provide for proper support of the fence. Posts are to be a minimum of 4" diameter pine with a minimum length of 4 feet.

d. The bottom of the fence fabric shall be anchored in a minimum of 6" of soil at the base of the fence to prevent undercutting.

e. Where necessary joints or splices in the fabric can be provided were necessary by securing the fabric at a fence post, and then overlapping the second piece of fabric to the previous fence post.

f. Filter fence fabric shall be of polyester, propylene or ethylene yarn with extra strength (min 50 lb/lin. Inch) and with a flow rate of at least 0.3 $gal/ft^2/minute$. Fabric should contain ultraviolet ray inhibitors and stabilizers.

10. Temporary Sediment Traps/Scour Holes:

a. The Contractor shall construct at locations shown on the SWPPP temporary sediment traps and or scour holes of the minimum size and lengths shown on the SWPPP and/or as directed by the Engineer or as required to properly dispose of storm water runoff and retain sediment.

b. Prior to construction of the sediment traps or scour holes the Contractor shall removed all trees, brush, stumps and debree from the vicinity of the traps or holes.

c. All fill required shall be free of roots, woody vegetation and organic matter. Fill shall be placed in 12" compacted lifts.

d. Inlets shall be protected against erosion with properly sized riprap.

e. Stablize the embankments and all disturbed areas above the traps or holes as specified in the Vegetative Plan.

VEHICLE STORAGE/VEHICLE MAINTENANCE AND SPILL CONTAINMENT PLAN

1. Prior to commencement of construction and in conjunction with the construction of the temporary construction entrance and exit driveways, the Site Contractor shall construct a paved, adequate sized, construction vehicle storage and maintenance pad, suitable to park and maintain all the vehicles to be utilized on site during construction. The pad shall be constructed of bituminous asphalt with a minimum thickness of 4 inches, constructed on 12" of RCA subbase. The pad shall be surrounded by a 12-inch high asphalt berm. The pad shall be sloped to drain to a 5,000 gallon, below grade, precast concrete oil/water separator, the outlet of which shall be connected to the proposed on-site Retention Basin #2.

2. The site contractor shall also construct a 150 square foot paved and bermed spill containment pad, for use as temporary storage of hazardous materials, which may occur from accidental spills on the site during construction progress. The pad shall be provided with berm walls, suitable in height, to contain 150% of the effective volume of the pad, which shall be equal to 45 cubic feet.

3. Site will be checked periodically for the presence of any significant spillage of motor fuels, lubricants, hydraulic fluids and other materials that may have been accidentally discharged onto the site as a result of construction activities.

4. The on-site construction manager must be notified of any spill, and who in turn, report the spill to the NYSDEC, as required by the environmental laws of the State of New York.

5. Immediate and appropriate action must be taken to contain any spill, to include; applying absorbent materials, if the spill is located on paved areas; or, excavation of all contaminated soils, if the spill is located on surface soils within the site. Excavated materials, if of a small quantity, shall be placed in special containment drums, which shall be sealed and placed on the pre-constructed impervous containment pad for immediate removal and disposal by a NYSDEC approved, hazardous waste disposal firm. If the volume of soil exceeds one cubic yard the material shall be excavated and deposited on the containment pad and covered with two layers of 6 mil plastic, for immediate removal from the site by the hazardous waste hauler. Any spill, resulting in contaminated materials greater than the capacity of the on site containment pad, shall be excavated and removed from the site by the NYSDEC licenced, hazardous waste removal firm.

6. The vehicle maintenance and storage and containment pad shall be maintained throughout the construction phase, where shown on the plans.

7. No construction vehicle maintenance is to be performed on-site, except in the designated impervious maintanance and vehicle storage pad, shown on the plan.

CONSTRUCTION SCHEDULE

1. The Owner will contact adjacent property Owners to discuss and obtain temporary construction easements in areas were retaining walls maybe required, as shown on the Site Development Plan (SW1).

2. The Owner shall obtain approval of all required Town of Riverhead, Suffolk County, New York State departments of Health and Environmental Conservation approvals and related permits, prior to construction operations.

3. The surveyor for the Owner will arrange to have all property lines, entrance roads staked and flagged, including installation of grade stakes for the use of the Contractor in constructing the site improvements. A pre-construction conference with various site Contractors shall be held at least one week prior to construction, at which all Contractors will be explained the required measures to be taken in order to comply with the approved SWPPP.

4. Clearing, grubbing, grading and paving of the construction entrance and the construction of the crushed stone "Wheel Cleaning Pad" including the vehicle storage and maintain areas, shall be the first construction activities.

5. Clearing and grubbing the existing property lines and installation of required silt/sediment fencing will be the second construction activity.

6. Next, the existing natural depression in the center of the site will be partially fill and reshaped to provide an overall site sedimentation basin.

7. Next, level spreader areas will be constructed and contoured at the ends of the proposed swales and diversions in the vicinity of the proposed slopes at the perimeter of the property.

8. Next, temporary diversions shall be constructed above and at the bases of specific cuts and fills proposed along certain property lines, including connecting these diversions to the preconstructed and stabilized level spreader areas. Included in this work will be vegetating all areas disturbed by this construction. Diversion swales will not be necessary around proposed structures as grades within the site will be generally flat.

9. Site Contractor shall commence regrading the site in a pattern that will be dictated by construction sequence of the structures and site utilities. Runoff during site clearing is not expected to be significant due to the porosity of the site soils (which are generally sands and gravels). Any runoff during clearing and grading operations will be retained on site and diverted to the sedimentation basin at the center of the site.

10. Site Contractor shall complete rough grading of the entire site including stock piling any on site loam or topsoil (if any). Commence installation of on site drainage systems, water and sewer systems. As inlets are constructed, they shall be protected with crushed rock and concrete block sediment protection, as shown.

11. Next, construction of building foundations and super structures shall commence.

12. Next, commence final grading of selected portions of the site as utilities and drainage systems and building foundations are completed.

13. Complete installation of site improvements.

14. Complete final grading of parking area.

15. Complete permanent restoration of landscaped areas of site.

16. Inspect erosion and sediment control practices weekly and after rainfall events. Make needed repairs immediately, if necessary or directed by the Engineer.

17. After completion of final restoration and the site is stabilized, remove all remaining temporary measures and install permanent vegetation on disturbed landscaped areas.

18. The estimated time before final site stabilization is 16 months.

MAINTENANCE PLAN

1. All erosion and sediment control practices will be checked for stability and operation following every significant runoff producing event (precipitation volume of 1" or more with durations less than 24 hours). The site will be checked for compliance with the SWPPP once per month by the Engineer of record. Any needed repairs will be made within 24 hours of notice to the Site Contractor.

2. Sedimentation basins or scour holes will be cleaned when the level of sediment reaches accumulates to 18" above the original bottom of the basin or hole.

3. Sediment will be removed from all sediment traps and block and stone inlet protection devices when the storage capacity behind these devices is reduced by more than 50%.

4. Sediment will be removed from behind sediment fences when it accumulates to 6 inches or more at the base of the fence. Sediment fencing shall be inspected and repaired and or re-supported as required to insure a continuous sediment barrier.

5. All stabilized seeded areas and stabilized slopes are to be inspected daily by the Contractor. All areas shall be continuously maintained during construction, to include daily inspection, periodic watering and mowing and where necessary re-seeded, fertilized and mulched, in accordance with the approved Vegetative Pan. The Site Contractor will be responsible to maintain a vigorous, healthy dense cover of all exposed areas specified on the SWPPP which are to be vegetated. This includes and is generally limited to, all slopes, swales, temporary diversions, land spreaders and other areas specified by the Engineer.

VEGETATIVE PLAN

A. Seedbed Preparation & Temporary Slope Stabilization:

1. All fill or cut slopes are to be immediately stabilized with either temporary seeding, hydraulic seeder (hydro-seeding). The method to be used will depend on locations of the slopes, the time of the year and the construction sequencing of the installation of retaining wall concrete curbs, etc.

2. In general fill and cut slopes are to be constructed with slopes of 3:1 or flatter.

3. Slopes shall be rough graded to the specified slopes shown on the site development and or Soil Erosion and Sediment Control Plan (SW2).

4. Remove all rocks and debris as required to permit the slope to be fine graded to a contour to permit future mowing and proper and safe maintenance.

5. Apply lime and fertilizer to the soil at rates recommended by soil testing, spread evenly and incorporate to a depth of 2 to 4 inches with a farm disk or soil tiller.

6. Loosen the substrate immediately prior to spreading topsoil by disking or scarifying to a depth of at least 2 inches.

7. Disk or till and rake to produce a uniform and well-pulverized surfaces.

8. Loosen surface prior to applying seed.

B. Seedbed Preparation & Permanent Slope Stabilization and Other Vegetated Areas:

1. Remove all rocks and debris as required to permit the slope to be fine graded to a contour to permit future mowing and proper and safe maintenance.

2. Apply lime and fertilizer to the soil at rates recommended by soil testing, spread evenly and incorporate to a depth of 2 to 4 inches with a farm disk or soil tiller.

3. Loosen the substrate immediately prior to spreading topsoil by disking or scarifying to a depth of at least 2 inches.

4. Spread loam/topsoil either from the site is any or import topsoil as required to a depth of 4 inches.

5. Disk or till and rake to produce uniform and well-pulverized surfaces.

6. Loosen surface prior to applying seed.

C. Seeding Methods:

1. Temporary Seeding:

a. Broadcast seed of the types and rates as recommended for the various seasons of the year indicated below with a rotary seeder, drop spreader.

Spring: Rye @ 120 lbs./acre plus Kobe Lespedeza @ 50 lbs./acre

Summer: German Millet @ 40 lbs./acre

Fall & Winter: Rye @ 150 lbs./acre plus Kobe Lespedeza @ 75 lbs./acre

b. Rake seed into soil and lightly pack to establish good contact with a light landscape roller or tamper.

c. Water lightly immediately after seeding at rate sufficient to support germination but not strong enough to cause erosion of the slopes or to move seeds.

2. Permanent Seeding:

a. Broadcast seed of the types and rates as recommended for the various seasons of the year indicated below with a rotary seeder, drop spreader.

Spring or fall: Rye @ 40 lbs./acre plus Tall Fescue @ 100 lbs./acre plus Winston or Alpha Blue Grass @ 40 lbs./acre.

b. Rake seed into soil and lightly pack to establish good contact with a light landscape roller or tamper.

c. Water lightly immediately after seeding at rate sufficient to support germination but not strong enough to cause erosion of the slopes or to move seeds. Water weekly as required at a minimum rate of ½ to 1" of combined water (irrigation plus rainfall/week). Continue irrigation until first mowing).

D. Mulch

1. Temporary Seeding:

a. Apply 90 lbs./1,000 square feet of grain straw and tack with a minimum of 0.1 gals./square yard asphalt (11 gals/1,000 square feet)

2. Permanent Seeding:

a. In mid-summer, late fall or winter, apply 100 lbs./1,000 square feet of grain straw, cover with netting and staple to slope areas.

b. In spring (march, April and may) or fall (september, October and November) use 45 lbs./1,000 square feet wood fiber in a hydro seeder slurry.

E. Maintenance - Temporary and Permanent Seeded Areas:

1. Refertilize in early spring and early fall of each year during construction at a rate of 80 lbs./acre of nitrogen using 50% 10-6-4 organic fertilizer.

2. Lime in early spring and early fall of each year during construction at a minimum rate of 500 lbs./acre of granular limestone.

3. Keep all areas mowed to a height of 2 to 3 inches.

4. Inspect and repair mulch and lining.

5. Top-dress seeded areas and slopes with 10-10-10 50% organic fertilizer where growth is not fully adequate

6. Top-dress with 50 lbs./acre (1 lbs./1,000 square feet nitrogen (10-6-4 50% organic) fertilizer in march. If cover is required through the summer, overseed with 50 lbs. Kobe lespedeza.

Date	Revision	Approval By:

STATE OF NEW YORK · ELIAS S. KALOGERAS · No. 042176 · LICENSED PROFESSIONAL ENGINEER

UNAUTHORIZED ALTERATION OR ADDITION TO THIS DRAWING AND RELATED DOCUMENTS IS A VIOLATION OF SEC. 7209 OF THE N.Y.S. EDUCATION LAW

The Shops at Riverhead
County Road 58
Riverhead, N.Y. 11901

E.S. KALOGERAS, P.E
Consulting Engineer
UNION SQUARE, 727 UNION AVENUE, RIVERHEAD NEW YORK, 11901
TEL: (631) 722-4040 FAX: (631) 722-4004
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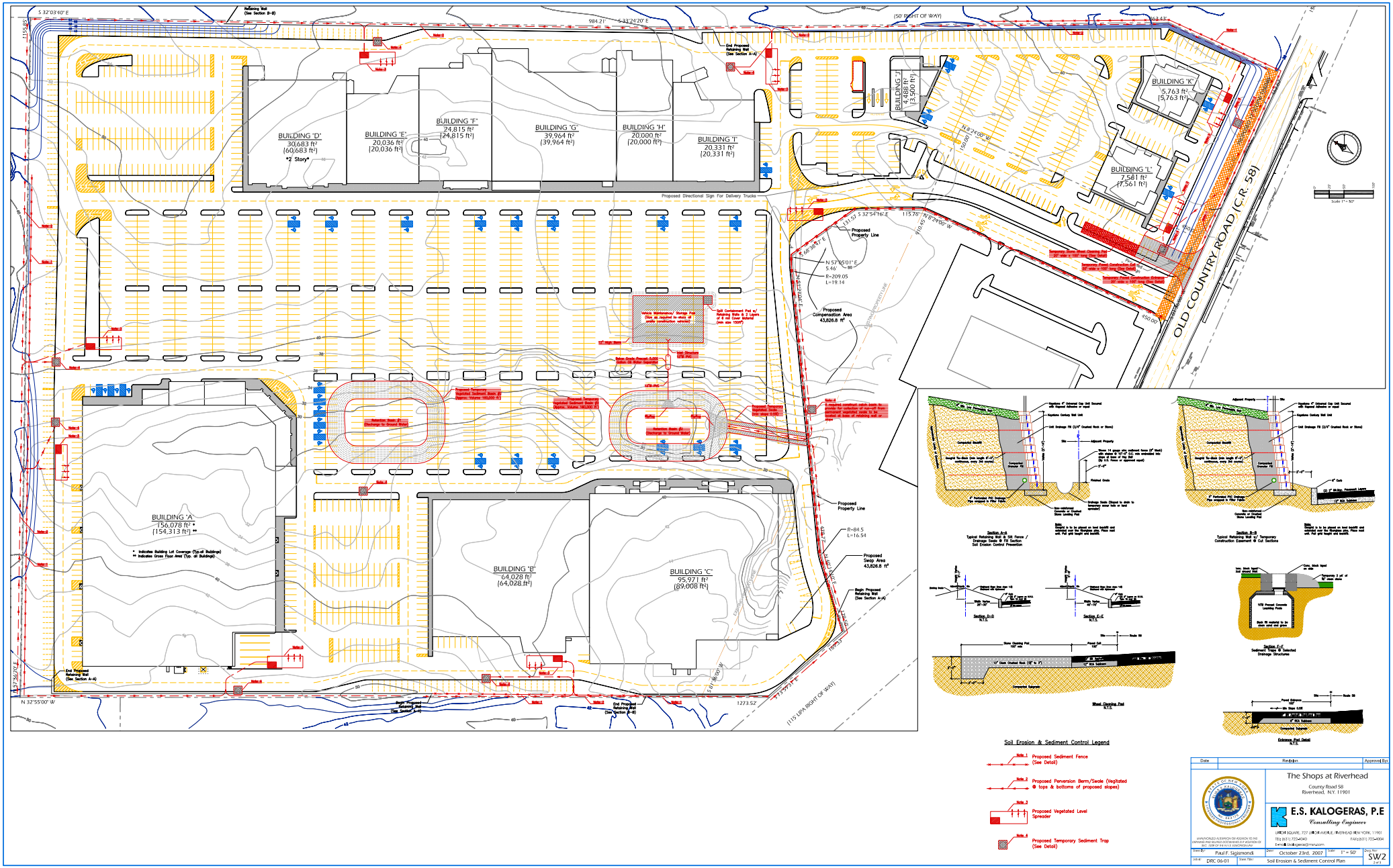
Sheet By: Paul F. Sigismondi	Date: October 23rd, 2007	Scale: None	Dwg. No: SW3 3 of 3
Job #: DRC 06-01	Sheet Title: Soil Erosion & Sediment Control Notes		



Soil Erosion & Sediment Control Legend

- Note 1 — Proposed Sediment Fence (See Detail)
- Note 2 — Proposed Perversion Berm/Swale (Vegitated @ tops & bottoms of proposed slopes)
- Note 3 — Proposed Vegetated Level Spreader
- Note 4 — Proposed Temporary Sediment Trap (See Detail)

Date	Revision	Approved By

The Shops at Riverhead

County Road 58
Riverhead, N.Y. 11901

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Consulting Engineer
LUTCH SQUARE, 727 LUTCH AVENUE, RIVERHEAD NEW YORK, 11901
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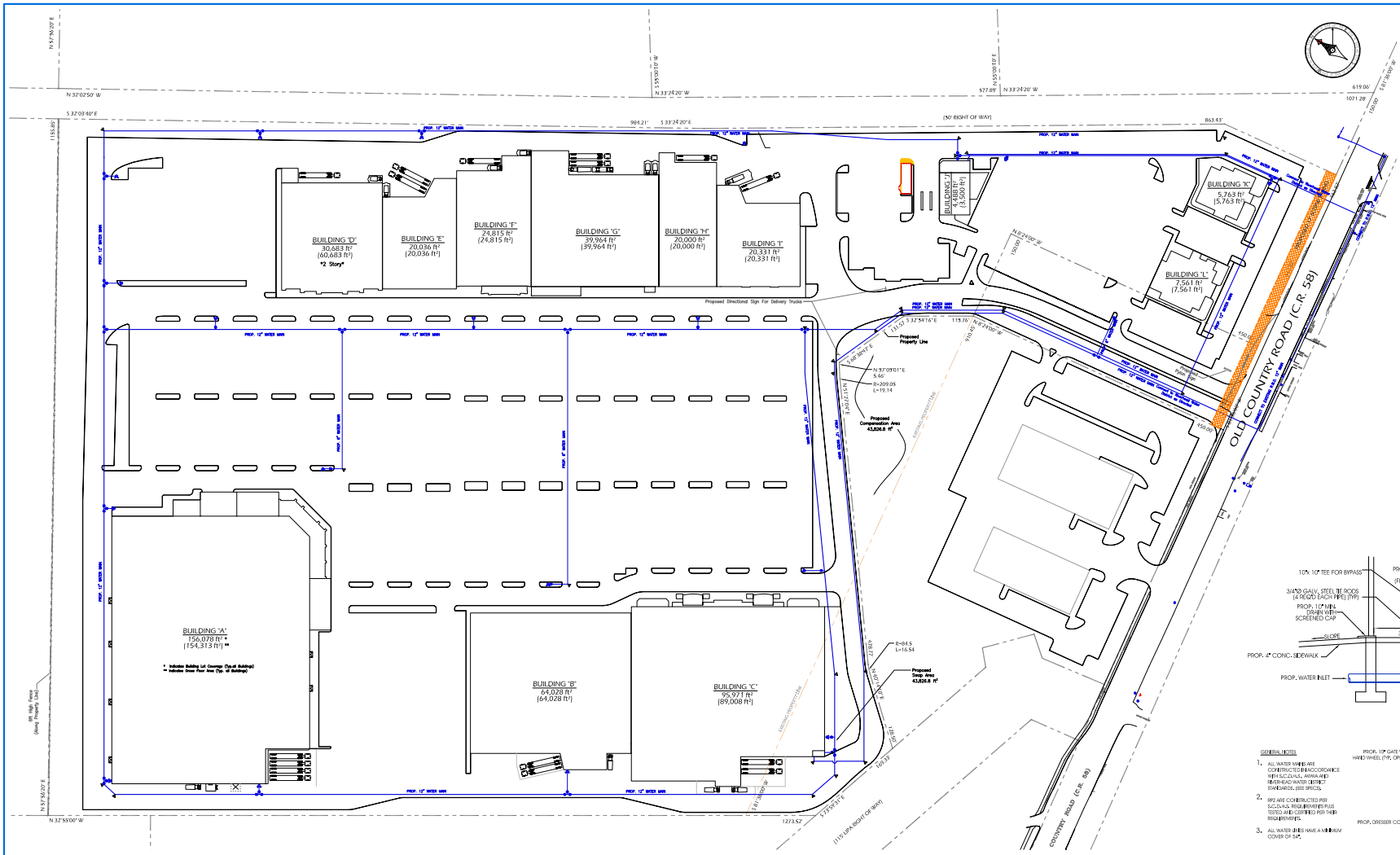
Drawn By: Paul F. Sgiarondi	Date: October 23rd, 2007	Scale: 1" = 50'	Drg. No: SW2
Job #: DRC 06-01	Sheet Title: Soil Erosion & Sediment Control Plan		Sheet 2



GENERAL INFORMATION

Location of Site: Town of Riverhead, Suffolk County
Access: County Road 58 and Kroemer Avenue in the Town of Riverhead

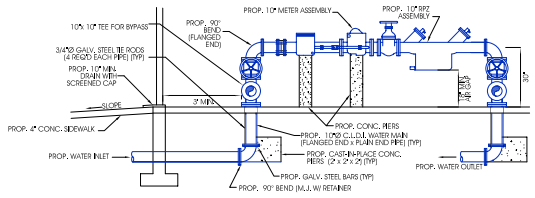
Suffolk County Tax Map Numbers:	600-101-01-03 & 600-119-01-06		
Zoning District:	DRC (Destination Retail Center)		
Area Data:	600-101-01-⅔ 03	= 1,698,573.66ft²	(38.99 Acres)
	600-119-01-06	= 67,500.00 ft²	(1.55 Acres)
	600-119-01-⅔ 5.1	= 43,826.80 ft²	(1.01 Acres)
	Total Site Area	= 1,809,900.46ft²	(41.55 Acres)

Survey information taken from survey done by:
Joseph Ingegno, Land Surveyor (Dated 12-18-2006)

Basis of Design of Sanitary Sewer System

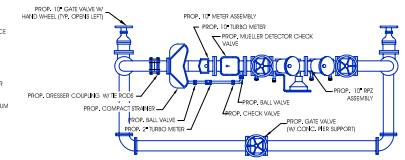
Proposed Design Flow (Based On Building Use):

Dry Store: (Bldg.'s A-J)	506,417 ft² X 0.03 gpd / Total ft²	=	15,193 gpd
Restaurant: (Bldg. K & L)	318 Seats X 30 gpd / Seat	=	9,540 gpd
Total Design Flow		=	24,733 gpd

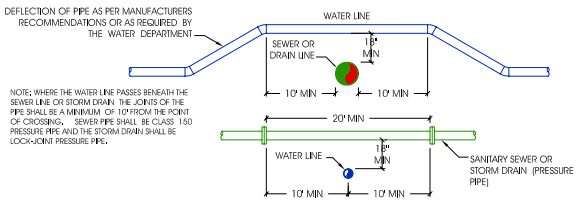


GENERAL NOTES:

1. ALL WATER MAINS ARE CONSTRUCTED IN ACCORDANCE WITH S.C.D.W.A., AWWA AND RIVERHEAD WATER DISTRICT STANDARDS. (SEE SPECS.)
2. RPZ ARE CONSTRUCTED PER S.C.D.W.A. REQUIREMENTS PLUS TESTED AND CERTIFIED PER THEIR REQUIREMENTS.
3. ALL WATER LINES HAVE A MINIMUM COVER OF 54".

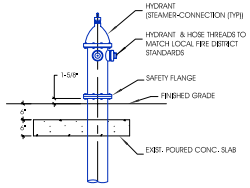


RPZ & METER INSTALLATION
(NO SCALE)

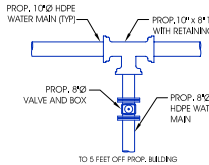


NOTE: WHERE THE WATER LINE PASSES BENEATH THE SEWER LINE OR STORM DRAIN THE JOINTS OF THE PIPE SHALL BE A MINIMUM OF 10' FROM THE POINT OF CROSSING. SEWER PIPE SHALL BE CLASS 150 PRESSURE PIPE AND THE STORM DRAIN SHALL BE LOCK-JOINT PRESSURE PIPE.

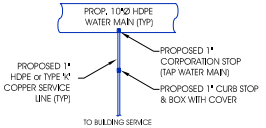
CROSSING OF WATER LINE OVER/UNDER SANITARY SEWER OR STORM DRAIN
NOT TO SCALE



FIRE HYDRANT DETAIL
(NO SCALE)



TYPICAL FIRE SERVICE LINE
(NO SCALE)



TYPICAL WATER SERVICE LINE DETAIL
(NO SCALE)

Date	Revision	Approval By:

STATE OF NEW YORK · ELIAS S. KALOGERAS · No. 042115 · REGISTERED PROFESSIONAL ENGINEER

UNAUTHORIZED ALTERATION OR ADDITION TO THIS DRAWING AND REVISED DOCUMENTS IS A VIOLATION OF SEC. 7209 OF THE N.Y.S. EDUCATION LAW

The Shops at Riverhead

County Road 58
Riverhead, N.Y. 11901

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E-mail: kalogeras@msn.com

Sheet By:	Paul F. Sigismondi	Date:	October 23rd, 2007	Scale: 1" = 80'	Dwg. No: U3
Job #:	DRC 06-01	Sheet Title:	Water Supply Plan		3 of 5

PARKING SUMMARY

Description	Required	Provided
10.0' x 20.0'	See Parking Calculations	636
9.5' x 19.0'*		1,461
9.0' x 18.0'*		167
Total Stalls	2,264	2,264
Loading Spaces: **	No Requirement	9
Handicap Parking: **	2% of Total (45.2)	46
Land-Banked Stalls: **		165

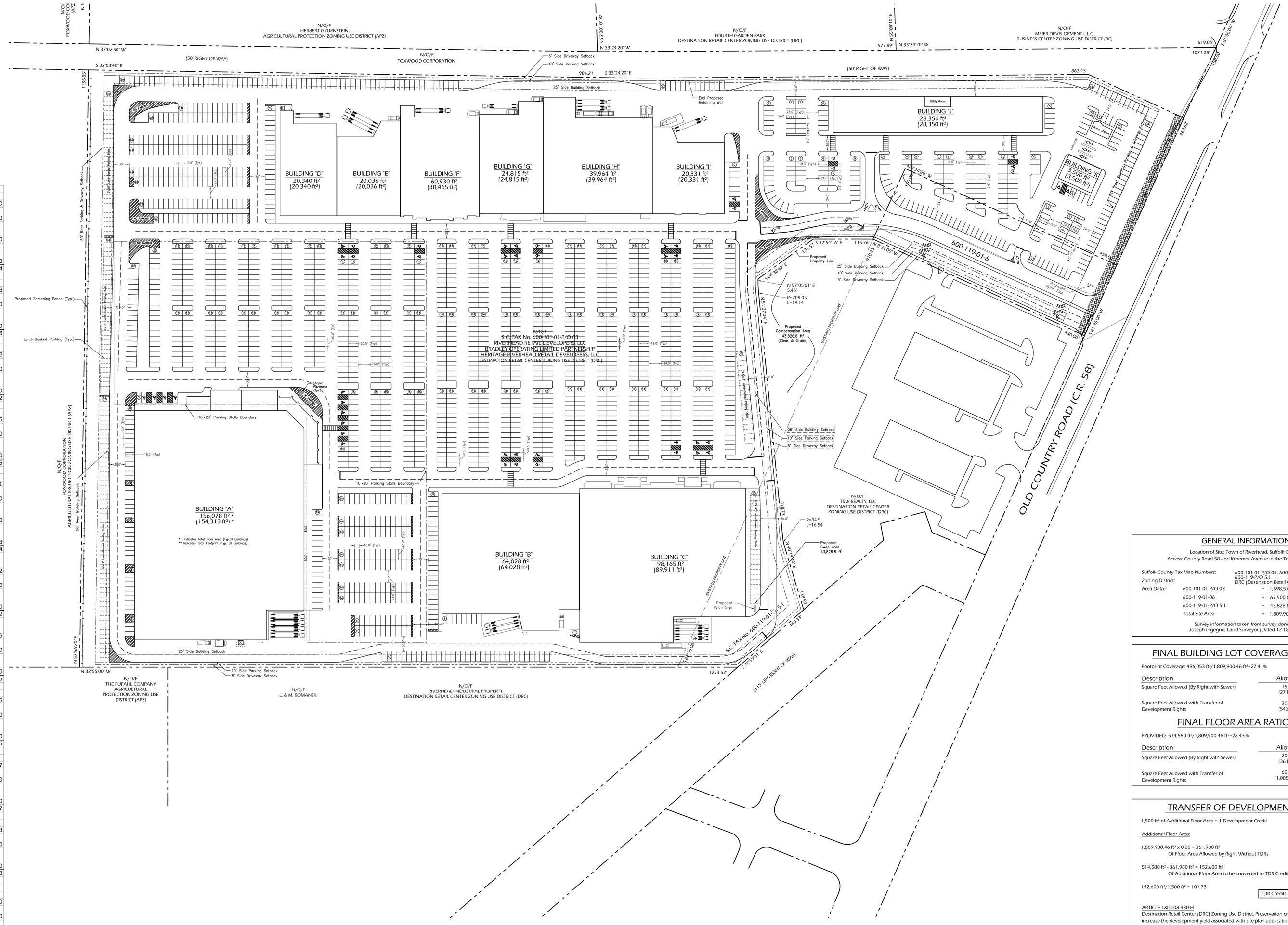
* - Require relaxation of development standards as allowed in the site plan approval with transfer of development rights.

** - Included In The Total Provided Parking Spaces)

PARKING CALCULATIONS

Building	Use	Square Feet	Parking Ratio	Required Parking
A	Retail Store			
	Retail	128,009	1 stall per 200 sf	640.0
	Restrooms, staircases, utility rooms	3,700	Not required	0.0
	Warehouse/Loading	11,371	1 stall per 1,000 square feet for first 5,000 sf and 1 stall per 10,000 thereafter	6.0
	Other (Tire & lube center, Lab, Bakery, Photo Center.	12,998	1 stall per 300 square feet	43.3
	Total	156,078	Square Feet	689.4
B	Retail Store			
	Retail	51,928	1 stall per 200 sf	259.6
	Restrooms, staircases, utility rooms	2,100	Not required	0.0
	Warehouse/Loading	10,000	1 stall per 1,000 square feet for first 5,000 sf and 1 stall per 10,000 thereafter	6.0
	Total	64,028	Square Feet	265.6
C	Retail Store			
	Retail	79,245	1 stall per 200 sf	396.2
	Restrooms, staircases, utility rooms	2,800	Not required	0.0
	Warehouse/Loading	16,120	1 stall per 1,000 square feet for first 5,000 sf and 1 stall per 10,000 thereafter	7.0
	Total	98,165	Square Feet	403.2
D	Retail Store			
	Retail	17,300	1 stall per 200 sf	86.5
	Restrooms, staircases, utility rooms	1,040	Not required	0.0
	Warehouse/Loading	2,000	1 stall per 1,000 square feet for first 5,000 sf and 1 stall per 10,000 thereafter	2.0
	Total	20,340	Square Feet	88.5
E	Retail Store			
	Retail	12,414	1 stall per 200 sf	62.1
	Restrooms, staircases, utility rooms	1,117	Not required	0.0
	Warehouse/Loading	1,605	1 stall per 1,000 square feet for first 5,000 sf and 1 stall per 10,000 thereafter	2.0
	Other (Exam Rooms, Training Rooms, Grooming Rooms)	4,900	1stall per 300 square feet	16.3
	Total	20,036	Square Feet	80.4
F	Furniture Store			
	Retail	47630	1 stall per 200 sf	238.2
	Restrooms, staircases, utility rooms	2600	Not required	0.0
	Warehouse/Loading	10700	1 stall per 1,000 square feet for first 5,000 sf and 1 stall per 10,000 thereafter	6.0
	Total	60,930	Square Feet	244.2
G	Retail Store			
	Retail	21,515	1 stall per 200 sf	107.6
	Restrooms, staircases, utility rooms	1,300	Not required	0.0
	Warehouse/Loading	2,000	1 stall per 1,000 square feet for first 5,000 sf and 1 stall per 10,000 thereafter	2.0
	Total	24,815	Square Feet	109.6
H	Retail Store			
	Retail	33,700	1 stall per 200 sf	168.5
	Restrooms, staircases, utility rooms	1,800	Not required	0.0
	Warehouse/Loading	4,464	1 stall per 1,000 square feet for first 5,000 sf and 1 stall per 10,000 thereafter	5.0
	Total	39,964	Square Feet	173.5
I	Retail Store			
	Retail	17,131	1 stall per 200 sf	85.7
	Restrooms, staircases, utility rooms	1,200	Not required	0.0
	Warehouse/Loading	2,000	1 stall per 1,000 square feet for first 5,000 sf and 1 stall per 10,000 thereafter	2.0
	Total	20,331	Square Feet	87.7
J	Small Retail Stores			
	Retail	20,750	1 stall per 200 sf	103.8
	Restrooms, staircases, utility rooms	3,600	Not required	0.0
	Warehouse/Loading	4,000	1 stall per 1,000 square feet for first 5,000 sf and 1 stall per 10,000 thereafter	4.0
	Total	28,350	Square Feet	107.8
K	Bank			
	Retail	2,800	1 stall per 200 sf	14.0
	Restrooms, staircases, utility rooms	700	Not required	0.0
	Warehouse/Loading	0	1 stall per 1,000 square feet for first 5,000 sf and 1 stall per 10,000 thereafter	0.0
	Total	3,500	Square Feet	14.0
	Total Floor Space	**536,537**	**Total Stalls Required**	**2,264**
	Excluded Space*	21,957		
	Gross Floor Area	**514,580**		

* Floor space used for mechanical equipment, building maintenance, elevators, HVAC, required staircases, public restrooms & off-street loading.



GENERAL INFORMATION

Location of Site: Town of Riverhead, Suffolk County
Access: County Road 58 and Kroemer Avenue in the Town of Riverhead

Suffolk County Tax Map Numbers:	600-101-01-P/O 03, 600-119-01-06 & 600-119-P/O 5.1		
Zoning District:	DRC (Destination Retail Center)		
Area Data:	600-101-01-P/O 03	= 1,698,573.66ft²	(38.99 Acres)
	600-119-01-06	= 67,500.00 ft²	(1.55 Acres)
	600-119-01-P/O 5.1	= 43,826.80 ft²	(1.01 Acres)
	Total Site Area	= 1,809,900.46ft²	(41.55 Acres)

Survey information taken from survey done by:
Joseph Ingegno, Land Surveyor (Dated 12-18-2006)

FINAL BUILDING LOT COVERAGE (Footprint)

Footprint Coverage: 496,053 ft²/1,809,900.46 ft²=27.41%

Description	Allowed	Provided
Square Feet Allowed (By Right with Sewer)	15.00 % (271,485)	27.41 % (496,053)
Square Feet Allowed with Transfer of Development Rights	30.00 % (542,970)	27.41 % (496,053)

FINAL FLOOR AREA RATIO (FAR)

PROVIDED: 514,580 ft²/1,809,900.46 ft²=28.43%

Description	Allowed	Provided
Square Feet Allowed (By Right with Sewer)	20.00 % (361,980)	28.43 % (514,580)
Square Feet Allowed with Transfer of Development Rights	60.00 % (1,085,940)	28.43 % (514,580)

TRANSFER OF DEVELOPMENT RIGHTS

1,500 ft² of Additional Floor Area = 1 Development Credit

Additional Floor Area:

1,809,900.46 ft² x 0.20 = 361,980 ft²
Of Floor Area Allowed by Right Without TDRs — 361,980 ft²

514,580 ft² - 361,980 ft² = 152,600 ft²
Of Additional Floor Area to be converted to TDR Credits — 152,600 ft²

152,600 ft²/1,500 ft² = 101.73

TDR Credits Required 101.73

ARTICLE LXII, 108-330-H
Destination Retail Center (DRC) Zoning Use District. Preservation credits may be used to increase the development yield associated with site plan applications made to the Town Board pursuant to Article XXVI of the Riverhead Zoning Ordinance. In its review and approval of such site plan applications, the Town Board may increase the allowable development yield at a rate of an additional 1,500 square feet of floor area per preservation credit redeemed to a maximum of 0.3 floor area ratio.

BUILDING AREA

Building	Buliding Use	Building Lot Coverage*	Gross Floor Area**
A	Retail Store	154,313 ft²	152,378 ft²
B	Retail Store	64,028 ft²	61,928 ft²
C	Retail Store	89,911 ft²	95,365 ft²
D	Retail Store	20,340 ft²	19,300 ft²
E	Retail Store	20,036 ft²	18,919 ft²
F	Furniture Store	30,465 ft²	58,330 ft²
G	Retail Store	24,815 ft²	23,515 ft²
H	Retail Store	39,964 ft²	38,164 ft²
I	Retail Store	20,331 ft²	19,133 ft²
J	Small Retail Store	28,350 ft²	24,750 ft²
K	Bank	3,500 ft²	2,800 ft²
Total 11		496,053 ft²	514,580 ft²

* Building measured to exterior walls.

** Total Floor Area minus floor space used for public restrooms, stairways, elevators, mechanical equipment and maintenance rooms.

DRC ZONING SETBACK REQUIREMENTS

Description		Required	Provided
Front Yard	(Building)	50 ft	103.00 ft
Rear Yard	(Building)	50 ft	99.00 ft
Side Yard-R	(Building)	25 ft	38.70 ft
Side Yard-L	(Building)	25 ft	48.20 ft
Front Yard	(Driveway)	50 ft	69.50 ft
Rear Yard	(Driveway)	30 ft	49.50 ft
Side Yard-R	(Driveway)	5 ft	6.00 ft
Side Yard-L	(Driveway)	5 ft	10.00 ft
Front Yard	(Parking)	50 ft	50.00 ft
Rear Yard	(Parking)	30 ft	30.00 ft
Side Yard-R	(Parking)	10 ft	10.00 ft
Side Yard-L	(Parking)	10 ft	11.00 ft

DIMENSIONAL REQUIREMENTS

Description	Required	Provided
Impervious Surface	75% max (1,357,425 ft²)	88.3%* (1,598,772 ft²)
Contiguous Landscape	20% min (361,980 ft²)	7.4%* (134,525 ft²)
Interior Parking Landscape	10% min** (64182 ft²)	10.8%** (69,345ft²)
Maximum Building Height	50 ft max	TBD

* Require relaxation of development standards as allowed in the site plan approval with transfer of development rights.

** Percent of interior parking areas only.

GreenbergFarrow
280 Bridge Street, Suite 100
Boston, MA 02026
t: 781 329 6866 f: 781 407 9035

THE SHOPS AT RIVERHEAD
OLD COUNTRY ROAD (RTE 58) & MILL ROAD, RIVERHEAD, NY
DEVELOPERS REALTY CORPORATION
20060298.2

ALTERNATIVE SITE PLAN
SCALE: 1"=80'-0"
DRAWING-1.0

10/15/07

PARKING SUMMARY

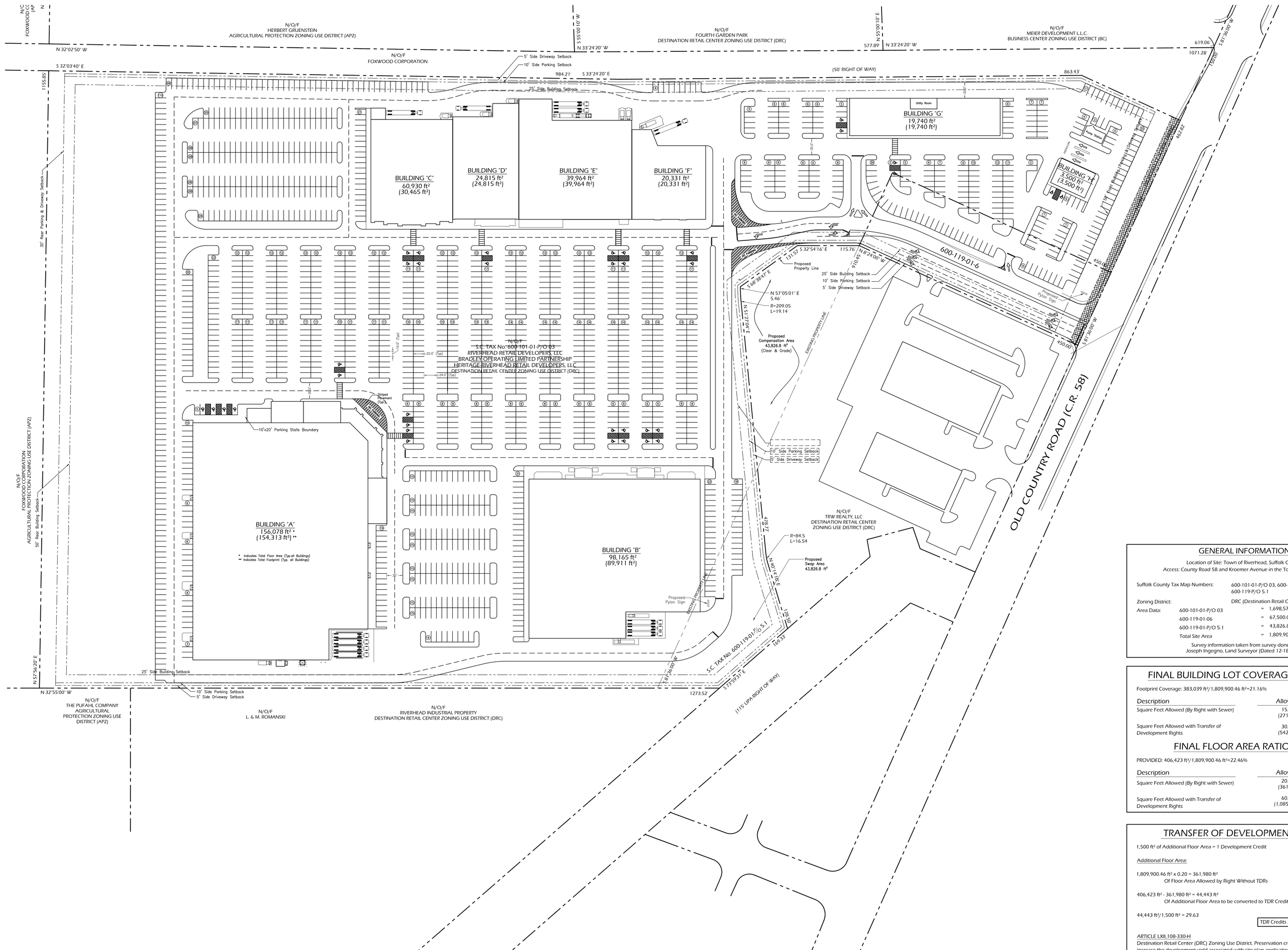
Description	Required	Provided
10.0' x 20.0'	See Parking Calculations	1,794
Total Stalls	1,794	1,794
Handicap Parking: **	2% of Total (35.9)	36

** - Included In The Total Provided Parking Spaces)

PARKING CALCULATIONS

Building	Use	Square Feet	Parking Ratio	Required Parking	
A	Retail Store				
	Retail	128,009	1 stall per 200 sf	640.0	
	Restrooms, staircases, utility rooms	3,700	Not required	0.0	
	Warehouse/Loading	11,371	1 stall per 1,000 square feet for first 5,000 sf and 1 stall per 10,000 thereafter	6.0	
	Other (Tire & lube center, Lab, Bakery, Photo Center,	12,998	1 stall per 300 square feet	43.3	
	Total	156,078	Square Feet	689.4	Stalls
B	Retail Store				
	Retail	79,245	1 stall per 200 sf	396.2	
	Restrooms, staircases, utility rooms	2,800	Not required	0.0	
	Warehouse/Loading	16,120	1 stall per 1,000 square feet for first 5,000 sf and 1 stall per 10,000 thereafter	7.0	
	Total	98,165	Square Feet	403.2	Stalls
C	Furniture Store				
	Retail	47630	1 stall per 200 sf	238.2	
	Restrooms, staircases, utility rooms	2600	Not required	0.0	
	Warehouse/Loading	10700	1 stall per 1,000 square feet for first 5,000 sf and 1 stall per 10,000 thereafter	6.0	
	Total	60,930	Square Feet	244.2	Stalls
D	Retail Store				
	Retail	21,515	1 stall per 200 sf	107.6	
	Restrooms, staircases, utility rooms	1,300	Not required	0.0	
	Warehouse/Loading	2,000	1 stall per 1,000 square feet for first 5,000 sf and 1 stall per 10,000 thereafter	2.0	
	Total	24,815	Square Feet	109.6	Stalls
E	Retail Store				
	Retail	33,700	1 stall per 200 sf	168.5	
	Restrooms, staircases, utility rooms	1,800	Not required	0.0	
	Warehouse/Loading	4,464	1 stall per 1,000 square feet for first 5,000 sf and 1 stall per 10,000 thereafter	5.0	
	Total	39,964	Square Feet	173.5	Stalls
F	Retail Store				
	Retail	17,131	1 stall per 200 sf	85.7	
	Restrooms, staircases, utility rooms	1,200	Not required	0.0	
	Warehouse/Loading	2,000	1 stall per 1,000 square feet for first 5,000 sf and 1 stall per 10,000 thereafter	2.0	
	Total	20,331	Square Feet	87.7	Stalls
G	Small Retail Stores				
	Retail	13,740	1 stall per 200 sf	68.7	
	Restrooms, staircases, utility rooms	3,000	Not required	0.0	
	Warehouse/Loading	3,000	1 stall per 1,000 square feet for first 5,000 sf and 1 stall per 10,000 thereafter	3.0	
	Total	19,740	Square Feet	71.7	Stalls
H	Bank				
	Retail	2,800	1 stall per 200 sf	14.0	
	Restrooms, staircases, utility rooms	700	Not required	0.0	
	Warehouse/Loading	0	1 stall per 1,000 square feet for first 5,000 sf and 1 stall per 10,000 thereafter	0.0	
	Total	3,500	Square Feet	14.0	Stalls
	Total Floor Space	**423,523**	**Total Stalls Required**	**1,794**	
	Excluded Space*	17,100			
	Gross Floor Area	**406,423**			

* Floor space used for mechanical equipment, building maintenance, elevators, HVAC, required staircases, public restrooms & off-street loading.



GENERAL INFORMATION

Location of Site: Town of Riverhead, Suffolk County
Access: County Road 58 and Kroemer Avenue in the Town of Riverhead

Suffolk County Tax Map Numbers: 600-101-01-P/O 03, 600-119-01-06 & 600-119-P/O 5.1

Zoning District: DRC (Destination Retail Center)

Area Data:			
600-101-01-P/O 03	=	1,698,573.66ft²	(38.99 Acres)
600-119-01-06	=	67,500.00 ft²	(1.55 Acres)
600-119-01-P/O 5.1	=	43,826.80 ft²	(1.01 Acres)
Total Site Area	=	1,809,900.46ft²	(41.55 Acres)

Survey information taken from survey done by:
Joseph Ingegno, Land Surveyor (Dated 12-18-2006)

FINAL BUILDING LOT COVERAGE (Footprint)

Footprint Coverage: 383,039 ft²/1,809,900.46 ft²=21.16%

Description	Allowed	Provided
Square Feet Allowed (By Right with Sewer)	15.00 % (271,485)	21.16 % (383,039)
Square Feet Allowed with Transfer of Development Rights	30.00 % (542,970)	21.16 % (383,039)

FINAL FLOOR AREA RATIO (FAR)

PROVIDED: 406,423 ft²/1,809,900.46 ft²=22.46%

Description	Allowed	Provided
Square Feet Allowed (By Right with Sewer)	20.00 % (361,980)	22.46 % (406,423)
Square Feet Allowed with Transfer of Development Rights	60.00 % (1,085,940)	22.46 % (406,423)

TRANSFER OF DEVELOPMENT RIGHTS

1,500 ft² of Additional Floor Area = 1 Development Credit

Additional Floor Area:

1,809,900.46 ft² x 0.20 = 361,980 ft²
Of Floor Area Allowed by Right Without TDRs — 361,980 ft²

406,423 ft² - 361,980 ft² = 44,443 ft²
Of Additional Floor Area to be converted to TDR Credits — 44,443 ft²

44,443 ft²/1,500 ft² = 29.63

TDR Credits Required 29.63

ARTICLE LXII, 108-330-H
Destination Retail Center (DRC) Zoning Use District. Preservation credits may be used to increase the development yield associated with site plan applications made to the Town Board pursuant to Article XXVI of the Riverhead Zoning Ordinance. In its review and approval of such site plan applications, the Town Board may increase the allowable development yield at a rate of an additional 1,500 square feet of floor area per preservation credit redeemed to a maximum of 0.3 floor area ratio.

BUILDING AREA

Building	Buliding Use	Building Lot Coverage*	Gross Floor Area**
A	Retail Store	154,313 ft²	152,378 ft²
B	Retail Store	89,911 ft²	95,365 ft²
C	Furniture Store	30,465 ft²	58,330 ft²
D	Retail Store	24,815 ft²	23,515 ft²
E	Retail Store	39,964 ft²	38,164 ft²
F	Retail Store	20,331 ft²	19,131 ft²
G	Small Retail Stores	19,740 ft²	16,740 ft²
H	Bank	3,500 ft²	2,800 ft²
Total 8		383,039 ft²	406,423 ft²

* Building measured to exterior walls.

** Total Floor Area minus floor space used for public restrooms, stairways, elevators, mechanical equipment and maintenance rooms.

DRC ZONING SETBACK REQUIREMENTS

Description		Required	Provided
Front Yard	(Building)	50 ft	103.00 ft
Rear Yard	(Building)	50 ft	279.80 ft
Side Yard-R	(Building)	25 ft	38.70 ft
Side Yard-L	(Building)	25 ft	52.70 ft
Front Yard	(Driveway)	50 ft	69.50 ft
Rear Yard	(Driveway)	30 ft	220.60 ft
Side Yard-R	(Driveway)	5 ft	6.00 ft
Side Yard-L	(Driveway)	5 ft	10.00 ft
Front Yard	(Parking)	50 ft	50.00 ft
Rear Yard	(Parking)	30 ft	200.10 ft
Side Yard-R	(Parking)	10 ft	10.00 ft
Side Yard-L	(Parking)	10 ft	15.00 ft

DIMENSIONAL REQUIREMENTS

Description	Required	Provided
Impervious Surface	75% max (1,357,425 ft²)	75% (1,356,689 ft²)
Contiguous Landscape	20% min (361,980 ft²)	20% (362,220 ft²)
Interior Parking Landscape	10% min* (55,485 ft²)	12.9%* (71,396ft²)
Maximum Building Height	50 ft max	TBD

* Percent of interior parking areas only.

GreenbergFarrow
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Boston, MA 02026
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THE SHOPS AT RIVERHEAD
OLD COUNTRY ROAD (RTE 58) & MILL ROAD, RIVERHEAD, NY
DEVELOPERS REALTY CORPORATION
20060298.2

ALTERNATIVE SITE PLAN (BY-RIGHT)
SCALE: 1"=80'-0"
DRAWING-1.0

10/15/07