

C-P DEVELOPMENT PLAN - OVERALL PLAN  
**CROSSCREEK CENTER C-P**

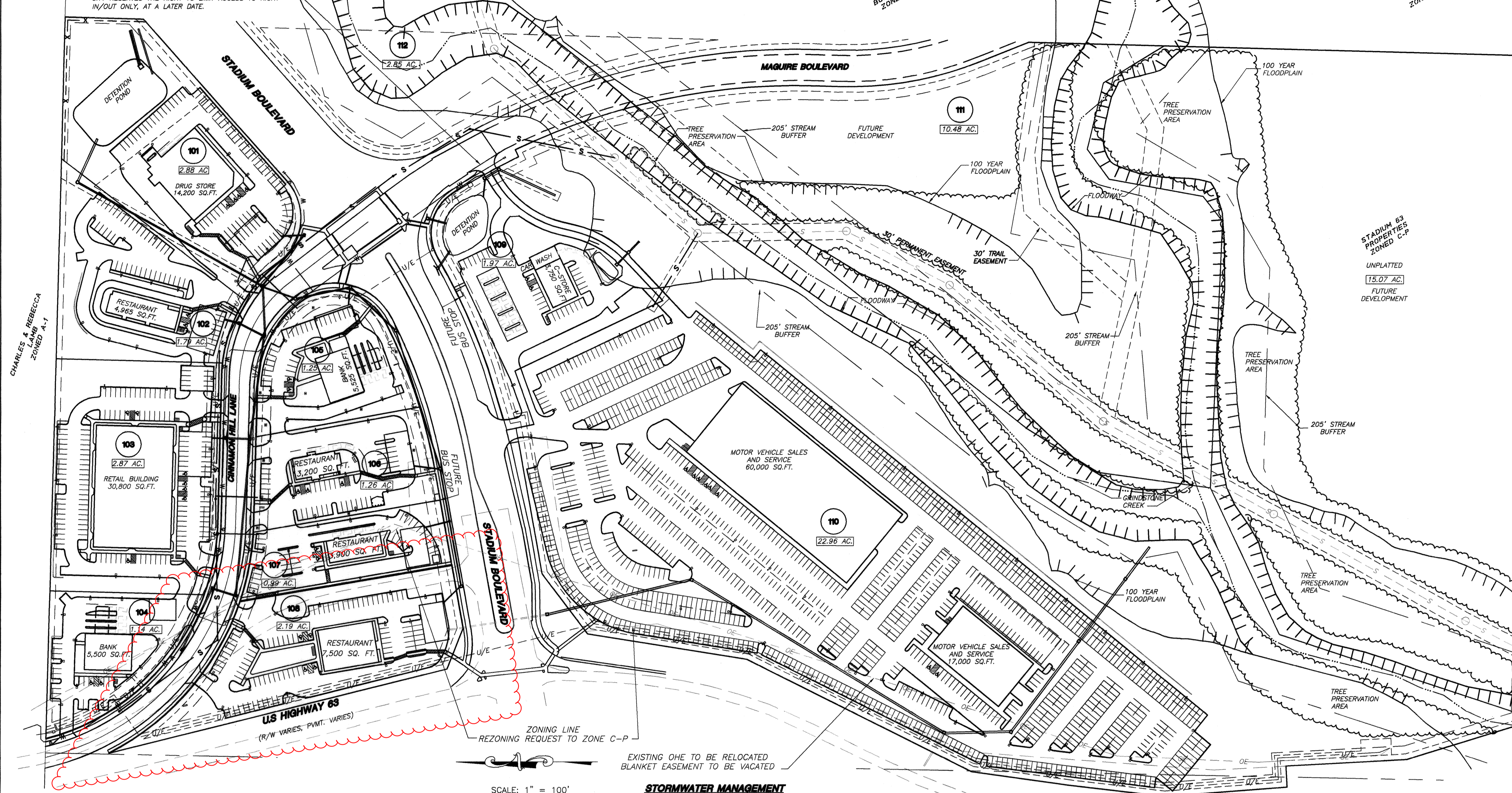
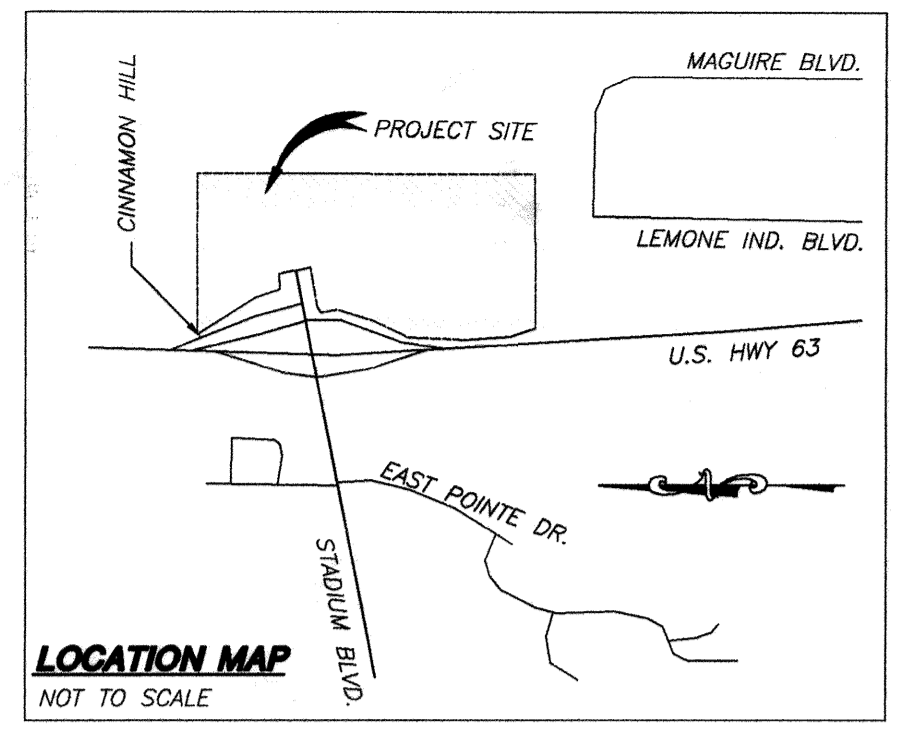
JUNE 26, 2008

JAMES & GAY BUMBARDNER  
 ZONED A-1

MARY H.  
 BUMBARDNER  
 ZONED A-1

CONCORDE  
 OFFICE &  
 INDUSTRIAL PLAZA  
 PLAT 11, LOT 29  
 ZONED M-C

PROPOSED DRIVEWAY 250'± SOUTH OF STADIUM AS ALLOWED  
 IN DEVELOPMENT AGREEMENT IS TO BE FULL ACCESS,  
 WITH RIGHT-LEFT IN/OUT WHEN CONSTRUCTED. THE  
 CITY RESERVES THE RIGHT TO LIMIT ACCESS TO RIGHT  
 IN/OUT ONLY, AT A LATER DATE.



**LEGEND**

WM	EXISTING WATER METER
GP	GUARD POST
FH	EXISTING FIRE HYDRANT
WV	EXISTING WATER VALVE
♿	HANDICAPPED PARKING
♿	HANDICAPPED PARKING SIGN
E	EXISTING IRON PIPE
S	SET-IRON
(R)	REMOVE
(REC.)	RECORD
M.H.	EXISTING SANITARY MANHOLE
CO	EXISTING SANITARY CLEANOUT
●	PROPOSED SANITARY MANHOLE
●	PROPOSED SANITARY CLEANOUT
LP	LIGHT POLE
PP	POWER POLE
—	GUY WIRE
—	EXISTING TELEPHONE
—	EXISTING GUARDRAIL
—	EXISTING GAS
—	EXISTING OVER-HEAD ELECTRIC
—	EXISTING SANITARY
—	EXISTING WATER
—	EXISTING UNDERGROUND ELECTRIC
—	EXISTING WATER
—	PROPOSED SANITARY
—	PROPOSED UNDERGROUND TELEPHONE
—	PROPOSED STORM SEWER
—	FLOWLINE (E)
G	PROPOSED GAS
U/E	PROPOSED UNDERGROUND ELECTRIC
W	PROPOSED WATER
—	ROOF DRAIN
-X-	EXISTING FENCE
-X-	PROPOSED FENCE
700	EXISTING CONTOUR
700	FLOWLINE (E)
—	EXISTING TREELINE
—	PRESERVED TREELINE

**GENERAL NOTES**

- BUILDING SIZE AND DIMENSIONS ARE APPROXIMATE. SEE ARCHITECTS PLANS FOR ACCURATE DIMENSIONS.
- MAXIMUM PROPOSED BUILDING HEIGHT IS 45 FEET.
- TRACT IS ZONED C-P WITH 5.01 AC. UNZONED PENDING C-P ZONING.
- ALL DIMENSIONS ARE FROM BACK OF CURB UNLESS SHOWN OTHERWISE.
- LOT 106 (CASE NO. 08-43) AND LOT 109 (CASE NO. 08-44) HAVE BEEN INCORPORATED INTO THIS PLAN.

**EXISTING UTILITIES**  
 SANITARY SEWER: EXISTING AND PROPOSED SANITARY SEWER AS SHOWN.  
 WATER: PROPOSED WATER MAIN TO BE EXTENDED FROM THE NORTH AS SHOWN.  
 ELECTRIC: PROPOSED ELECTRIC SERVICE TO BE EXTENDED FROM THE NORTH AS SHOWN.

**OWNER**  
 STADIUM 63 PROPERTIES, LLC  
 C/O JOHN STATES  
 2008 W. BROADWAY STE. 220  
 COLUMBIA, MO 65203  
 (573) 442-8373

**SITE DATA**  
 ACREAGE: 71.2  
 ZONING: C-P  
 LOCATION: NE 1/4 OF SECTION 20-48-12

**FLOOD PLAIN STATEMENT**  
 A PORTION OF THIS TRACT IS LOCATED WITHIN THE 100-YEAR FLOOD PLAIN AS SHOWN BY FIRM MAP #2800360017B DATED 12/01/1981.

**STREAM BUFFER NOTES**  
 1. GRINDSTONE CREEK IS CLASSIFIED AS A TYPE I PERENNIAL STREAM AS IDENTIFIED BY THE COLUMBIA QUADRANGLE USGS TOPO MAP.  
 2. THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION OR DISTURBANCE OF VEGETATION EXCEPT AS SPECIFICALLY APPROVED BY THE CITY WITHIN THE OUTER STREAM BUFFER ZONE.

**STREAM BUFFER STATEMENT**  
 THIS TRACT IS REGULATED BY THE CITY OF COLUMBIA STREAM BUFFER ORDINANCE AS DETERMINED BY THE USGS MAP FOR COLUMBIA QUADRANGLE, BOONE COUNTY, MISSOURI. A 100' BUFFER HAS BEEN PROVIDED FOR THE TYPE-1 STREAM, GRINDSTONE CREEK, PER THE CROSSCREEK CENTER PLAT 1 PRELIMINARY PLAT APPROVED NOVEMBER 20, 2006.

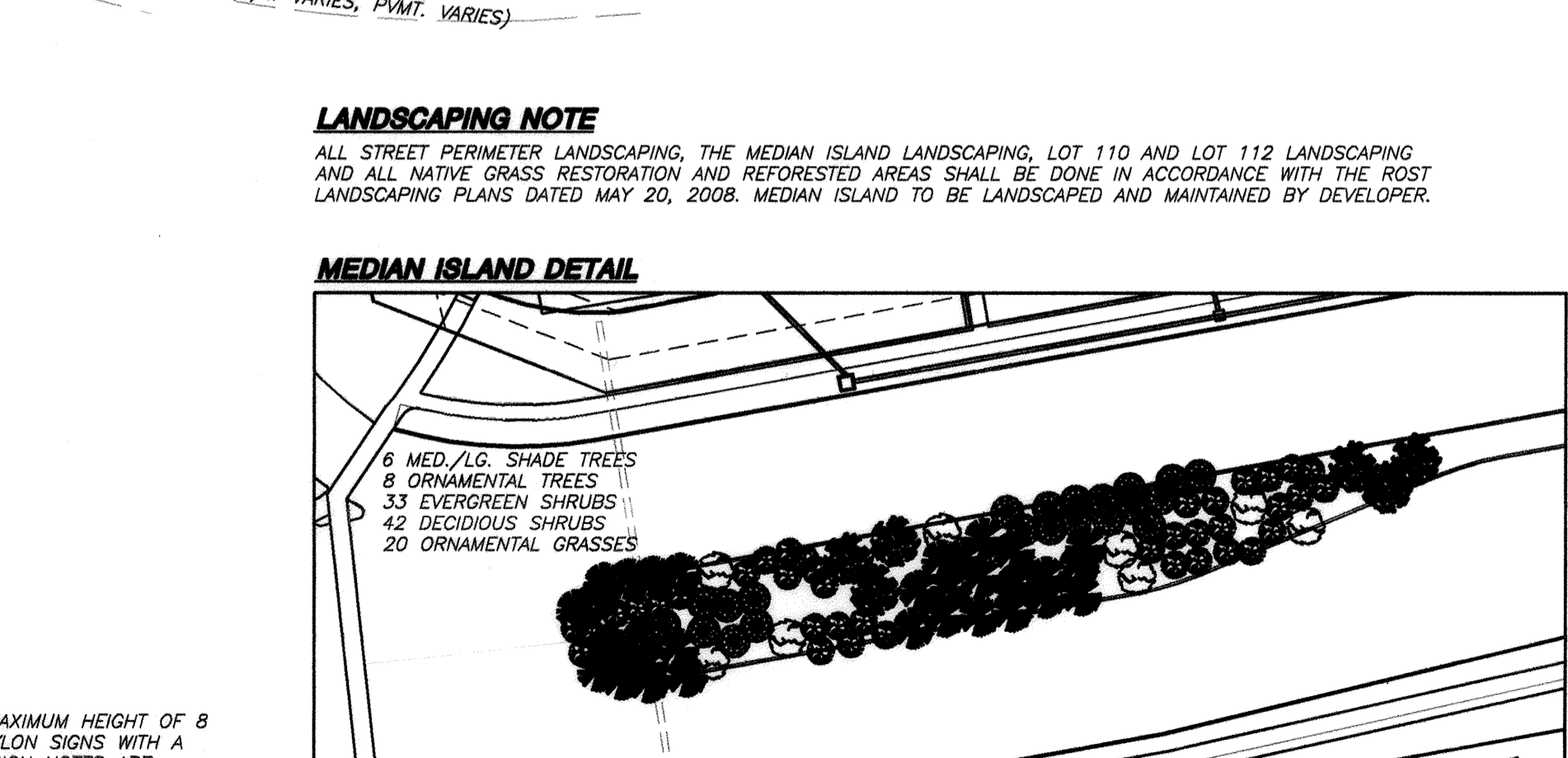
**TREE PRESERVATION**  
 TREE PRESERVATION IS SHOWN AS PER THE APPROVED TREE PRESERVATION PLAN DATED SEPTEMBER 14, 2007.

**STORMWATER MANAGEMENT**

- IT IS THE INTENT OF THIS PLAN TO CAPTURE THE RUNOFF FROM THE IMPROVED SITE AND DETAIN THE PEAK RUNOFF TO PRE-DEVELOPMENT LEVELS FOR THE Q1, Q2, Q10 AND Q100 DESIGN STORMS. THE Q1 DESIGN STORM SHALL ALSO BE TREATED TO OBTAIN THE APPROPRIATE WATER QUALITY LEVEL OF SERVICE. THE FOLLOWING METHODS MAY BE USED TO ACHIEVE THESE GOALS:
  - THE USE OF PERVIOUS/POROUS PAVEMENT IN PORTIONS OF THE PARKING LOT. THIS TYPE OF PAVEMENT REDUCES THE TOTAL IMPERVIOUS AREA OF THE SITE AND FUNCTIONS AS THE STORM WATER SYSTEM INLET. WITH THIS TYPE OF SYSTEM A GRANULAR STORAGE/FILTRATION BED IS PLACED UNDER THE PERVIOUS/POROUS PAVEMENT FOR DETENTION AND TO ALLOW FOR GROUND WATER RECHARGE. SMALLER DIAMETER PVC PIPES WITHIN THE GRANULAR BED ALLOW FOR EXCESS RETAINED WATER TO DRAIN TO THE PUBLIC STORM SEWER SYSTEM.
  - THE USE OF FILTRATION STRIPS ALONG THE EDGE OF THE PARKING LOT PAVEMENT THAT CAN PROVIDE SEDIMENT REMOVAL PRIOR TO DRAINING TO A PERMANENT WET POOL, RETENTION BASIN, ADDITIONAL STORAGE AND TREATMENT MAY BE PROVIDED BY BIORETENTION RAIN GARDENS FOR SMALL PORTIONS OF THE SITE. SMALL DIAMETER PIPES SHALL DRAIN EXCESS STORM WATER TO THE PUBLIC STORM SEWER SYSTEM.
  - THE USE OF GUTTERS AND INLETS TO INTERCEPT AND DRAIN RUNOFF TO UNDERGROUND STORAGE TANKS/VAULTS. WITH THIS TYPE OF SYSTEM THE RUNOFF IS DETAINED IN THE STORAGE TANKS/VAULTS AND IS THEN ROUTED TO A MECHANICAL SEPARATION AND FILTRATION DEVICE WHICH TREATS THE RUNOFF PRIOR TO DRAINING TO THE PUBLIC STORM SEWER SYSTEM.
- ALL STORMWATER MANAGEMENT FACILITIES SHALL BE DESIGNED IN ACCORDANCE WITH CHAPTER 12A AND THE STORMWATER MANAGEMENT AND WATER QUALITY MANUAL OF THE CITY OF COLUMBIA. SUCH FINAL DESIGN SHALL BE PROVIDED BY THE ENGINEER THAT PROVIDES THE FINAL SITE CONSTRUCTION PLANS.

**SIGNAGE**  
 ALL LOTS, EXCEPT LOT 110, SHALL HAVE ONE FREESTANDING MONUMENT SIGN WITH A MAXIMUM HEIGHT OF 8 FEET AND A MAXIMUM AREA OF 64 SQ.FT. LOT 110 SHALL HAVE TWO FREESTANDING PYLON SIGNS WITH A MAXIMUM HEIGHT OF 40 FEET AND A MAXIMUM AREA OF 288 SQUARE FEET. SPECIFIC SIGN NOTES ARE PROVIDED ON INDIVIDUAL LOT SHEETS. ALL OTHER SIGNS SHALL CONFORM TO CHAPTER 23 (SIGN ORDINANCE) OF THE CITY OF COLUMBIA CODE OF ORDINANCES AS IT RELATES TO C-3 ZONED PROPERTY. REVISIONS TO SIGN LOCATIONS MAY BE APPROVED AS A MINOR REVISION.

**LIGHTING**  
 LIGHT POLES SHOWN SHALL BE SEMI-CUTOFF SHOEBOX FIXTURES, INWARD AND DOWNWARD DIRECTED, WHICH MAY BE RELOCATED OR CHANGED IN TOTAL NUMBER BY THE LIGHTING ENGINEER WITHOUT ADDITIONAL APPROVAL. BUILDING MOUNTED LIGHTING IS UNKNOWN AT THIS TIME. ALL OUTDOOR LIGHTING SHALL BE SHOWN ON A FUTURE LIGHTING PLAN THAT WILL COMPLY WITH CHAPTER 29-30.1 OF THE CITY OF COLUMBIA CODE OF ORDINANCES WITH THE EXCEPTION THAT THE MAXIMUM LIGHT POLE HEIGHT SHALL BE 20 FT.



**LEGAL DESCRIPTION**  
 LOTS 101 THROUGH 112 OF CROSSCREEK CENTER PLAT 1 AS RECORDED IN PLAT BOOK 42, PAGE 22 OF THE BOONE COUNTY, MISSOURI RECORDS AND A PORTION OF AN UNPLATTED TRACT OF LAND RECORDED IN BOOK 2736, PAGE 50 OF THE BOONE COUNTY, MISSOURI RECORDS BEING DESCRIBED AS FOLLOWS:  
 BEGINNING AT A 1/2" IRON PIPE BEING THE SE CORNER OF THE SW 1/4 OF THE NE 1/4 OF SECTION 20 T 48 N, R 12 W; THENCE N88°48'05"W, 1187.40 FEET; THENCE N18°13'30"E, 452.79 FEET; THENCE N64°46'35"E, 293.35 FEET; THENCE S87°24'40"E, 481.69 FEET; THENCE N51°52'55"E, 87.18 FEET; THENCE N10°16'05"E, 172.89 FEET; THENCE N63°52'40"E, 67.33 FEET; THENCE S72°29'50"E, 123.45 FEET; THENCE S31°14'25"E, 128.45 FEET; THENCE S01°32'30"W, 664.64 FEET TO THE POINT OF BEGINNING AND CONTAINING 15.07 ACRES.

APPROVED BY THE CITY OF COLUMBIA PLANNING AND ZONING COMMISSION THIS 19th DAY OF July, 2008.  
  
 JEFF BARROW, CHAIRMAN

APPROVED BY THE CITY OF COLUMBIA CITY COUNCIL THIS 21st DAY OF August, 2008.  
  
 DARWIN A. HINDMAN, MAYOR

SHEELA AMIN, CITY CLERK

**OVERALL PLAN - CROSSCREEK CENTER C-P**

**JAY GEBHARDT**  
 LICENSED PROFESSIONAL ENGINEER  
 NUMBER LS-25052  
 (573) 811-5750, FAX: (573) 811-1071

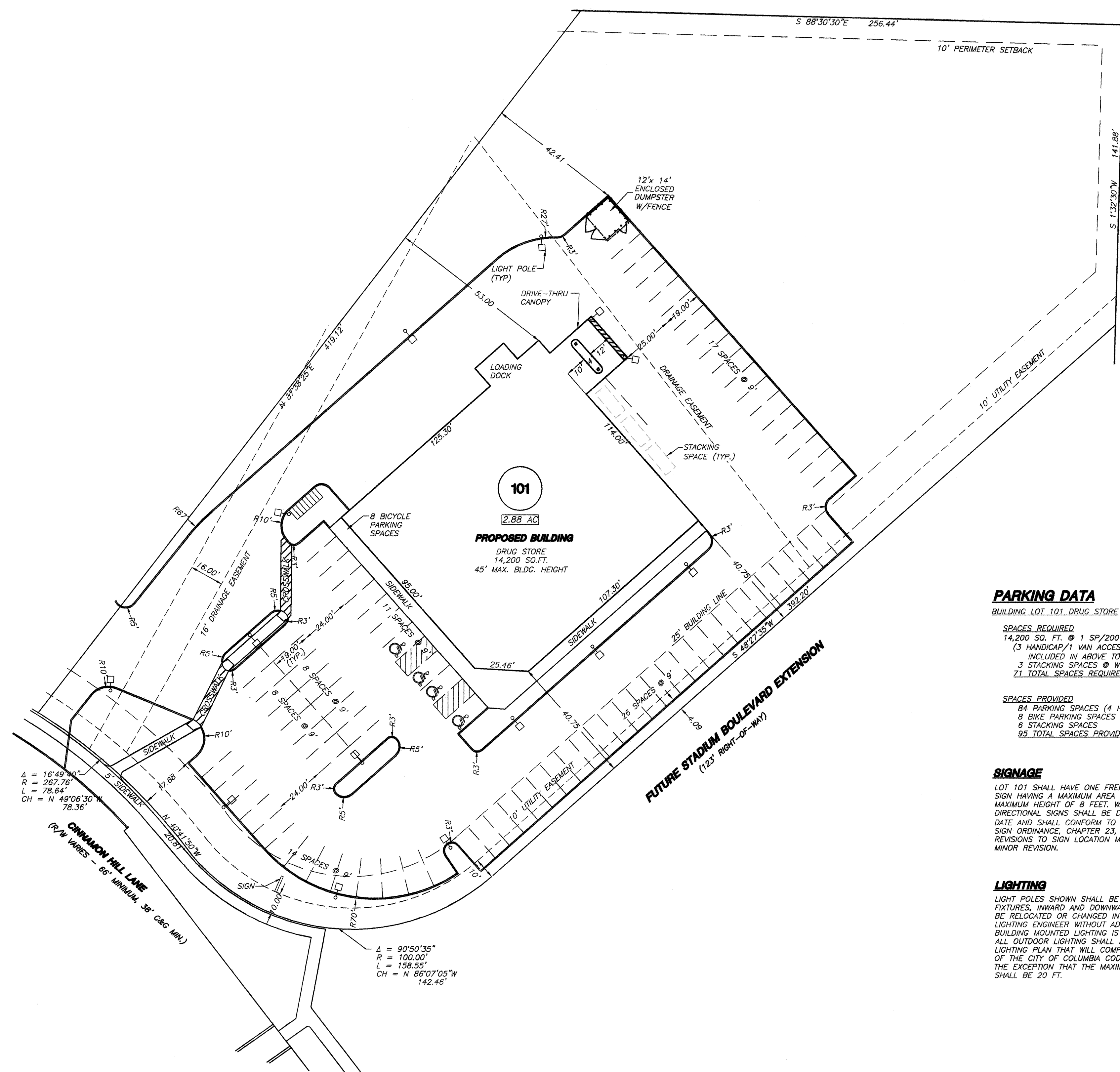
**A CIVIL GROUP**  
 CIVIL ENGINEERING, PLANNING, SURVEYING  
 1023 WILKES BLVD., SUITE 450  
 COLUMBIA, MO 65201

DRAWN BY: TAK DATE: 06/26/08  
 ENGR: JAG PK: KPM DRIVING NO.: KEAR08-07  
 JOB NO.: KEAR08.07 SHEET 1 OF 27

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C-P DEVELOPMENT PLAN  
**CROSSCREEK CENTER C-P**  
 JUNE 26, 2008

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**PARKING DATA**

BUILDING LOT 101 DRUG STORE

**SPACES REQUIRED**  
 14,200 SQ. FT. @ 1 SP/200 SQ. FT. = 71 SPACES  
 (3 HANDICAP/1 VAN ACCESSIBLE & 8 BIKE SPACES INCLUDED IN ABOVE TOTAL REQUIREMENTS).  
 3 STACKING SPACES @ WINDOW  
**71 TOTAL SPACES REQUIRED**

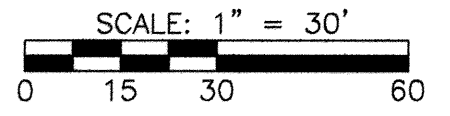
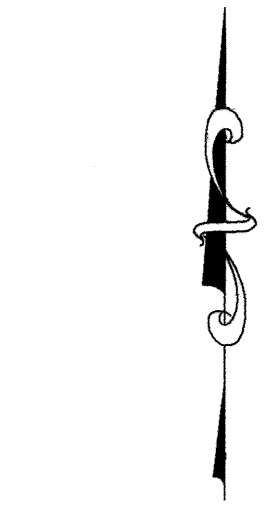
**SPACES PROVIDED**  
 84 PARKING SPACES (4 H.C. VAN ACCESS)  
 8 BIKE PARKING SPACES  
 6 STACKING SPACES  
**98 TOTAL SPACES PROVIDED +6 STACKING @ WINDOW**

**SIGNAGE**

LOT 101 SHALL HAVE ONE FREE STANDING MONUMENT SIGN HAVING A MAXIMUM AREA OF 64 SQ. FT. AND A MAXIMUM HEIGHT OF 8 FEET. WALL MOUNTED AND DIRECTIONAL SIGNS SHALL BE DETERMINED AT A LATER DATE AND SHALL CONFORM TO THE CITY OF COLUMBIA'S SIGN ORDINANCE, CHAPTER 23, FORM C-3 ZONING. REVISIONS TO SIGN LOCATION MAY BE APPROVED AS A MINOR REVISION.

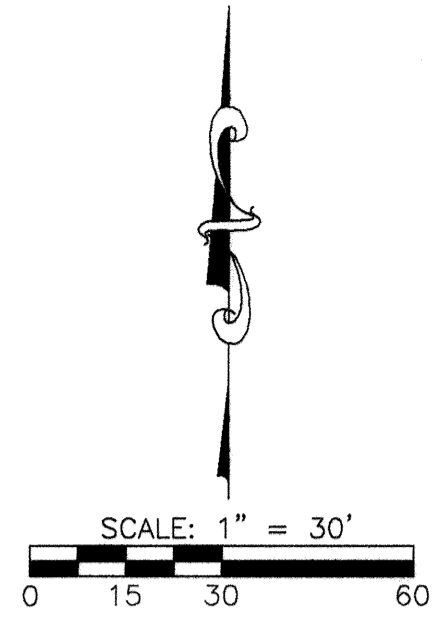
**LIGHTING**

LIGHT POLES SHOWN SHALL BE SEMI-CUTOFF SHOEBOX FIXTURES, INWARD AND DOWNWARD DIRECTED, WHICH MAY BE RELOCATED OR CHANGED IN TOTAL NUMBER BY THE LIGHTING ENGINEER WITHOUT ADDITIONAL APPROVAL. BUILDING MOUNTED LIGHTING IS UNKNOWN AT THIS TIME. ALL OUTDOOR LIGHTING SHALL BE SHOWN ON A FUTURE LIGHTING PLAN THAT WILL COMPLY WITH CHAPTER 29-30.1 OF THE CITY OF COLUMBIA CODE OF ORDINANCES WITH THE EXCEPTION THAT THE MAXIMUM LIGHT POLE HEIGHT SHALL BE 20 FT.



CROSSCREEK CENTER C-P PLAN - LOT 101

	A CIVIL GROUP CIVIL ENGINEERING, PLANNING, SURVEYING 1123 WILKES BLVD., SUITE 450 COLUMBIA, MO 65201 PHONE: (573)811-5750, FAX: (573)811-4171	
DRAWN BY: JDC ENGR: JAG NO. DATE DESCRIPTION BY JOB NO.: KEAROB.07	DATE: 06/26/08 FILE: KPM SHEET 2 OF 27	DRAWING NO.: KEAROB-07



**LANDSCAPING/TREE PRESERVATION NOTES**

- TOTAL AREA OF LOT= 2.88 AC. = 125,452 SQ.FT.  
 TOTAL PAVED AREA= 49,625 SQ.FT. (40%)  
 TOTAL FUTURE BUILDING AREA= 14,200 SQ.FT. (11%)  
 TOTAL IMPERVIOUS AREA= 63,825 SQ.FT. (51%)  
 TOTAL AREA OF LANDSCAPING= 61,627 SQ.FT. (49%)
- ALL DISTURBED AREAS SHALL BE SEEDED & MULCHED AFTER CONSTRUCTION.
- PAVED AREA = 49,625 SQ. FT. / 4,500 = 11 TREES REQUIRED.
- STREET BUFFER = 345 LF OF PAVED AREA WITHIN 20' OF RIGHT-OF-WAY.  
 345 LF / 50' = 7 TREES  
 345 LF X 50% = 173 LF SCREENING  
 173 LF SCREENING / 3 LF PER SHRUB = 58 SHRUB/BUSHES  
 ALL SHRUBS/BUSHES TO BE A MIN. 3' IN HEIGHT
- 30% OF TOTAL TREES = 10 MED./LG. SHADE TREES.  
 32 TREES TOTAL SHOWN ON SITE.
- LANDSCAPING MAY BE ENHANCED BY THE DEVELOPER AS TIME AND BUDGET ALLOWS.
- ALL STREET PERIMETER LANDSCAPING, THE MEDIAN ISLAND LANDSCAPING, LOT 110 AND LOT 112 LANDSCAPING AND ALL NATIVE GRASS RESTORATION AND REFORESTED AREAS SHALL BE DONE IN ACCORDANCE WITH THE ROST LANDSCAPING PLANS DATED MAY 20, 2008.

**PLANT SCHEDULE**

SYMBOL	QUANTITY	PLANT SPECIES	SIZE
A	37	LARGE DECIDUOUS SHRUB	5 GAL
B	10	EVERGREEN SHRUB	5 GAL
C	15	ORNAMENTAL TREE	2"
D	17	SHADE TREE (MED. - LG.)	2"
E	1.39 AC.	TURF GRASS	N/A
F	12	ORNAMENTAL GRASS	5' CLUMP

**RESIDENTIAL SCREENING**

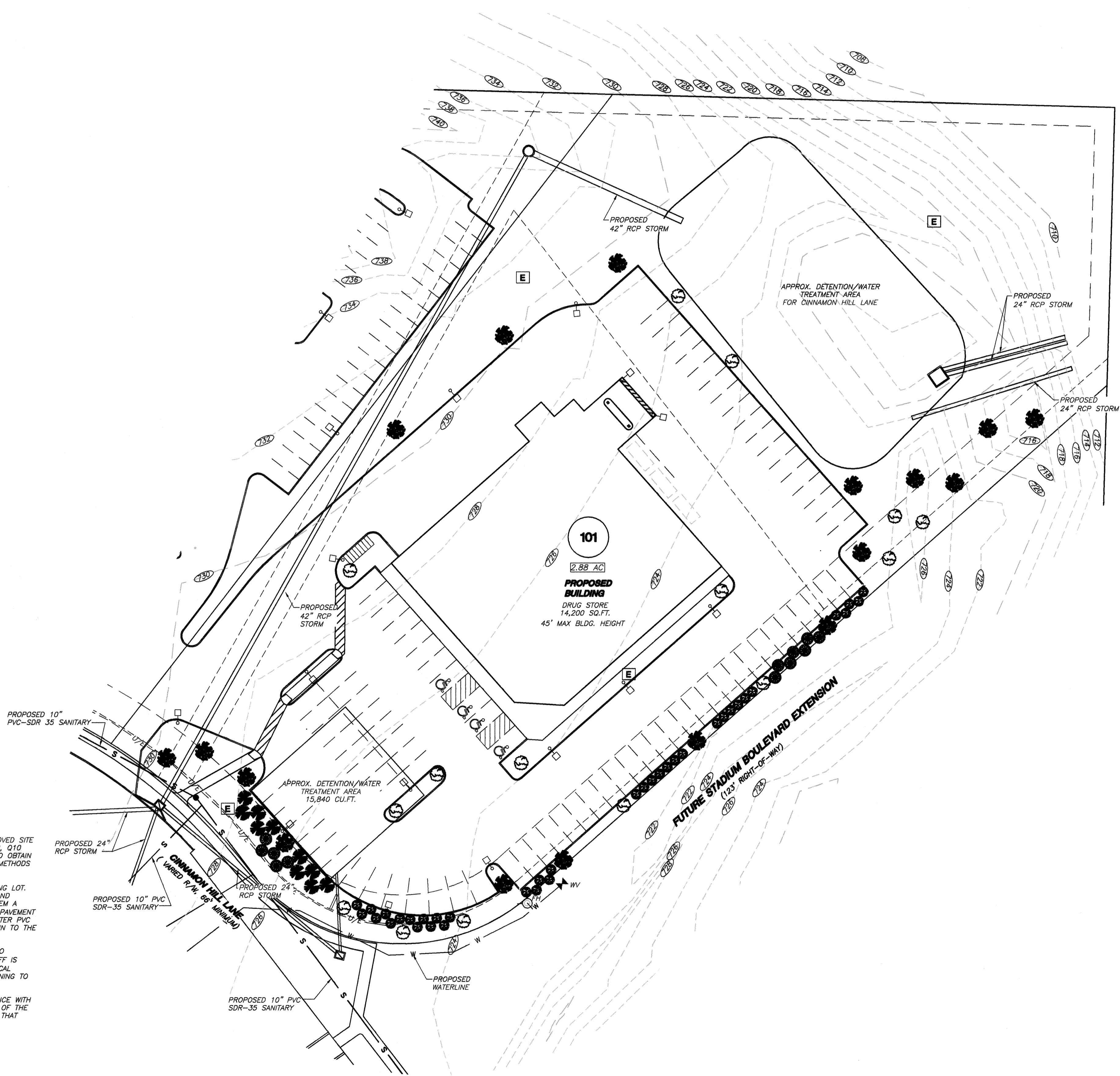
LOTS 102-104 ADJUT A RESIDENTIALLY USED PROPERTY ALONG THE NORTH PROPERTY LINE. FINAL GRADING WILL PLACE LOTS 102-104 A MINIMUM OF 10' BELOW THE ADJACENT PROPERTY AND WILL USE RETAINING WALLS TO ADJUST GRADES. LOT 101 SHALL HAVE A WOODEN PRIVACY FENCE 8 FT. IN HEIGHT PLACED ALONG THE NORTH AND EAST SIDES OF THE PROPERTY TO SCREEN RESIDENTIALLY ZONED/USED PROPERTY. SUCH FENCE SHALL HAVE AN OPAQUITY OF AT LEAST 80% YEAR ROUND.

**TREE PRESERVATION**

REFER TO THE OVERALL C-P PLAN (SHEET 1) FOR TREE PRESERVATION DETAILS. TREE PRESERVATION SHALL BE SHOWN ON INDIVIDUAL SITES IF PRESENT.

**STORMWATER MANAGEMENT**

- IT IS THE INTENT OF THIS PLAN TO CAPTURE THE RUNOFF FROM THE IMPROVED SITE AND DETAIN THE PEAK RUNOFF TO PRE-DEVELOPMENT LEVELS FOR THE Q1, Q2, Q10 AND Q100 DESIGN STORMS. THE Q1 DESIGN STORM SHALL ALSO BE TREATED TO OBTAIN THE APPROPRIATE WATER QUALITY LEVEL OF SERVICE. ONE OF TWO FOLLOWING METHODS MAY BE USED TO ACHIEVE THESE GOALS:
  - THE USE OF PERVIOUS/POROUS PAVEMENT IN PORTIONS OF THE PARKING LOT. THIS TYPE OF PAVEMENT REDUCES THE TOTAL IMPERVIOUS AREA OF THE SITE AND FUNCTIONS AS THE STORM WATER SYSTEM INLET. WITH THIS TYPE OF SYSTEM A GRANULAR STORAGE/FILTRATION BED IS PLACED UNDER THE PERVIOUS/POROUS PAVEMENT FOR DETENTION AND TO ALLOW FOR GROUND WATER RECHARGE. SMALLER DIAMETER PVC PIPES WITHIN THE GRANULAR BED ALLOW FOR EXCESS RETAINED WATER TO DRAIN TO THE PUBLIC STORM SEWER SYSTEM.
  - THE USE OF GUTTERS AND INLETS TO INTERCEPT AND DRAIN RUNOFF TO UNDERGROUND STORAGE TANKS/VAULTS. WITH THIS TYPE OF SYSTEM THE RUNOFF IS DETAINED IN THE STORAGE TANKS/VAULTS AND IS THEN ROUTED TO A MECHANICAL SEPARATION AND FILTRATION DEVICE WHICH TREATS THE RUNOFF PRIOR TO DRAINING TO THE PUBLIC STORM SEWER SYSTEM.
- ALL STORMWATER MANAGEMENT FACILITIES SHALL BE DESIGNED IN ACCORDANCE WITH CHAPTER 124 AND THE STORMWATER MANAGEMENT AND WATER QUALITY MANUAL OF THE CITY OF COLUMBIA. SUCH FINAL DESIGN SHALL BE PROVIDED BY THE ENGINEER THAT PROVIDES THE FINAL SITE CONSTRUCTION PLANS.



**LEGEND**

- WM = EXISTING WATER METER
- GP = GUARD POST
- FH = EXISTING FIRE HYDRANT
- WV = EXISTING WATER VALVE
- ♿ = HANDICAPPED PARKING
- ♿ = HANDICAPPED PARKING SIGN
- E = EXISTING IRON PIPE
- S = SET-IRON
- (R) = REMOVE
- (REC.) = RECORD
- M.H. = EXISTING SANITARY MANHOLE
- CO = EXISTING SANITARY CLEANOUT
- = PROPOSED SANITARY MANHOLE
- = PROPOSED SANITARY CLEANOUT
- LP = LIGHT POLE
- PP = POWER POLE
- = GUY WIRE
- = EXISTING TELEPHONE
- = EXISTING GUARDRAIL
- = EXISTING GAS
- = EXISTING OVER-HEAD ELECTRIC
- = EXISTING SANITARY
- = EXISTING WATER
- = EXISTING UNDERGROUND ELECTRIC
- = EXISTING WATER
- = PROPOSED SANITARY
- = PROPOSED UNDERGROUND TELEPHONE
- = PROPOSED STORM SEWER
- = FLOWLINE (E)
- = PROPOSED GAS
- = PROPOSED UNDERGROUND ELECTRIC
- = PROPOSED WATER
- = ROOF DRAIN
- X- = EXISTING FENCE
- X- = PROPOSED FENCE
- 700 = EXISTING CONTOUR
- 700 = FLOWLINE (E)
- = EXISTING TREELINE
- = PRESERVED TREELINE

**CROSSCREEK CENTER C-P  
 STORMWATER MANAGEMENT/LANDSCAPING - LOT 101**

JAY ALAN KEARNEY  
 ENGINEER  
 STATE OF MARYLAND  
 NO. 10000

**A CIVIL GROUP**  
 CIVIL ENGINEERING, PLANNING, SURVEYING  
 1123 WILKES BLVD., SUITE 450  
 COLUMBIA, MD 21040  
 PHONE: (410)811-9150, FAX: (410)811-1111

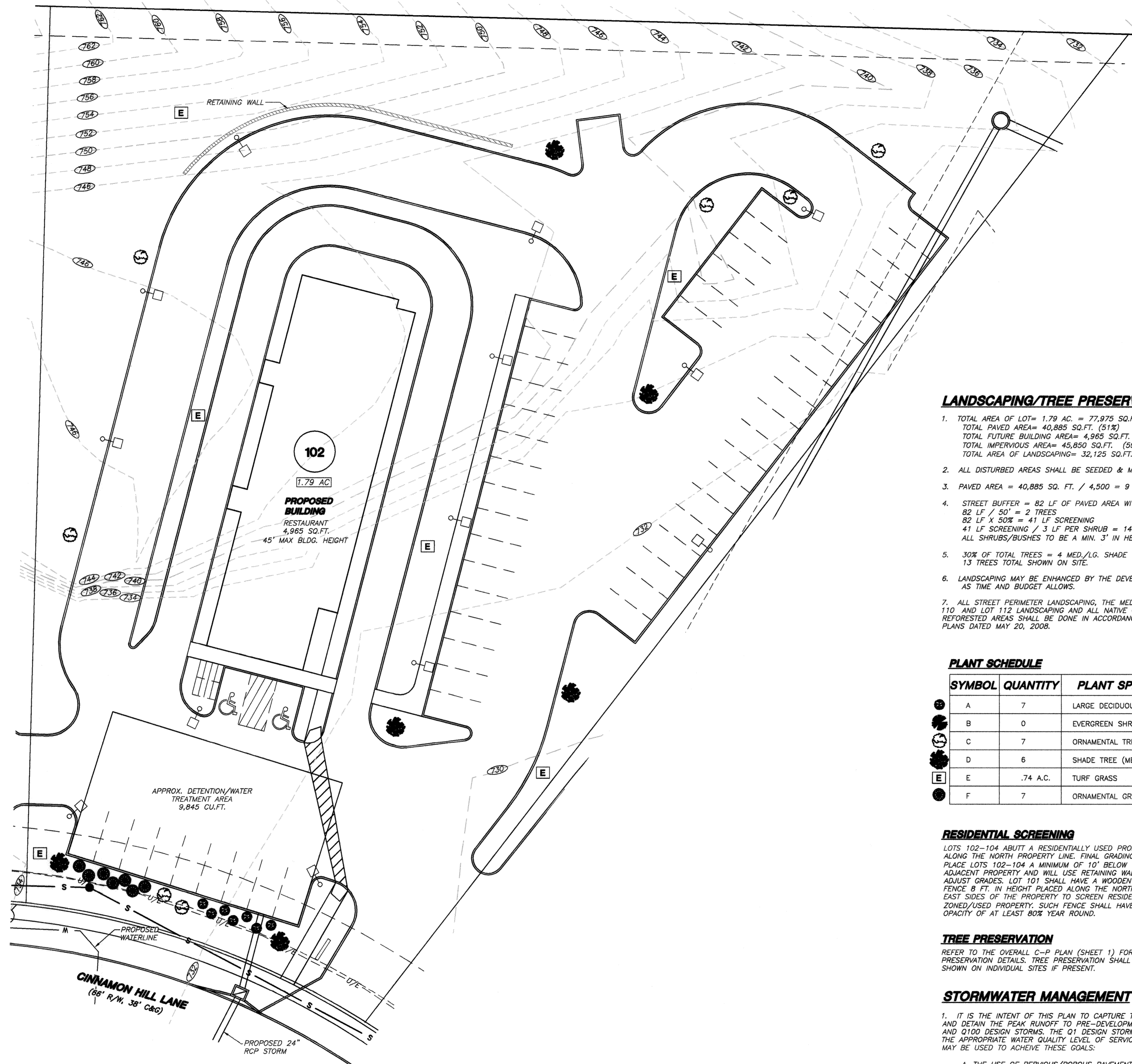
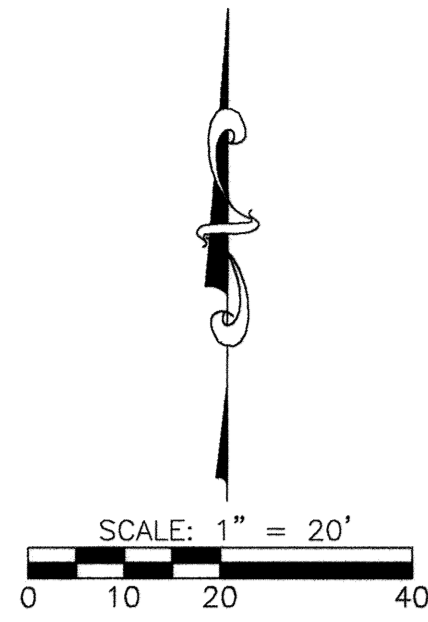
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DRAWING NO.: KEAR08-07	
BY: KEAR08.07	SHEET 3 OF 27

X:\Project\Kearney\Crosscreek Center\EP\CROSSCREEK CENTER C-P\KEAR08-07\CROSSCREEK CENTER NORTH RE-REVISED.dwg PRELIM STORM AND LANDSCAPE



C-P DEVELOPMENT PLAN  
**CROSSCREEK CENTER C-P**

JUNE 26, 2008



**LEGEND**

- WM ○ EXISTING WATER METER
- GP ○ GUARD POST
- FH ○ EXISTING FIRE HYDRANT
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- W — PROPOSED WATER
- — ROOF DRAIN
- X — EXISTING FENCE
- X — PROPOSED FENCE
- 200 — EXISTING CONTOUR
- 200 — ... FLOWLINE (E)
- — EXISTING TREELINE
- — PRESERVED TREELINE

**LANDSCAPING/TREE PRESERVATION NOTES**

1. TOTAL AREA OF LOT = 1.79 AC. = 77,975 SQ.FT.  
 TOTAL PAVED AREA = 40,885 SQ.FT. (51%)  
 TOTAL FUTURE BUILDING AREA = 4,985 SQ.FT. (6%)  
 TOTAL IMPERVIOUS AREA = 45,850 SQ.FT. (59%)  
 TOTAL AREA OF LANDSCAPING = 32,125 SQ.FT. (41%)
2. ALL DISTURBED AREAS SHALL BE SEEDED & MULCHED AFTER CONSTRUCTION.
3. PAVED AREA = 40,885 SQ. FT. / 4,500 = 9 TREES REQUIRED.
4. STREET BUFFER = 82 LF OF PAVED AREA WITHIN 20' OF RIGHT-OF-WAY.  
 82 LF X 50' = 2 TREES  
 82 LF X 50% = 41 LF SCREENING  
 41 LF SCREENING / 3 LF PER SHRUB = 14 SHRUB/BUSHES  
 ALL SHRUBS/BUSHES TO BE A MIN. 3" IN HEIGHT
5. 30% OF TOTAL TREES = 4 MED./LG. SHADE TREES.  
 13 TREES TOTAL SHOWN ON SITE.
6. LANDSCAPING MAY BE ENHANCED BY THE DEVELOPER AS TIME AND BUDGET ALLOWS.
7. ALL STREET PERIMETER LANDSCAPING, THE MEDIAN ISLAND LANDSCAPING, LOT 110 AND LOT 112 LANDSCAPING AND ALL NATIVE GRASS RESTORATION AND REFORESTED AREAS SHALL BE DONE IN ACCORDANCE WITH THE ROST LANDSCAPING PLANS DATED MAY 20, 2008.

**PLANT SCHEDULE**

SYMBOL	QUANTITY	PLANT SPECIES	SIZE
A	7	LARGE DECIDUOUS SHRUB	5 GAL
B	0	EVERGREEN SHRUB	5 GAL
C	7	ORNAMENTAL TREE	2"
D	6	SHADE TREE (MED. - LG.)	2"
E	.74 A.C.	TURF GRASS	N/A
F	7	ORNAMENTAL GRASS	5' CLUMP

**RESIDENTIAL SCREENING**

LOTS 102-104 ADJUT A RESIDENTIALLY USED PROPERTY ALONG THE NORTH PROPERTY LINE. FINAL GRADING WILL PLACE LOTS 102-104 A MINIMUM OF 10' BELOW THE ADJACENT PROPERTY AND WILL USE RETAINING WALLS TO ADJUST GRADES. LOT 101 SHALL HAVE A WOODEN PRIVACY FENCE 8 FT. IN HEIGHT PLACED ALONG THE NORTH AND EAST SIDES OF THE PROPERTY TO SCREEN RESIDENTIALLY ZONED/USED PROPERTY. SUCH FENCE SHALL HAVE AN OPACITY OF AT LEAST 80% YEAR ROUND.

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**STORMWATER MANAGEMENT**

1. IT IS THE INTENT OF THIS PLAN TO CAPTURE THE RUNOFF FROM THE IMPROVED SITE AND DETAIN THE PEAK RUNOFF TO PRE-DEVELOPMENT LEVELS FOR THE Q1, Q2, Q10 AND Q100 DESIGN STORMS. THE Q1 DESIGN STORM SHALL ALSO BE TREATED TO OBTAIN THE APPROPRIATE WATER QUALITY LEVEL OF SERVICE. ONE OF TWO FOLLOWING METHODS MAY BE USED TO ACHIEVE THESE GOALS:
  - A. THE USE OF PERVIOUS/POROUS PAVEMENT IN PORTIONS OF THE PARKING LOT. THIS TYPE OF PAVEMENT REDUCES THE TOTAL IMPERVIOUS AREA OF THE SITE AND FUNCTIONS AS THE STORM WATER SYSTEM INLET. WITH THIS TYPE OF SYSTEM A GRANULAR STORAGE/FILTRATION BED IS PLACED UNDER THE PERVIOUS/POROUS PAVEMENT FOR DETENTION AND TO ALLOW FOR GROUND WATER RECHARGE. SMALLER DIAMETER PVC PIPES WITHIN THE GRANULAR BED ALLOW FOR EXCESS RETAINED WATER TO DRAIN TO THE PUBLIC STORM SEWER SYSTEM.
  - B. THE USE OF CUTTERS AND INLETS TO INTERCEPT AND DRAIN RUNOFF TO UNDERGROUND STORAGE TANKS/VAULTS. WITH THIS TYPE OF SYSTEM THE RUNOFF IS DETAINED IN THE STORAGE TANKS/VAULTS AND IS THEN ROUTED TO A MECHANICAL SEPERATION AND FILTRATION DEVICE WHICH TREATS THE RUNOFF PRIOR TO DRAINING TO THE PUBLIC STORM SEWER SYSTEM.
2. ALL STORMWATER MANAGEMENT FACILITIES SHALL BE DESIGNED IN ACCORDANCE WITH CHAPTER 12A AND THE STORMWATER MANAGEMENT AND WATER QUALITY MANUAL OF THE CITY OF COLUMBIA. SUCH FINAL DESIGN SHALL BE PROVIDED BY THE ENGINEER THAT PROVIDES THE FINAL SITE CONSTRUCTION PLANS.

**CROSSCREEK CENTER C-P  
 STORMWATER MANAGEMENT/LANDSCAPING - LOT 102**

JAY GEBHARDT MD E-35092

**A CIVIL GROUP**  
 CIVIL ENGINEERING, PLANNING, SURVEYING  
 123 WILKES BLVD., SUITE 450  
 COLUMBIA, MD 21041  
 PHONE: (571)811-5150, FAX: (571)811-1071

DRAWN BY:	JDC	DATE:	06/26/08
ENGR:	JAG	PK:	KPM
DRAWING NO.:		KEAR08-07	
JOB NO.:		KEAR08.07	
SHEET:		5 OF 27	

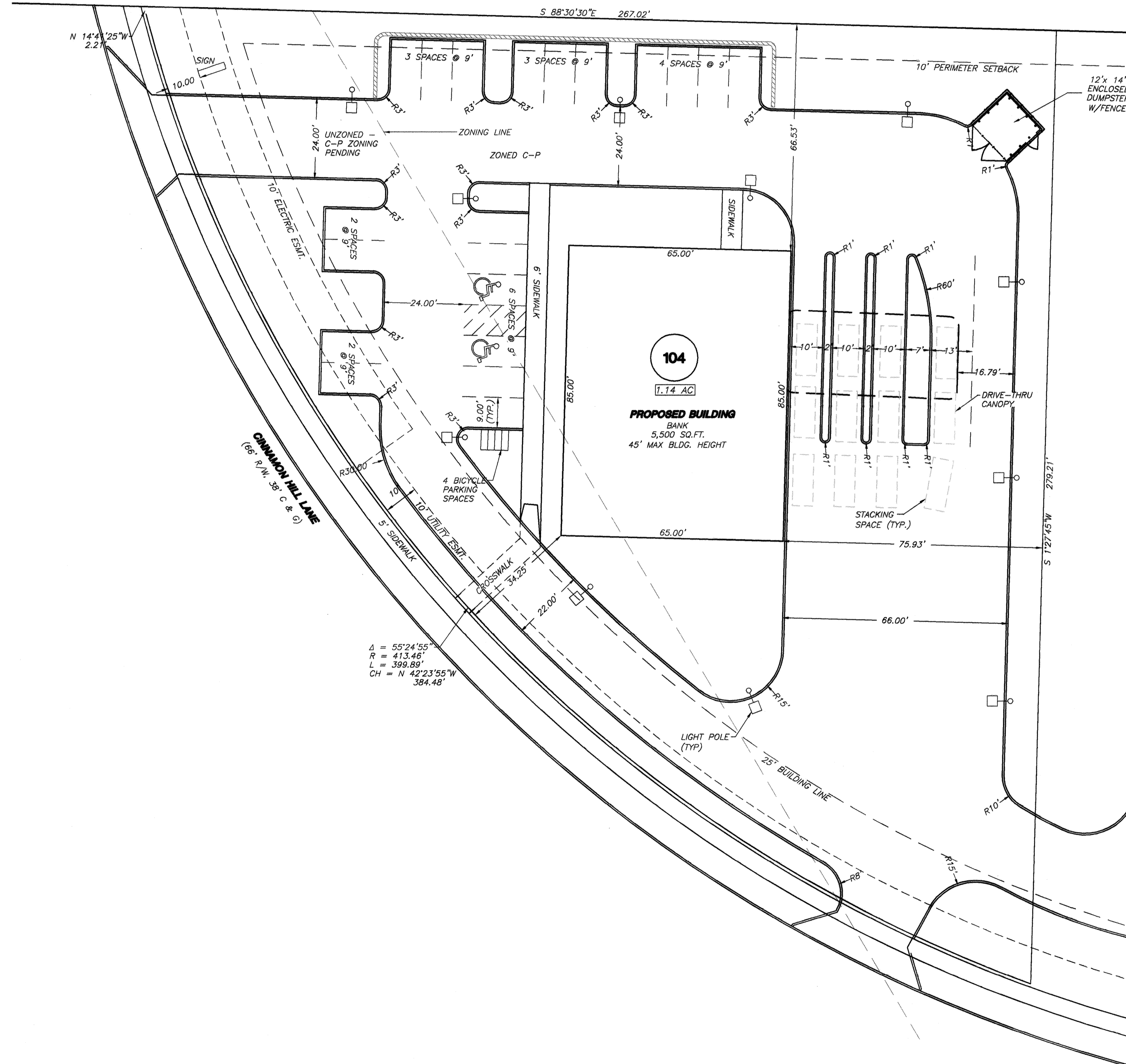
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C-P DEVELOPMENT PLAN  
**CROSSCREEK CENTER C-P**  
 JUNE 26, 2008

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**PARKING DATA**

**BUILDING LOT 104 BANK**

**SPACES REQUIRED**

5,500 SQ. FT. @ 1 SP/300 SQ. FT. = 19 SPACES  
 (1 HANDICAP/VAN ACCESSIBLE & 4 BIKE SPACES INCLUDED  
 IN ABOVE TOTAL REQUIREMENTS)  
 12 STACKING SPACES @ THE WINDOWS  
**31 TOTAL SPACES REQUIRED**

**SPACES PROVIDED**

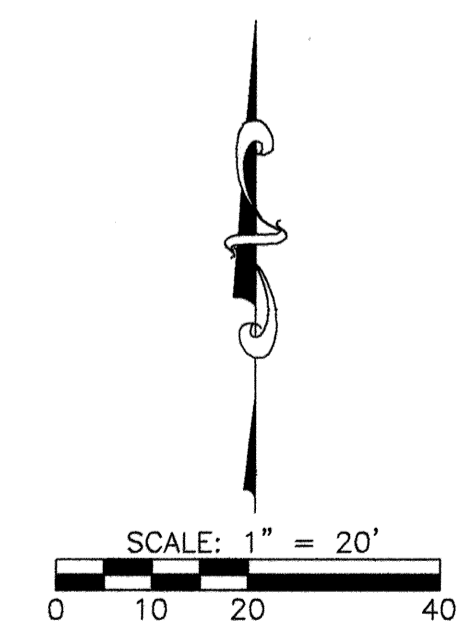
20 PARKING SPACES (2 H.C. VAN ACCESS)  
 4 BIKE SPACES  
 12 SPACES @ WINDOW  
**36 TOTAL SPACES PROVIDED**

**SIGNAGE**

LOT 104 SHALL HAVE ONE FREE STANDING MONUMENT SIGN HAVING A MAXIMUM AREA OF 64 SQ.FT. AND A MAXIMUM HEIGHT OF 8 FEET. WALL MOUNTED AND DIRECTIONAL SIGNS SHALL BE DETERMINED AT A LATER DATE AND SHALL CONFORM TO THE CITY OF COLUMBIA'S SIGN ORDINANCE, CHAPTER 23, FOR C-3 ZONING. REVISIONS TO SIGN LOCATION MAY BE APPROVED AS A MINOR REVISION.

**LIGHTING**

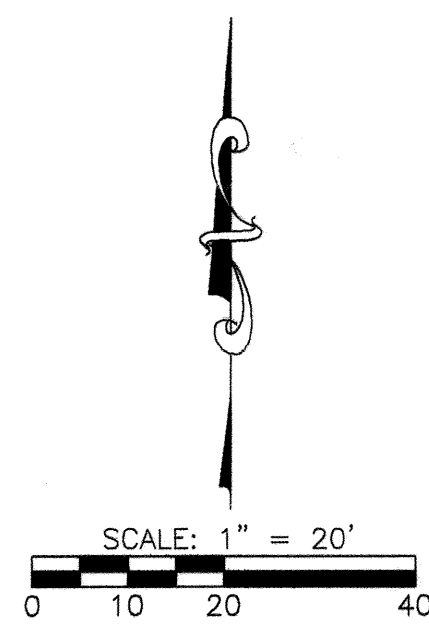
LIGHT POLES SHOWN SHALL BE SEMI-CUTOFF SHOEBOX FIXTURES, INWARD AND DOWNWARD DIRECTED, WHICH MAY BE RELOCATED OR CHANGED IN TOTAL NUMBER BY THE LIGHTING ENGINEER WITHOUT ADDITIONAL APPROVAL. BUILDING MOUNTED LIGHTING IS UNKNOWN AT THIS TIME. ALL OUTDOOR LIGHTING SHALL BE SHOWN ON A FUTURE LIGHTING PLAN THAT WILL COMPLY WITH CHAPTER 29-30.1 OF THE CITY OF COLUMBIA CODE OF ORDINANCES WITH THE EXCEPTION THAT THE MAXIMUM LIGHT POLE HEIGHT SHALL BE 20 FT.



**CROSSCREEK CENTER C-P PLAN - LOT 104**

	<p><b>A CIVIL GROUP</b>                  CIVIL ENGINEERING, PLANNING, SURVEYING                  1123 WILKES BLVD., SUITE 450                  COLUMBIA, MD 21021                  PHONE: (301)811-5750, FAX: (301)811-1171</p>





### LANDSCAPING/TREE PRESERVATION NOTES

- TOTAL AREA OF LOT= 1.14 AC. = 49,770 SQ.FT.  
TOTAL PAVED AREA= 28,941 SQ.FT. (58%)  
TOTAL FUTURE BUILDING AREA= 5,500 SQ.FT. (11%)  
TOTAL IMPERVIOUS AREA= 34,441 SQ.FT. (69%)  
TOTAL AREA OF LANDSCAPING= 15,329 SQ.FT. (31%)
- ALL DISTURBED AREAS SHALL BE SEEDED & MULCHED AFTER CONSTRUCTION.
- PAVED AREA = 28,941 SQ. FT. / 4,500 = 7 TREES REQUIRED.
- STREET BUFFER = 240 LF OF PAVED AREA WITHIN 20' OF RIGHT-OF-WAY.  
240 LF / 50' = 5 TREES  
240 LF X 50% = 120 LF SCREENING  
120 LF SCREENING / 3 LF PER SHRUB = 40 SHRUB/BUSHES  
ALL SHRUBS/BUSHES TO BE A MIN. 3' IN HEIGHT
- 30% OF TOTAL TREES = 6 MED./LG. SHADE TREES.  
17 TREES TOTAL SHOWN ON SITE.
- LANDSCAPING MAY BE ENHANCED BY THE DEVELOPER AS TIME AND BUDGET ALLOWS.
- ALL STREET PERIMETER LANDSCAPING, THE MEDIAN ISLAND LANDSCAPING, LOT 110 AND LOT 112 LANDSCAPING AND ALL NATIVE GRASS RESTORATION AND REFORESTED AREAS SHALL BE DONE IN ACCORDANCE WITH THE MOST LANDSCAPING PLANS DATED MAY 20, 2008.

### PLANT SCHEDULE

SYMBOL	QUANTITY	PLANT SPECIES	SIZE
A	21	LARGE DECIDUOUS SHRUB	5 GAL
B	15	EVERGREEN SHRUB	5 GAL
C	8	ORNAMENTAL TREE	2"
D	9	SHADE TREE (MED. - LG.)	2"
E	.74 A.C.	TURF GRASS	N/A
F	4	ORNAMENTAL GRASS	5' CLUMP

### RESIDENTIAL SCREENING

LOTS 101-104 ABUT A RESIDENTIALLY USED PROPERTY ALONG THE NORTH PROPERTY LINE. FINAL GRADING WILL PLACE LOTS 102-104 A MINIMUM OF 10' BELOW THE ADJACENT PROPERTY AND WILL USE RETAINING WALLS TO ADJUST GRADES. LOT 101 SHALL HAVE A WOODEN PRIVACY FENCE 8 FT. IN HEIGHT PLACED ALONG THE NORTH AND EAST SIDES OF THE PROPERTY TO SCREEN RESIDENTIALLY ZONED/USED PROPERTY. SUCH FENCE SHALL HAVE AN OPAQUITY OF AT LEAST 80% YEAR ROUND.

### TREE PRESERVATION

REFER TO THE OVERALL C-P PLAN (SHEET 1) FOR TREE PRESERVATION DETAILS. TREE PRESERVATION SHALL BE SHOWN ON INDIVIDUAL SITES IF PRESENT.

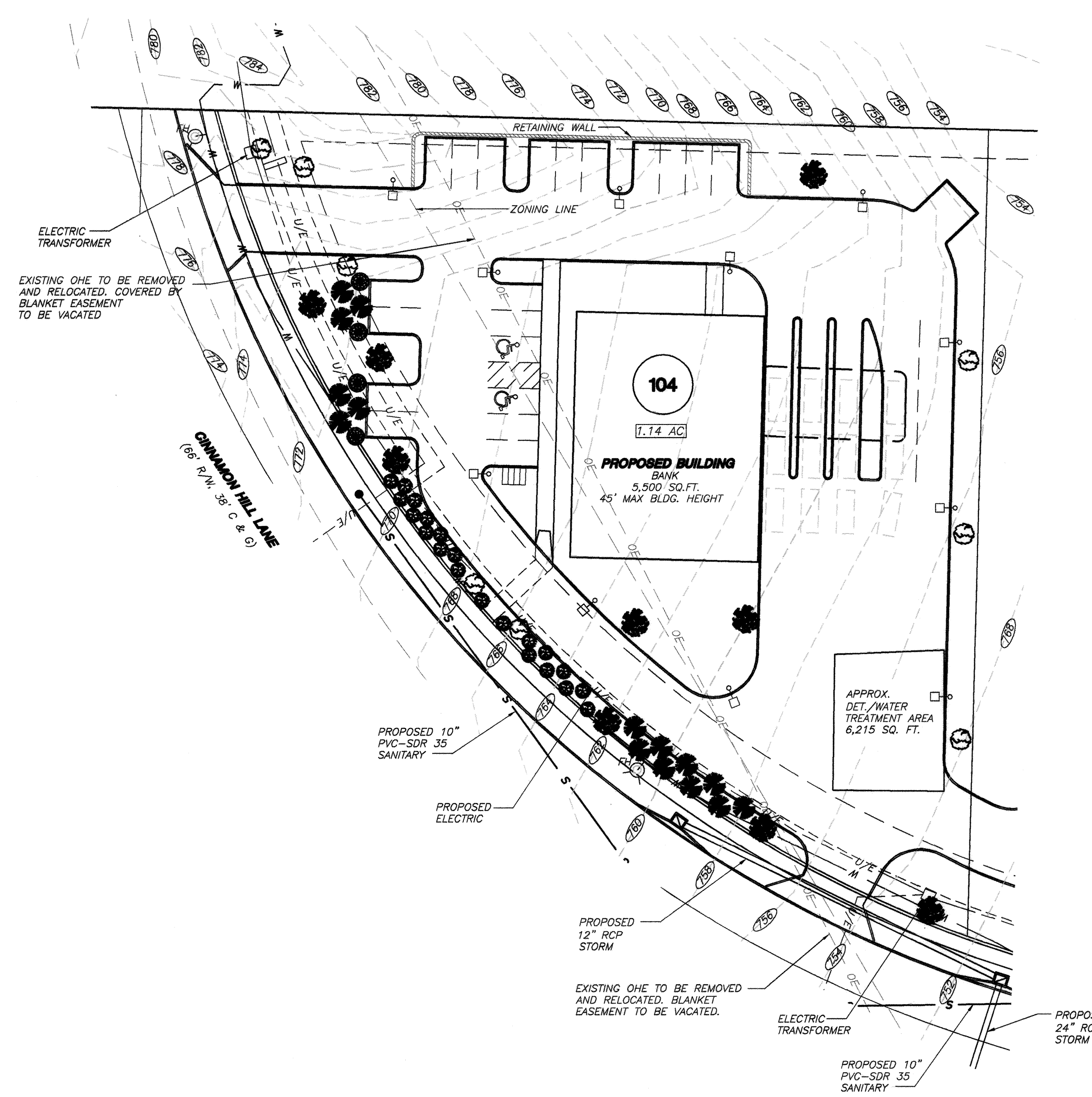
### STORMWATER MANAGEMENT

1. IT IS THE INTENT OF THIS PLAN TO CAPTURE THE RUNOFF FROM THE IMPROVED SITE AND DETAIN THE PEAK RUNOFF TO PRE-DEVELOPMENT LEVELS FOR THE Q1, Q2, Q10 AND Q100 DESIGN STORMS. THE Q1 DESIGN STORM SHALL ALSO BE TREATED TO OBTAIN THE APPROPRIATE WATER QUALITY LEVEL OF SERVICE. ONE OF TWO FOLLOWING METHODS MAY BE USED TO ACHIEVE THESE GOALS:

A. THE USE OF PERVIOUS/POROUS PAVEMENT IN PORTIONS OF THE PARKING LOT. THIS TYPE OF PAVEMENT REDUCES THE TOTAL IMPERVIOUS AREA OF THE SITE AND FUNCTIONS AS THE STORM WATER SYSTEM INLET. WITH THIS TYPE OF SYSTEM A GRANULAR STORAGE/FILTRATION BED IS PLACED UNDER THE PERVIOUS/POROUS PAVEMENT FOR DETENTION AND TO ALLOW FOR GROUND WATER RECHARGE. SMALLER DIAMETER PVC PIPES WITHIN THE GRANULAR BED ALLOW FOR EXCESS RETAINED WATER TO DRAIN TO THE PUBLIC STORM SEWER SYSTEM.

B. THE USE OF GUTTERS AND INLETS TO INTERCEPT AND DRAIN RUNOFF TO UNDERGROUND STORAGE TANKS/VAULTS. WITH THIS TYPE OF SYSTEM THE RUNOFF IS DETAINED IN THE STORAGE TANKS/VAULTS AND IS THEN ROUTED TO A MECHANICAL SEPERATION AND FILTRATION DEVICE WHICH TREATS THE RUNOFF PRIOR TO DRAINING TO THE PUBLIC STORM SEWER SYSTEM.

2. ALL STORMWATER MANAGEMENT FACILITIES SHALL BE DESIGNED IN ACCORDANCE WITH CHAPTER 12A AND THE STORMWATER MANAGEMENT AND WATER QUALITY MANUAL OF THE CITY OF COLUMBIA. SUCH FINAL DESIGN SHALL BE PROVIDED BY THE ENGINEER THAT PROVIDES THE FINAL SITE CONSTRUCTION PLANS.



### LEGEND

- WM = EXISTING WATER METER
- GP = GUARD POST
- FH = EXISTING FIRE HYDRANT
- WV = EXISTING WATER VALVE
- ♿ = HANDICAPPED PARKING
- ♿ = HANDICAPPED PARKING SIGN
- E = EXISTING IRON PIPE
- S = SET-IRON
- (R) = REMOVE
- (REC.) = RECORD
- M.H. = EXISTING SANITARY MANHOLE
- CO = EXISTING SANITARY CLEANOUT
- = PROPOSED SANITARY MANHOLE
- = PROPOSED SANITARY CLEANOUT
- LP = LIGHT POLE
- PP = POWER POLE
- = GUY WIRE
- T — = EXISTING TELEPHONE
- G — = EXISTING GUARDRAIL
- G — = EXISTING GAS
- OE — = EXISTING OVER-HEAD ELECTRIC
- S — = EXISTING SANITARY
- W — = EXISTING WATER
- U/E — = EXISTING UNDERGROUND ELECTRIC
- W — = EXISTING WATER
- S — = PROPOSED SANITARY
- T — = PROPOSED UNDERGROUND TELEPHONE
- = PROPOSED STORM SEWER
- = FLOWLINE (E)
- G — = PROPOSED GAS
- U/E — = PROPOSED UNDERGROUND ELECTRIC
- W — = PROPOSED WATER
- = ROOF DRAIN
- X — = EXISTING FENCE
- X — = PROPOSED FENCE
- 700 — = EXISTING CONTOUR
- 700 — = FLOWLINE (E)
- = EXISTING TREELINE
- = PRESERVED TREELINE

### CROSSCREEK CENTER C-P STORMWATER MANAGEMENT/LANDSCAPING - LOT 104

JAY LEONARD, M.O. E-25052

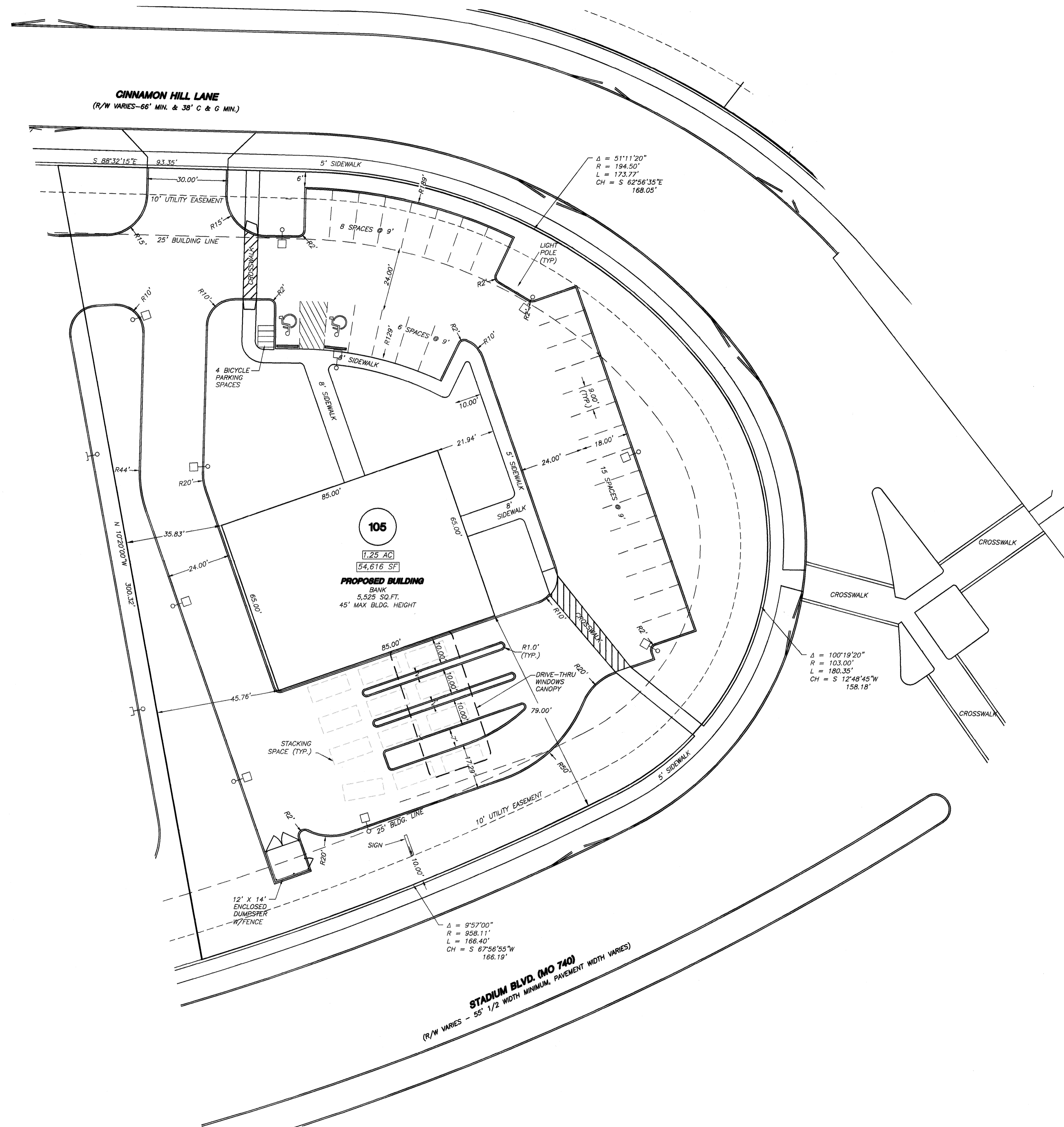
**A CIVIL GROUP**  
CIVIL ENGINEERING, PLANNING, SURVEYING  
1123 WILKES BLVD., SUITE 450  
COLUMBIA, MD 21021  
PHONE: (371)811-5750, FAX: (371)811-1471

DRAWN BY:	JDC	DATE:	06/26/08
ENGR:	JAG	PK:	KPM
DRAWING NO.:	KEAR08-07		
NO.	DATE	DESCRIPTION	BY
JOB NO.:		KEAR08.07	SHEET 9 of 27

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C-P DEVELOPMENT PLAN  
**CROSSCREEK CENTER C-P**

JUNE 26, 2008



**PARKING DATA**

BUILDING LOT 105: BANK

**SPACES REQUIRED**  
 5,000 SQ. FT. PLUS 1,500 SQ. FT. FUTURE EXPANSION @  
 1 SP/300 SQ. FT. = 21.7 OR 22 SPACES  
 (2 HANDICAP/1 VAN ACCESSIBLE & 4 BIKE SPACES  
 INCLUDED IN ABOVE REQUIREMENTS).  
 PLUS 3 STACKING SPACES FOR EACH WINDOW (4  
 WINDOWS 12 SPACES REQUIRED)  
**34 TOTAL SPACES REQUIRED**

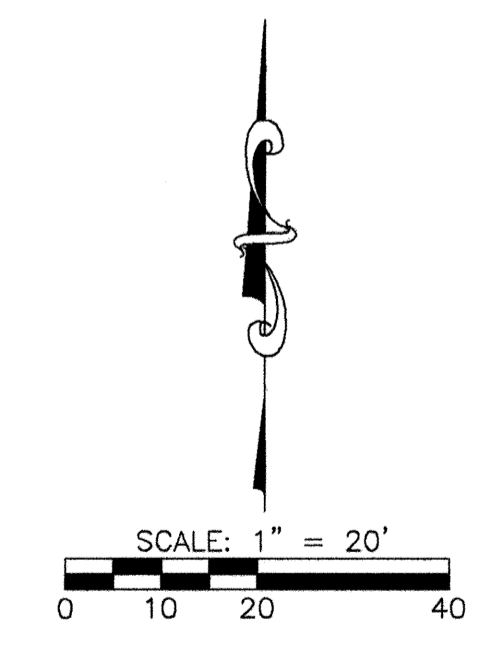
**SPACES PROVIDED**  
 29 PARKING SPACES (2 H.C. VAN ACCESS)  
 12 STACKING SPACES  
 4 BIKE SPACES  
**45 TOTAL SPACES PROVIDED**

**SIGNAGE**

LOT 105 SHALL HAVE ONE FREE STANDING MONUMENT  
 SIGN HAVING A MAXIMUM AREA OF 64 SQ.FT. AND A  
 MAXIMUM HEIGHT OF 8 FEET. WALL MOUNTED AND  
 DIRECTIONAL SIGNS SHALL BE DETERMINED AT A LATER  
 DATE AND SHALL CONFORM TO THE CITY OF COLUMBIA'S  
 SIGN ORDINANCE, CHAPTER 23, FOR C-3 ZONING.  
 REVISIONS TO SIGN LOCATION MAY BE APPROVED AS A  
 MINOR REVISION.

**LIGHTING**

LIGHT POLES SHOWN SHALL BE SEMI-CUTOFF SHOEBOX  
 FIXTURES, INWARD AND DOWNWARD DIRECTED, WHICH MAY  
 BE RELOCATED OR CHANGED IN TOTAL NUMBER BY THE  
 LIGHTING ENGINEER WITHOUT ADDITIONAL APPROVAL.  
 BUILDING MOUNTED LIGHTING IS UNKNOWN AT THIS TIME.  
 ALL OUTDOOR LIGHTING SHALL BE SHOWN ON A FUTURE  
 LIGHTING PLAN THAT WILL COMPLY WITH CHAPTER 29-30.1  
 OF THE CITY OF COLUMBIA CODE OF ORDINANCES WITH  
 THE EXCEPTION THAT THE MAXIMUM LIGHT POLE HEIGHT  
 SHALL BE 20 FT.



**CROSSCREEK CENTER C-P PLAN - LOT 105**

	A CIVIL GROUP CIVIL ENGINEERING, PLANNING, SURVEYING 1023 WILKES BLVD., SUITE 450 COLUMBIA, MD 21021 PHONE: (379)811-5750, FAX: (379)811-1171	
DRAWN BY: JAG ENGR: JAG NO. DATE DESCRIPTION BY JOB NO. KEAR08.07	DATE: 06/26/08 DATE: 06/26/08 DRAWING NO.: KEAR08-07 SHEET 10 OF 27	TAK KPM KEAR08.07

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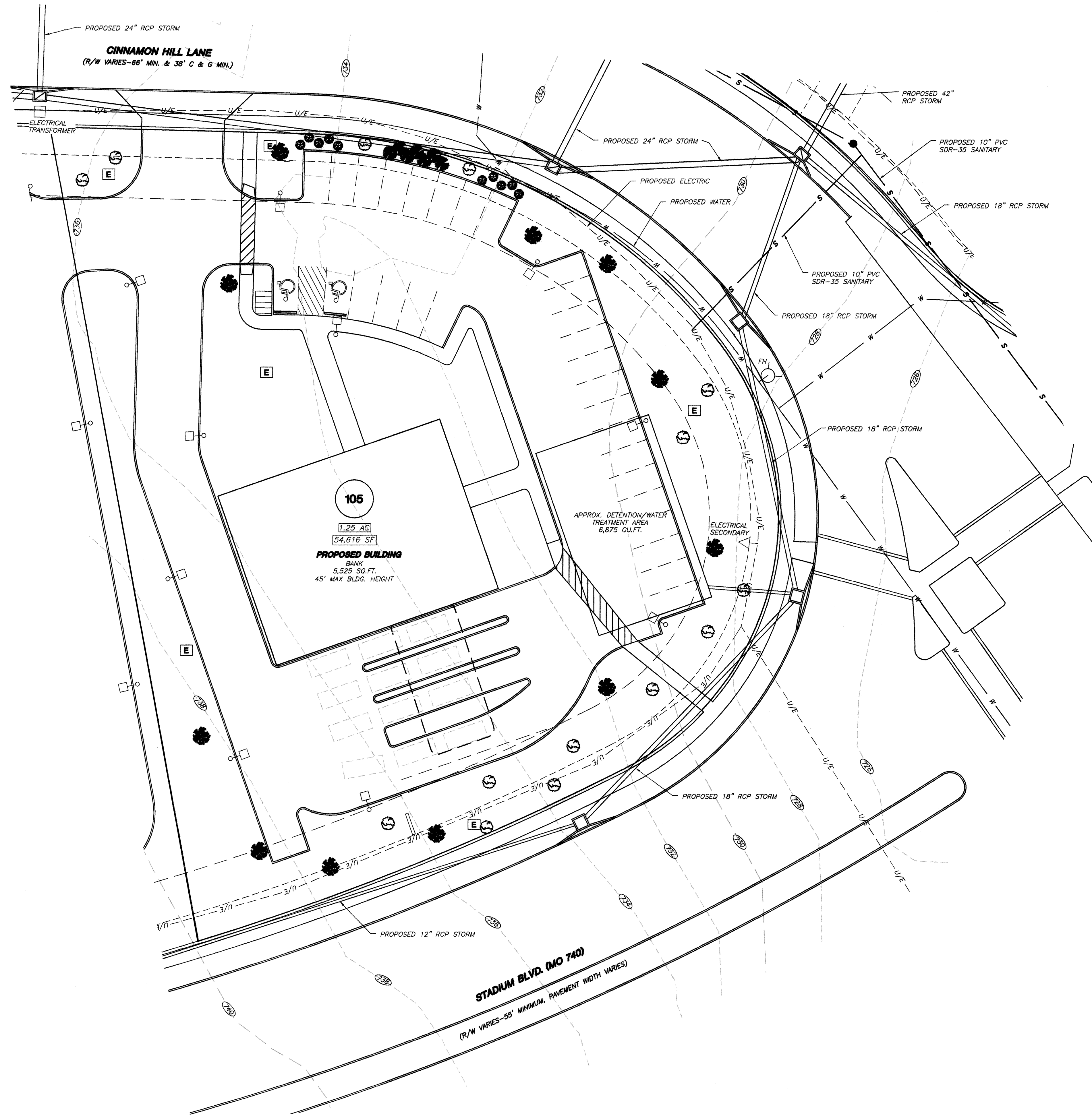
C-P DEVELOPMENT PLAN  
**CROSSCREEK CENTER C-P**

JUNE 26, 2008

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**LEGEND**

- WM EXISTING WATER METER
- GP GUARD POST
- FH EXISTING FIRE HYDRANT
- WV EXISTING WATER VALVE
- HANDICAPPED PARKING
- HANDICAPPED PARKING SIGN
- E EXISTING IRON PIPE
- S SET-IRON
- (R) REMOVE
- (REC.) RECORD
- M.H. EXISTING SANITARY MANHOLE
- CO EXISTING SANITARY CLEANOUT
- PROPOSED SANITARY MANHOLE
- PROPOSED SANITARY CLEANOUT
- LP LIGHT POLE
- PP POWER POLE
- GUY WIRE
- EXISTING TELEPHONE
- EXISTING GUARDRAIL
- EXISTING GAS
- EXISTING OVER-HEAD ELECTRIC
- EXISTING SANITARY
- EXISTING WATER
- EXISTING UNDERGROUND ELECTRIC
- EXISTING WATER
- PROPOSED SANITARY
- PROPOSED UNDERGROUND TELEPHONE
- PROPOSED STORM SEWER
- FLOWLINE (R)
- PROPOSED GAS
- PROPOSED UNDERGROUND ELECTRIC
- PROPOSED WATER
- ROOF DRAIN
- EXISTING FENCE
- PROPOSED FENCE
- EXISTING CONTOUR
- FLOWLINE (R)
- EXISTING TREELINE
- PRESERVED TREELINE



**LANDSCAPING/TREE PRESERVATION NOTES**

1. TOTAL AREA OF LOT= 1.25 AC. = 54,616 SQ.FT.  
 TOTAL PAVED AREA= 23,585 SQ.FT. (43%)  
 TOTAL BUILDING AREA= 5525 SQ.FT. (10%)  
 TOTAL IMPERVIOUS AREA= 29,110 SQ.FT. (53%)  
 TOTAL AREA OF LANDSCAPING= 25,506 SQ.FT. (47%)
2. ALL DISTURBED AREAS SHALL BE SEEDED & MULCHED AFTER CONSTRUCTION.
3. PAVED AREA = 23,026 SQ. FT. / 4,500 = 6 TREES REQUIRED.
4. STREET BUFFER = 103 LF OF PAVED AREA WITHIN 20' OF RIGHT-OF-WAY.  
 103 LF / 50' = 2 TREES  
 103 LF x 208' = 52 LF SCREENING  
 52 LF SCREENING / 3 LF PER SHRUB = 17 SHRUB/BUSHES  
 ALL SHRUBS/BUSHES TO BE A MIN. 3' IN HEIGHT
5. 30% OF TOTAL TREES = 8 MED./LG. SHADE TREES.  
 25 TREES TOTAL SHOWN ON SITE.
6. LANDSCAPING MAY BE ENHANCED BY THE DEVELOPER AS TIME AND BUDGET ALLOWS.
7. ALL STREET PERIMETER LANDSCAPING, THE MEDIAN ISLAND LANDSCAPING, LOT 110 AND LOT 112 LANDSCAPING AND ALL NATIVE GRASS RESTORATION AND REFORESTED AREAS SHALL BE DONE IN ACCORDANCE WITH THE MOST LANDSCAPING PLANS DATED MAY 20, 2008.

**PLANT SCHEDULE**

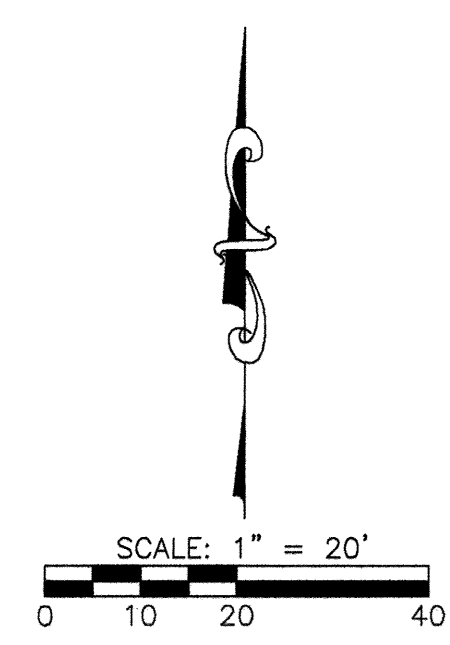
SYMBOL	QUANTITY	PLANT SPECIES	
A	10	LARGE DECIDUOUS SHRUB	5 GAL
B	7	EVERGREEN DECID. SHRUB	5 GAL
C	14	ORNAMENTAL TREE	2"
D	11	SHADE TREE (MED. - LG.)	2"
E	0.52 AC.	TURF GRASS	N/A
F	-	ORNAMENTAL GRASS	5' CLUMP

**TREE PRESERVATION NOTES**

REFER TO THE OVERALL C-P PLAN (SHEET 1) FOR TREE PRESERVATION DETAILS. TREE PRESERVATION SHALL BE SHOWN ON INDIVIDUAL SITES IF PRESENT.

**STORMWATER MANAGEMENT**

1. IT IS THE INTENT OF THIS PLAN TO CAPTURE THE RUNOFF FROM THE IMPROVED SITE AND DETAIN THE PEAK RUNOFF TO PRE-DEVELOPMENT LEVELS FOR THE Q1, Q2, Q10 AND Q100 DESIGN STORMS. THE Q1 DESIGN STORM SHALL ALSO BE TREATED TO OBTAIN THE APPROPRIATE WATER QUALITY LEVEL OF SERVICE. ONE OF TWO FOLLOWING METHODS MAY BE USED TO ACHIEVE THESE GOALS:
  - A. THE USE OF PERVIOUS/POROUS PAVEMENT IN PORTIONS OF THE PARKING LOT. THIS TYPE OF PAVEMENT REDUCES THE TOTAL IMPERVIOUS AREA OF THE SITE AND FUNCTIONS AS THE STORM WATER SYSTEM INLET. WITH THIS TYPE OF SYSTEM A GRANULAR STORAGE/FILTRATION BED IS PLACED UNDER THE PERVIOUS/POROUS PAVEMENT FOR DETENTION AND TO ALLOW FOR GROUND WATER RECHARGE. SMALLER DIAMETER PVC PIPES WITHIN THE GRANULAR BED ALLOW FOR EXCESS RETAINED WATER TO DRAIN TO THE PUBLIC STORM SEWER SYSTEM.
  - B. THE USE OF GUTTERS AND INLETS TO INTERCEPT AND DRAIN RUNOFF TO UNDERGROUND STORAGE TANKS/VAULTS. WITH THIS TYPE OF SYSTEM THE RUNOFF IS DETAINED IN THE STORAGE TANKS/VAULTS AND IS THEN ROUTED TO A MECHANICAL SEPARATION AND FILTRATION DEVICE WHICH TREATS THE RUNOFF PRIOR TO DRAINING TO THE PUBLIC STORM SEWER SYSTEM.
2. ALL STORMWATER MANAGEMENT FACILITIES SHALL BE DESIGNED IN ACCORDANCE WITH CHAPTER 124 AND THE STORMWATER MANAGEMENT AND WATER QUALITY MANUAL OF THE CITY OF COLUMBIA. SUCH FINAL DESIGN SHALL BE PROVIDED BY THE ENGINEER THAT PROVIDES THE FINAL SITE CONSTRUCTION PLANS.

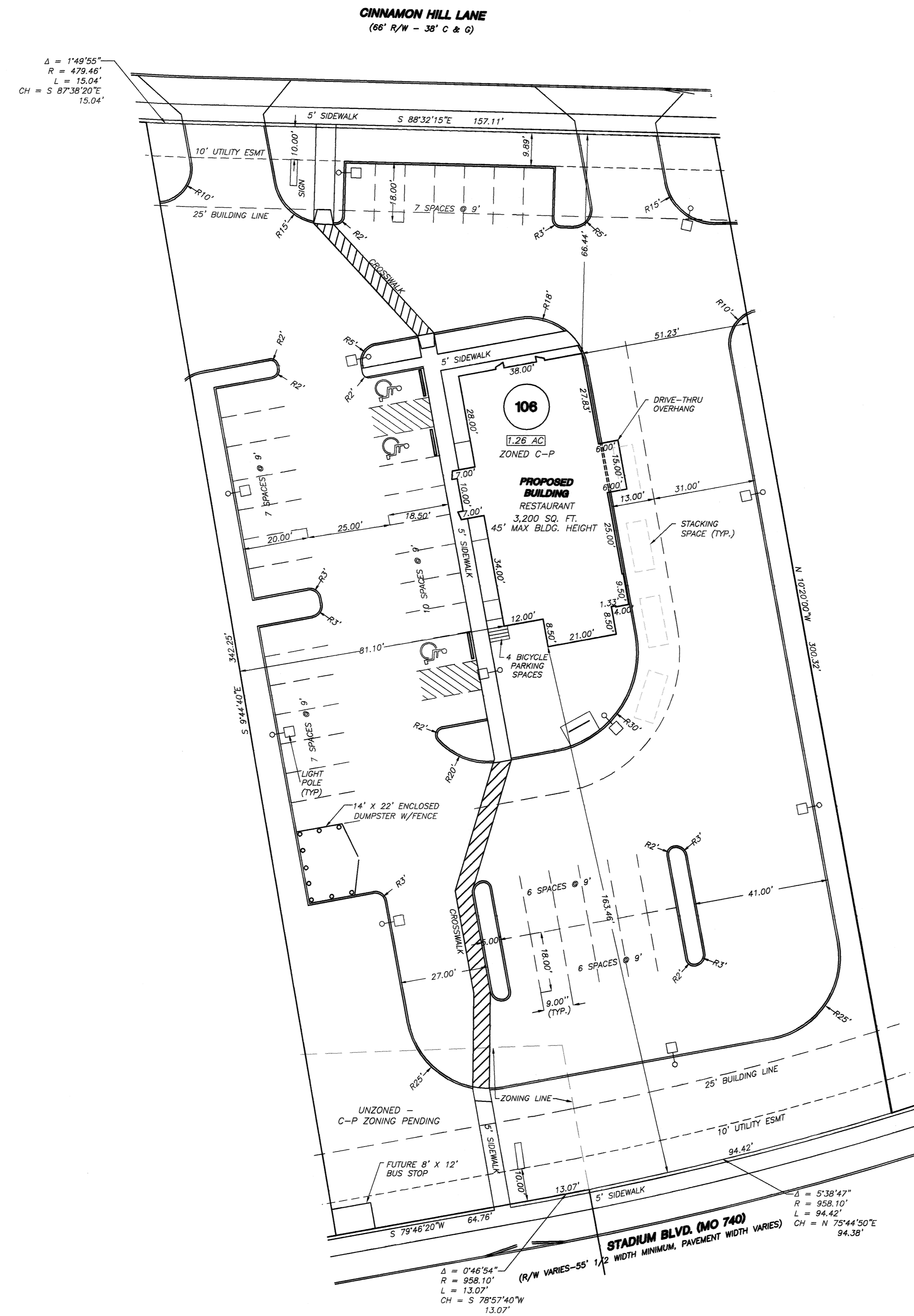


**CROSSCREEK CENTER C-P  
 STORM AND LANDSCAPING PLAN - LOT 105**

	<p><b>A CIVIL GROUP</b>          CIVIL ENGINEERING, PLANNING, SURVEYING          1123 WILKES BLVD., SUITE 450          COLUMBIA, MD 21021          PHONE: (579)811-5750, FAX: (579)811-1471</p>
DRAWN BY: <b>TAK</b> DATE: <b>06/26/08</b> ENGR: <b>JAG</b> PK: <b>KPM</b> DRAWING NO.: <b>KEAR08-07</b> JOB NO.: <b>KEAR08.07</b> SHEET <b>11</b> OF <b>27</b>	

C-P DEVELOPMENT PLAN  
**CROSSCREEK CENTER C-P**

JUNE 26, 2008



$\Delta = 1^{\circ}49'55''$   
 $R = 479.46'$   
 $L = 15.04'$   
 $CH = S 87^{\circ}38'20''E$   
 $15.04'$

**CINNAMON HILL LANE**  
 (66' R/W - 38' C & G)

N 102°20'00"W  
 300.32'

$\Delta = 0^{\circ}46'54''$   
 $R = 958.10'$   
 $L = 13.07'$   
 $CH = S 78^{\circ}57'40''W$   
 $13.07'$

**STADIUM BLVD. (MO 740)**  
 (R/W VARIES-55' 1/2 WIDTH MINIMUM. PAVEMENT WIDTH VARIES)

$\Delta = 5^{\circ}38'47''$   
 $R = 958.10'$   
 $L = 94.42'$   
 $CH = N 75^{\circ}44'30''E$   
 $94.38'$

**PARKING DATA**

**BUILDING LOT 106 RESTAURANT**

**SPACES REQUIRED**  
 3,200 SQ. FT. @ 1 SP/100 SQ. FT. = 32 SPACES  
 (INCLUDING 2 HANDICAP 1 W/VAN ACCESS AND 4 BICYCLE SPACES).  
 4 STACKING SPACES  
**36 TOTAL SPACES REQUIRED**

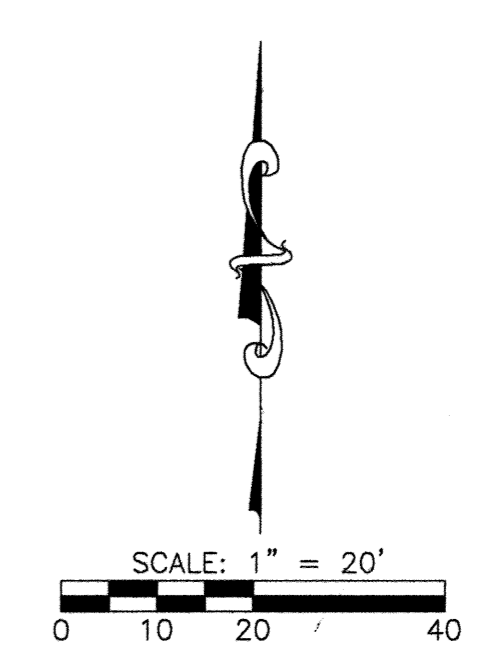
**SPACES PROVIDED**  
 43 PARKING SPACES (3 H.C. VAN ACCESS)  
 4 BICYCLE SPACES PROVIDED.  
 4 STACKING SPACES  
**51 TOTAL SPACES PROVIDED**

**SIGNAGE**

LOT 106 SHALL HAVE ONE FREE STANDING MONUMENT SIGN HAVING A MAXIMUM AREA OF 64 SQ.FT. AND A MAXIMUM HEIGHT OF 8 FEET. WALL MOUNTED AND DIRECTIONAL SIGNS SHALL BE DETERMINED AT A LATER DATE AND SHALL CONFORM TO THE CITY OF COLUMBIA'S SIGN ORDINANCE, CHAPTER 23, FOR C-3 ZONING. REVISIONS TO SIGN LOCATION MAY BE APPROVED AS A MINOR REVISION.

**LIGHTING**

LIGHT POLES SHOWN SHALL BE SEMI-CUTOFF SHOEBOX FIXTURES, INWARD AND DOWNWARD DIRECTED, WHICH MAY BE RELOCATED OR CHANGED IN TOTAL NUMBER BY THE LIGHTING ENGINEER WITHOUT ADDITIONAL APPROVAL. BUILDING MOUNTED LIGHTING IS UNKNOWN AT THIS TIME. ALL OUTDOOR LIGHTING SHALL BE SHOWN ON A FUTURE LIGHTING PLAN THAT WILL COMPLY WITH CHAPTER 29-30.1 OF THE CITY OF COLUMBIA CODE OF ORDINANCES WITH THE EXCEPTION THAT THE MAXIMUM LIGHT POLE HEIGHT SHALL BE 20 FT.



**SITE PLAN - CROSSCREEK CENTER CP - LOT 106**

		DRAWN BY: <b>TAK</b>	DATE: <b>06/26/08</b>
		ENGR: <b>JAG</b>	PK: <b>KPM</b>
JOB NO.: <b>KEAR08-07</b>		SHEET <b>12</b> OF <b>27</b>	

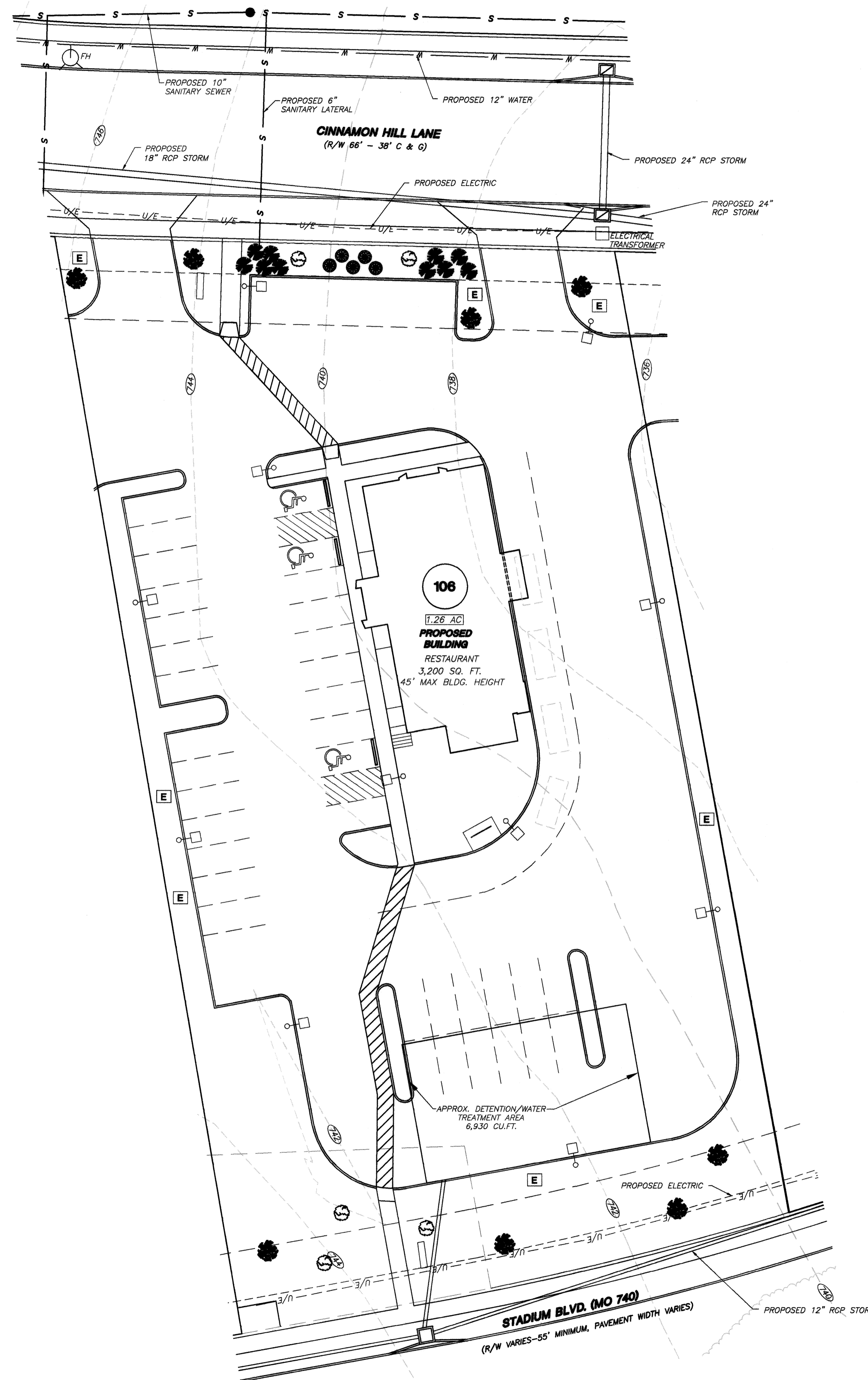
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C-P DEVELOPMENT PLAN  
**CROSSCREEK CENTER C-P**

JUNE 26, 2008

**LEGEND**

- WM = EXISTING WATER METER
- GP = GUARD POST
- FH = EXISTING FIRE HYDRANT
- WV = EXISTING WATER VALVE
- ♿ = HANDICAPPED PARKING
- ♿ = HANDICAPPED PARKING SIGN
- E = EXISTING IRON PIPE
- S = SET-IRON
- (R) = REMOVE
- (REC.) = RECORD
- M.H. = EXISTING SANITARY MANHOLE
- CO = EXISTING SANITARY CLEANOUT
- = PROPOSED SANITARY MANHOLE
- = PROPOSED SANITARY CLEANOUT
- LP = LIGHT POLE
- PP = POWER POLE
- = GUY WIRE
- T — = EXISTING TELEPHONE
- G — = EXISTING GUARDRAIL
- G — = EXISTING GAS
- OE — = EXISTING OVER-HEAD ELECTRIC
- S — = EXISTING SANITARY
- W — = EXISTING WATER
- U/E — = EXISTING UNDERGROUND ELECTRIC
- W — = EXISTING WATER
- S — = EXISTING WATER
- T — T — = PROPOSED TELEPHONE
- T — T — = PROPOSED STORM SEWER
- ... — = FLOWLINE (R)
- G — = PROPOSED GAS
- U/E — = PROPOSED UNDERGROUND ELECTRIC
- W — = PROPOSED WATER
- — = ROOF DRAIN
- - - X - - - = EXISTING FENCE
- - - X - - - = PROPOSED FENCE
- 700 — — = EXISTING CONTOUR
- 700 — ... — = FLOWLINE (R)
- 700 — — — = EXISTING TREELINE
- 700 — — — = PRESERVED TREELINE



**TREE PRESERVATION**

TREE PRESERVATION IS SHOWN AS PER THE APPROVED TREE PRESERVATION PLAN DATED SEPTEMBER 14, 2007. THERE ARE NO TREES TO BE PRESERVED ON THIS LOT.

**LANDSCAPING/TREE PRESERVATION NOTES**

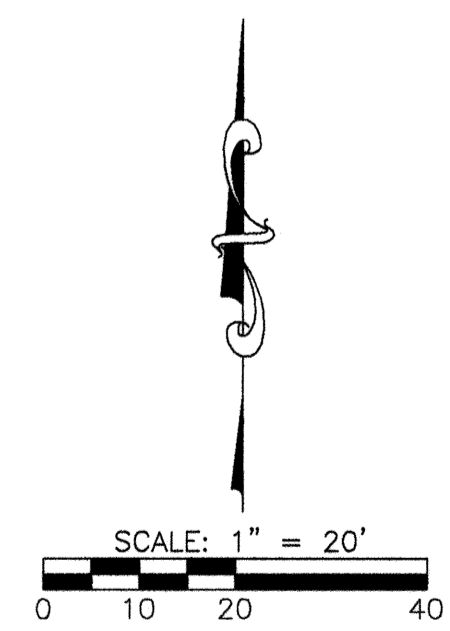
1. TOTAL AREA OF LOT = 1.26 AC. = 54,885 SQ.FT.  
 TOTAL PAVED AREA = 39,938 SQ.FT. (73%)  
 TOTAL FUTURE BUILDING AREA = 3,200 SQ.FT. (6%)  
 TOTAL IMPERVIOUS AREA = 43,138 SQ.FT. (79%)  
 TOTAL AREA OF LANDSCAPING = 11,747 SQ.FT. (21%)
2. ALL DISTURBED AREAS SHALL BE SEEDED & MULCHED AFTER CONSTRUCTION.
3. PAVED AREA = 39,938 SQ. FT. / 4,500 = 9 TOTAL TREES REQUIRED.  
 17 TOTAL TREES PROVIDED.
4. STREET BUFFER = 65 LF OF PAVED AREA WITHIN 20' OF RIGHT-OF-WAY.  
 65 LF / 50' = 1.3 OR 2 TREES  
 65 LF X 50% = 32.5 LF SCREENING  
 32.5 LF SCREENING / 3 LF PER SHRUB = 11 SHRUB/BUSHES  
 ALL SHRUBS/BUSHES TO BE A MIN. 3' IN HEIGHT
5. 30% OF TOTAL TREES = 3 MED./LG. SHADE TREES.  
 10 SHADE TREES SHOWN ON SITE.
6. LANDSCAPING MAY BE ENHANCED BY THE DEVELOPER AS TIME AND BUDGET ALLOWS.

**PLANT SCHEDULE**

SYMBOL	QUANTITY	PLANT SPECIES	
A	0	LARGE DECIDUOUS SHRUB	5 GAL
B	10	EVERGREEN SHRUB	5 GAL
C	7	ORNAMENTAL TREE	2"
D	10	SHADE TREE (MED. - LG.)	2"
E	0.28 AC.	TURF GRASS	N/A
F	5	ORNAMENTAL GRASS	5' CLUMP

**STORMWATER MANAGEMENT**

1. IT IS THE INTENT OF THIS PLAN TO CAPTURE THE RUNOFF FROM THE IMPROVED SITE AND DETAIN THE PEAK RUNOFF TO PRE-DEVELOPMENT LEVELS FOR THE 01, 02, 010 AND 0100 DESIGN STORMS. THE 01 DESIGN STORM SHALL ALSO BE TREATED TO OBTAIN THE APPROPRIATE WATER QUALITY LEVEL OF SERVICE. ONE OF TWO FOLLOWING METHODS MAY BE USED TO ACHIEVE THESE GOALS:
  - A. THE USE OF PERVIOUS/POROUS PAVEMENT IN PORTIONS OF THE PARKING LOT. THIS TYPE OF PAVEMENT REDUCES THE TOTAL IMPERVIOUS AREA OF THE SITE AND FUNCTIONS AS THE STORM WATER SYSTEM INLET. WITH THIS TYPE OF SYSTEM A GRANULAR STORAGE/FILTRATION BED IS PLACED UNDER THE PERVIOUS/POROUS PAVEMENT FOR DETENTION AND TO ALLOW FOR GROUND WATER RECHARGE. SMALLER DIAMETER PVC PIPES WITHIN THE GRANULAR BED ALLOW FOR EXCESS RETAINED WATER TO DRAIN TO THE PUBLIC STORM SEWER SYSTEM.
  - B. THE USE OF GUTTERS AND INLETS TO INTERCEPT AND DRAIN RUNOFF TO UNDERGROUND STORAGE TANKS/VAULTS. WITH THIS TYPE OF SYSTEM THE RUNOFF IS DETAINED IN THE STORAGE TANKS/VAULTS AND IS THEN ROUTED TO A MECHANICAL SEPERATION AND FILTRATION DEVICE WHICH TREATS THE RUNOFF PRIOR TO DRAINING TO THE PUBLIC STORM SEWER SYSTEM.
2. ALL STORMWATER MANAGEMENT FACILITIES SHALL BE DESIGNED IN ACCORDANCE WITH CHAPTER 12A AND THE STORMWATER MANAGEMENT AND WATER QUALITY MANUAL OF THE CITY OF COLUMBIA. SUCH FINAL DESIGN SHALL BE PROVIDED BY THE ENGINEER THAT PROVIDES THE FINAL SITE CONSTRUCTION PLANS.



**CROSSCREEK CENTER C-P  
 STORM AND LANDSCAPING PLAN - LOT 106**

JAY GEBHARDT MD E-25052

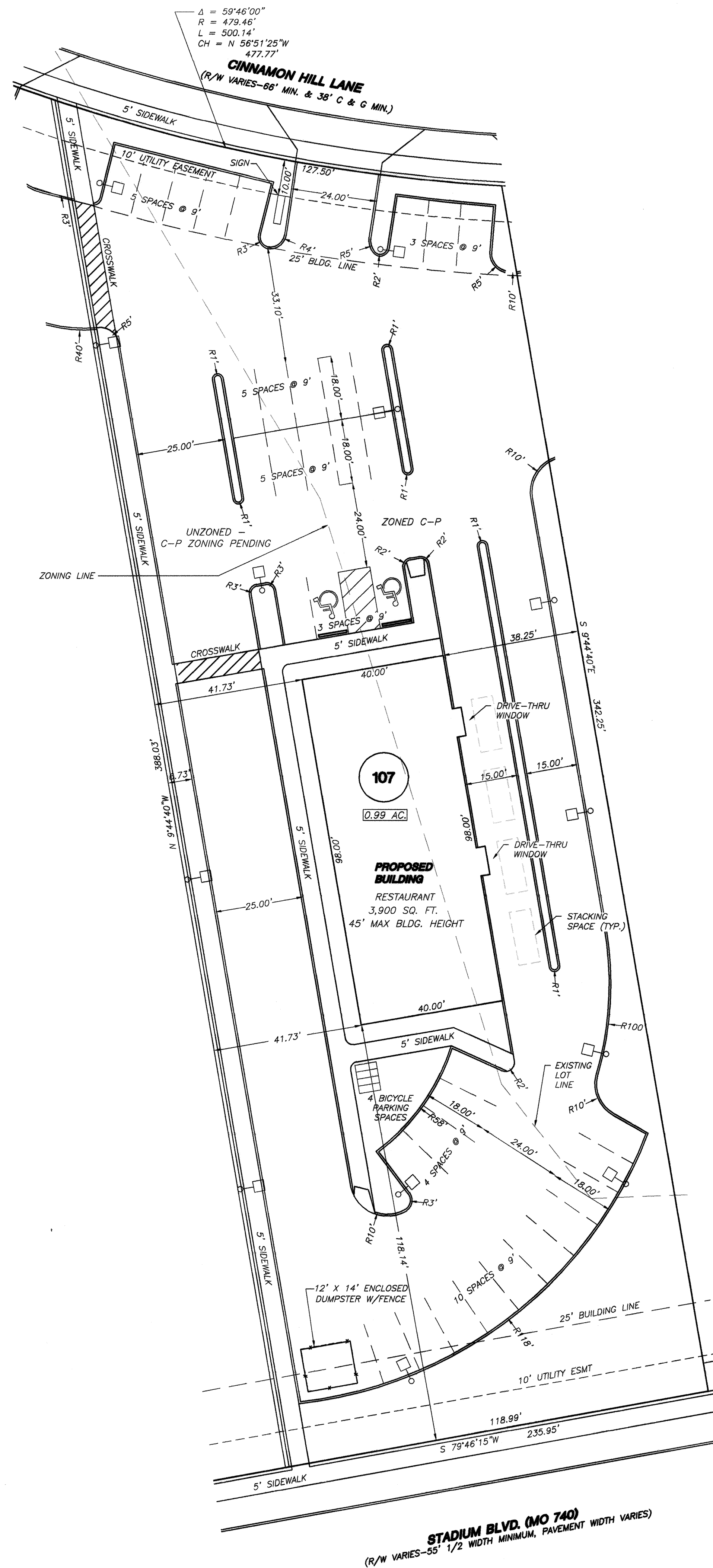
**A CIVIL GROUP**  
 CIVIL ENGINEERING, PLANNING, SURVEYING  
 1123 WILKES BLVD., SUITE 450  
 COLUMBIA, MD 21020  
 PHONE: (301)811-5750, FAX: (301)811-1071

NO.	DATE	DESCRIPTION	BY	JOB NO.	KEYAR08-07	SHEET	13	OF	27
		DRAWN BY:	TAK	DATE:	06/26/08				
		ENGR:	JAG	PK:	KPM	DRAWING NO.:	KEYAR08-07		

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# CROSSCREEK CENTER C-P

JUNE 26, 2008



### PARKING DATA

#### BUILDINGS LOT 107 RESTAURANT

**SPACES REQUIRED**

3900 SQ. FT @ 1 SP/100 SQ. FT. = 39 SPACES (2 HANDICAP W/VAN ACCESS PLUS 4 BIKE SPACES INCLUDED IN ABOVE TOTAL)

4 STACKING SPACES @ WINDOW

**43 TOTAL SPACES REQUIRED**

**SPACES PROVIDED**

35 PARKING SPACES (2 H.C. VAN ACCESS)

4 STACKING SPACES @ WINDOW

4 BICYCLE SPACES PROVIDED

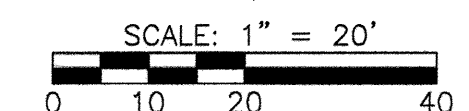
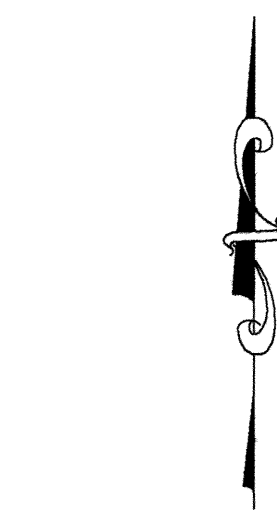
**43 TOTAL SPACES PROVIDED**

### SIGNAGE

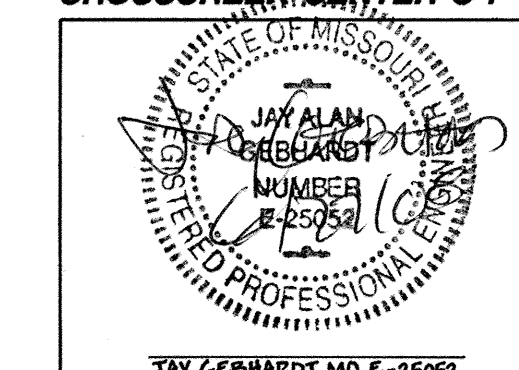
LOT 107 SHALL HAVE ONE FREE STANDING MONUMENT SIGN HAVING A MAXIMUM AREA OF 64 SQ.FT. AND A MAXIMUM HEIGHT OF 8 FEET. WALL MOUNTED AND DIRECTIONAL SIGNS SHALL BE DETERMINED AT A LATER DATE AND SHALL CONFORM TO THE CITY OF COLUMBIA'S SIGN ORDINANCE, CHAPTER 23, FOR C-3 ZONING. REVISIONS TO SIGN LOCATION MAY BE APPROVED AS A MINOR REVISION.

### LIGHTING

LIGHT POLES SHOWN SHALL BE SEMI-CUTOFF SHOEBOX FIXTURES, INWARD AND DOWNWARD DIRECTED, WHICH MAY BE RELOCATED OR CHANGED IN TOTAL NUMBER BY THE LIGHTING ENGINEER WITHOUT ADDITIONAL APPROVAL. BUILDING MOUNTED LIGHTING IS UNKNOWN AT THIS TIME. ALL OUTDOOR LIGHTING SHALL BE SHOWN ON A FUTURE LIGHTING PLAN THAT WILL COMPLY WITH CHAPTER 28-30.1 OF THE CITY OF COLUMBIA CODE OF ORDINANCES WITH THE EXCEPTION THAT THE MAXIMUM LIGHT POLE HEIGHT SHALL BE 20 FT.



### CROSSCREEK CENTER C-P PLAN - LOT 107



**A CIVIL GROUP**

CIVIL ENGINEERING, PLANNING, SURVEYING

1123 NIKLES BLVD., SUITE 450

COLUMBIA, MD 21021

PHONE: (379)811-5750, FAX: (379)811-1471

DATE:	06/26/08
DRAWN BY:	TAK
ENGR:	JAG
PK:	KPM
DRAWING NO.:	KEAR08-07
JOB NO.:	KEAR08.07
BY:	
NO.:	
DATE:	
DESCRIPTION:	
BY:	
JOB NO.:	
SHEET:	14 OF 27

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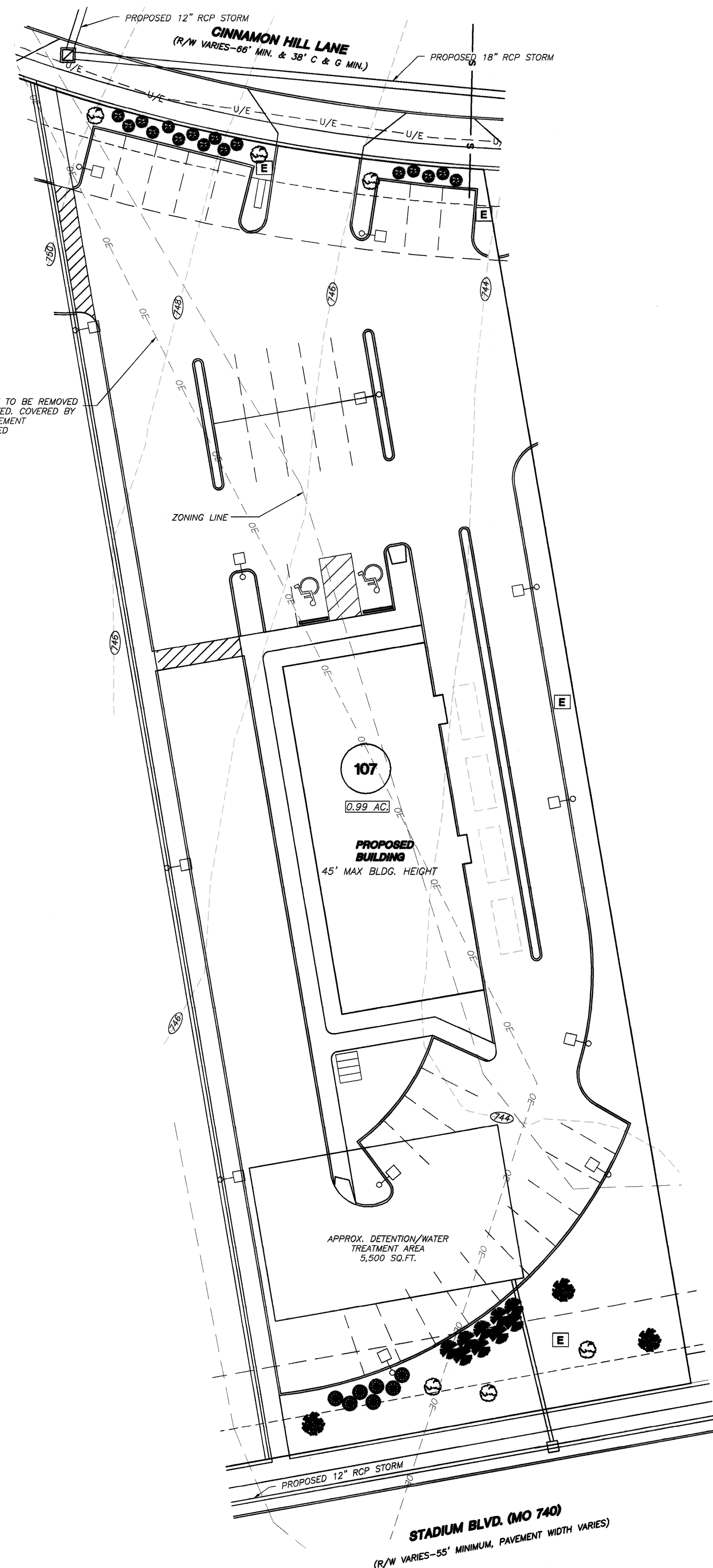
# CROSSCREEK CENTER C-P

JUNE 26, 2008

### LEGEND

- WM = EXISTING WATER METER
- GP = GUARD POST
- FH = EXISTING FIRE HYDRANT
- WV = EXISTING WATER VALVE
- HANDICAPPED PARKING
- HANDICAPPED PARKING SIGN
- E = EXISTING IRON PIPE
- S = SET-IRON
- (R) REMOVE
- (REC.) RECORD
- M.H. = EXISTING SANITARY MANHOLE
- CO = EXISTING SANITARY CLEANOUT
- PROPOSED SANITARY MANHOLE
- PROPOSED SANITARY CLEANOUT
- LP = LIGHT POLE
- PP = POWER POLE
- GUY WIRE
- EXISTING TELEPHONE
- EXISTING GUARDRAIL
- EXISTING GAS
- EXISTING OVER-HEAD ELECTRIC
- EXISTING SANITARY
- EXISTING WATER
- EXISTING UNDERGROUND ELECTRIC
- EXISTING WATER
- PROPOSED SANITARY
- PROPOSED UNDERGROUND TELEPHONE
- PROPOSED STORM SEWER
- FLOWLINE (E)
- PROPOSED GAS
- PROPOSED UNDERGROUND ELECTRIC
- PROPOSED WATER
- ROOF DRAIN
- EXISTING FENCE
- PROPOSED FENCE
- EXISTING CONTOUR
- FLOWLINE (E)
- EXISTING TREELINE
- PRESERVED TREELINE

EXISTING ONE TO BE REMOVED AND RELOCATED. COVERED BY BLANKET EASEMENT TO BE VACATED



### LANDSCAPING/TREE PRESERVATION NOTES

1. TOTAL AREA OF LOT= 0.99 AC. = 43,090 SQ.FT.  
TOTAL PAVED AREA= 30,389 SQ.FT. (71%)  
TOTAL FUTURE BUILDING AREA= 3,900 SQ.FT. (9%)  
TOTAL IMPERVIOUS AREA= 34,289 SQ.FT. (80%)  
TOTAL AREA OF LANDSCAPING= 8,801 SQ.FT. (20%)
2. ALL DISTURBED AREAS SHALL BE SEEDED & MULCHED AFTER CONSTRUCTION.
3. PAVED AREA = 30,389 SQ. FT. / 4,500 = 7 TREES REQUIRED.
4. STREET BUFFER = 125 LF OF PAVED AREA WITHIN 20' OF RIGHT-OF-WAY.  
125 LF / 50' = 3 TREES  
125 LF X 50% = 63 LF SCREENING  
63 LF SCREENING / 3 LF PER SHRUB = 21 SHRUB/BUSHES  
ALL SHRUBS/BUSHES TO BE A MIN. 3' IN HEIGHT
5. 30% OF TOTAL TREES = 4 MED./LG. SHADE TREES.  
13 TREES TOTAL SHOWN ON SITE.
6. LANDSCAPING MAY BE ENHANCED BY THE DEVELOPER AS TIME AND BUDGET ALLOWS.
7. ALL STREET PERIMETER LANDSCAPING, THE MEDIAN ISLAND LANDSCAPING, LOT 110 AND LOT 112 LANDSCAPING AND ALL NATIVE GRASS RESTORATION AND REFORESTED AREAS SHALL BE DONE IN ACCORDANCE WITH THE MOST LANDSCAPING PLANS DATED MAY 20, 2008.

### PLANT SCHEDULE

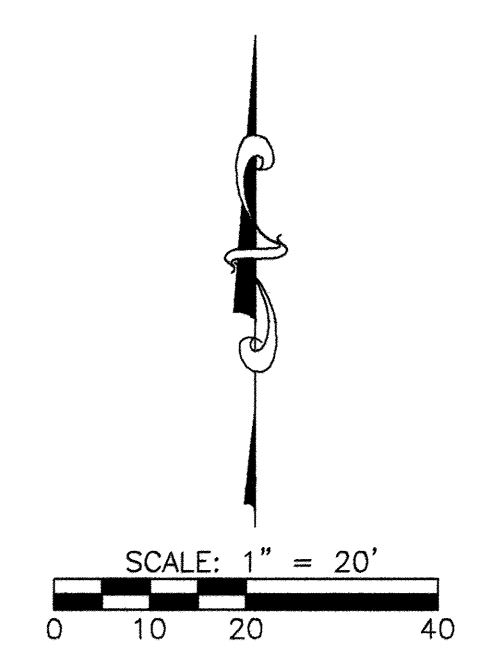
SYMBOL	QUANTITY	PLANT SPECIES
A	16	LARGE DECIDUOUS SHRUB 5 GAL
B	9	EVERGREEN DECID. SHRUB 5 GAL
C	9	ORNAMENTAL TREE 2"
D	4	SHADE TREE (MED. - LG.) 2"
E	0.14 AC.	TURF GRASS N/A
F	7	ORNAMENTAL GRASS 5' CLUMP

### TREE PRESERVATION NOTES

REFER TO THE OVERALL C-P PLAN (SHEET 1) FOR TREE PRESERVATION DETAILS. TREE PRESERVATION SHALL BE SHOWN ON INDIVIDUAL SITES IF PRESENT.

### STORMWATER MANAGEMENT

1. IT IS THE INTENT OF THIS PLAN TO CAPTURE THE RUNOFF FROM THE IMPROVED SITE AND DETAIN THE PEAK RUNOFF TO PRE-DEVELOPMENT LEVELS FOR THE Q1, Q2, Q10 AND Q100 DESIGN STORMS. THE Q1 DESIGN STORM SHALL ALSO BE TREATED TO OBTAIN THE APPROPRIATE WATER QUALITY LEVEL OF SERVICE. ONE OF TWO FOLLOWING METHODS MAY BE USED TO ACHIEVE THESE GOALS:
  - A. THE USE OF PERVIOUS/POROUS PAVEMENT IN PORTIONS OF THE PARKING LOT. THIS TYPE OF PAVEMENT REDUCES THE TOTAL IMPERVIOUS AREA OF THE SITE AND FUNCTIONS AS THE STORM WATER SYSTEM INLET. WITH THIS TYPE OF SYSTEM A GRANULAR STORAGE/FILTRATION BED IS PLACED UNDER THE PERVIOUS/POROUS PAVEMENT FOR DETENTION AND TO ALLOW FOR GROUND WATER RECHARGE. SMALLER DIAMETER PVC PIPES WITHIN THE GRANULAR BED ALLOW FOR EXCESS RETAINED WATER TO DRAIN TO THE PUBLIC STORM SEWER SYSTEM.
  - B. THE USE OF GUTTERS AND INLETS TO INTERCEPT AND DRAIN RUNOFF TO UNDERGROUND STORAGE TANKS/VAULTS. WITH THIS TYPE OF SYSTEM THE RUNOFF IS DETAINED IN THE STORAGE TANKS/VAULTS AND IS THEN ROUTED TO A MECHANICAL SEPARATION AND FILTRATION DEVICE WHICH TREATS THE RUNOFF PRIOR TO DRAINING TO THE PUBLIC STORM SEWER SYSTEM.
2. ALL STORMWATER MANAGEMENT FACILITIES SHALL BE DESIGNED IN ACCORDANCE WITH CHAPTER 12A AND THE STORMWATER MANAGEMENT AND WATER QUALITY MANUAL OF THE CITY OF COLUMBIA. SUCH FINAL DESIGN SHALL BE PROVIDED BY THE ENGINEER THAT PROVIDES THE FINAL SITE CONSTRUCTION PLANS.



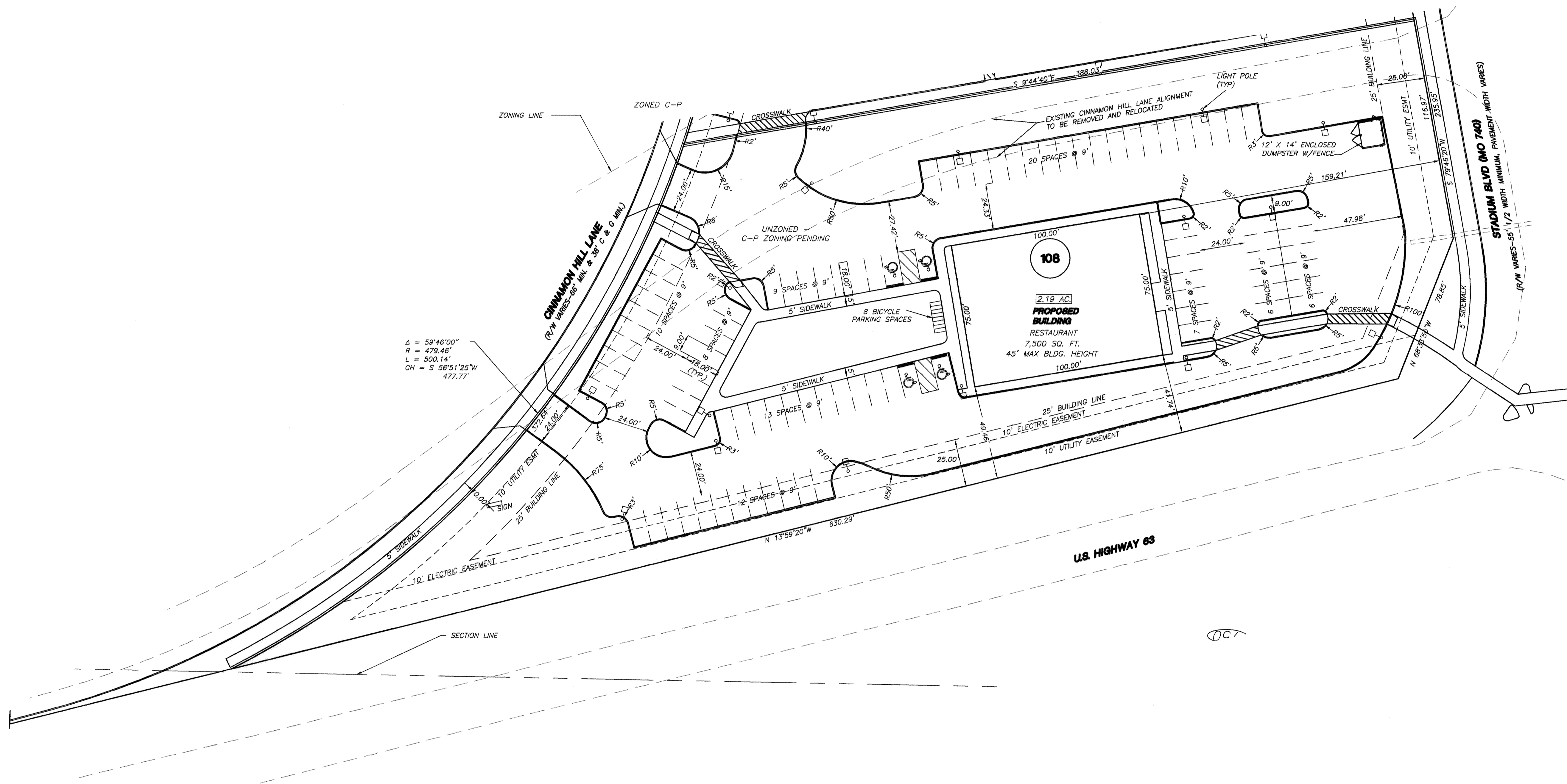
### CROSSCREEK CENTER C-P STORM AND LANDSCAPING PLAN - LOT 107

	A CIVIL GROUP CIVIL ENGINEERING, PLANNING, SURVEYING 1123 WILKES BLVD., SUITE 450 COLUMBIA, MD 21021 PHONE: (379)811-5750, FAX: (379)811-1471	
DRAWN BY: TAK ENGR: JAG PK: KPM	DATE: 06/26/08 DRAWING NO.: KEAR08-07	SHEET 15 OF 27

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C-P DEVELOPMENT PLAN  
**CROSSCREEK CENTER C-P**

JUNE 26, 2008



$\Delta = 59^{\circ}46'00''$   
 $R = 479.45'$   
 $L = 500.14'$   
 $CH = S 56^{\circ}51'25''W$   
 $477.77'$

**PARKING DATA**

**BUILDINGS LOT 108 RESTAURANT**

**SPACES REQUIRED**  
 7,500 SQ. FT. @ 1 SP/100 SQ. FT. = 75 SPACES. (3 HANDICAP,  
 1 W/VAN ACCESS PLUS 8 BIKE SPACES INCLUDED IN ABOVE TOTAL)  
**75 TOTAL SPACES REQUIRED**

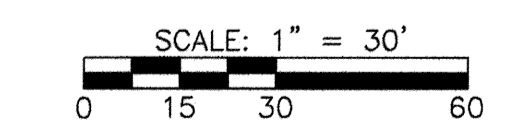
**SPACES PROVIDED**  
 91 PARKING SPACES (4 H.C. VAN ACCESS)  
 8 BICYCLE SPACES PROVIDED  
**99 TOTAL SPACES PROVIDED**

**SIGNAGE**

LOT 108 SHALL HAVE ONE FREE STANDING MONUMENT SIGN HAVING A MAXIMUM AREA OF 64 SQ. FT. AND A MAXIMUM HEIGHT OF 9 FEET. WALL MOUNTED AND DIRECTIONAL SIGNS SHALL BE DETERMINED AT A LATER DATE AND SHALL CONFORM TO THE CITY OF COLUMBIA'S SIGN ORDINANCE, CHAPTER 23, FOR C-3 ZONING. REVISIONS TO SIGN LOCATION MAY BE APPROVED AS A MINOR REVISION.

**LIGHTING**

LIGHT POLES SHOWN SHALL BE SEMI-CUTOFF SHOEBOX FIXTURES, INWARD AND DOWNWARD DIRECTED, WHICH MAY BE RELOCATED OR CHANGED IN TOTAL NUMBER BY THE LIGHTING ENGINEER WITHOUT ADDITIONAL APPROVAL. BUILDING MOUNTED LIGHTING IS UNKNOWN AT THIS TIME. ALL OUTDOOR LIGHTING SHALL BE SHOWN ON A FUTURE LIGHTING PLAN THAT WILL COMPLY WITH CHAPTER 29-30.1 OF THE CITY OF COLUMBIA CODE OF ORDINANCES WITH THE EXCEPTION THAT THE MAXIMUM LIGHT POLE HEIGHT SHALL BE 20 FT.



**CROSSCREEK CENTER C-P PLAN - LOT 108**

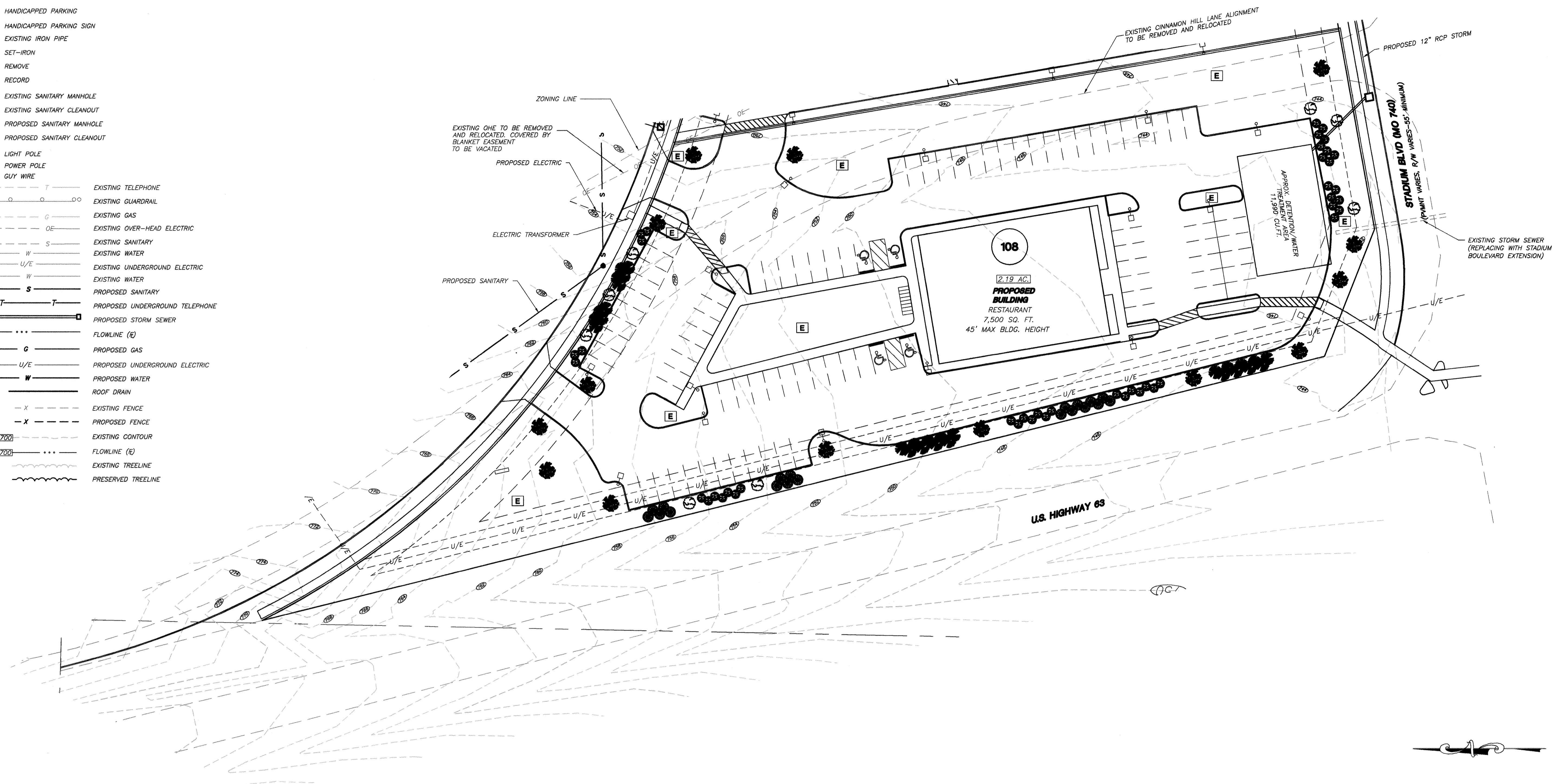
	<p><b>A CIVIL GROUP</b>                  CIVIL ENGINEERING, PLANNING, SURVEYING                  1123 WILKES BLVD., SUITE 450                  COLUMBIA, MD 21021                  PHONE: (410)871-5750, FAX: (410)871-1171</p>	
DRAWN BY: <b>TAK</b> ENGR: <b>JAG</b> <b>KPM</b>	DATE: <b>06/26/08</b> DRAWING NO.: <b>KEAR08-07</b>	SHEET <b>16</b> OF <b>27</b>
JOB NO.: <b>KEAR08.07</b>		

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**LEGEND**

- WM EXISTING WATER METER
- GP GUARD POST
- FH EXISTING FIRE HYDRANT
- WV EXISTING WATER VALVE
- HANDICAPPED PARKING
- HANDICAPPED PARKING SIGN
- E EXISTING IRON PIPE
- S SET-IRON
- (R) REMOVE
- (REC.) RECORD
- M.H. EXISTING SANITARY MANHOLE
- CO EXISTING SANITARY CLEANOUT
- PROPOSED SANITARY MANHOLE
- PROPOSED SANITARY CLEANOUT
- LP LIGHT POLE
- PP POWER POLE
- GUY WIRE
- EXISTING TELEPHONE
- EXISTING GUARDRAIL
- EXISTING GAS
- EXISTING OVER-HEAD ELECTRIC
- EXISTING SANITARY
- EXISTING WATER
- EXISTING UNDER-HEAD ELECTRIC
- EXISTING WATER
- PROPOSED SANITARY
- PROPOSED UNDER-HEAD ELECTRIC
- PROPOSED STORM SEWER
- FLOWLINE (E)
- PROPOSED GAS
- PROPOSED UNDER-HEAD ELECTRIC
- PROPOSED WATER
- ROOF DRAIN
- X- EXISTING FENCE
- X- PROPOSED FENCE
- EXISTING CONTOUR
- FLOWLINE (E)
- EXISTING TREELINE
- PRESERVED TREELINE



**LANDSCAPING/TREE PRESERVATION NOTES**

1. TOTAL AREA OF LOT= 2.19 AC. = 95,565 SQ.FT.  
 TOTAL PAVED AREA= 61,735 SQ.FT. (65%)  
 TOTAL FUTURE BUILDING AREA= 7,500 SQ.FT. (8%)  
 TOTAL IMPERVIOUS AREA= 69,235 SQ.FT. (72%)  
 TOTAL AREA OF LANDSCAPING= 26,330 SQ.FT. (28%)
2. ALL DISTURBED AREAS SHALL BE SEEDED & MULCHED AFTER CONSTRUCTION.
3. PAVED AREA = 61,735 SQ. FT. / 4,500 = 14 TREES REQUIRED.
4. STREET BUFFER = 535 LF OF PAVED AREA WITHIN 20' OF RIGHT-OF-WAY.  
 535 LF / 50' = 10.7 OR 11 TREES  
 535 LF X 50% = 267.5 LF SCREENING  
 267.5 LF SCREENING / 3 LF PER SHRUB = 90 SHRUB/BUSHES  
 ALL SHRUBS/BUSHES TO BE A MIN. 3' IN HEIGHT
5. 30% OF TOTAL TREES = 11 MED./LG. SHADE TREES.  
 34 TREES TOTAL SHOWN ON SITE.
6. LANDSCAPING MAY BE ENHANCED BY THE DEVELOPER AS TIME AND BUDGET ALLOWS.
7. ALL STREET PERIMETER LANDSCAPING, THE MEDIAN ISLAND LANDSCAPING, LOT 110 AND LOT 112 LANDSCAPING AND ALL NATIVE GRASS RESTORATION AND REFORESTED AREAS SHALL BE DONE IN ACCORDANCE WITH THE ROST LANDSCAPING PLANS DATED MAY 20, 2008.

**PLANT SCHEDULE**

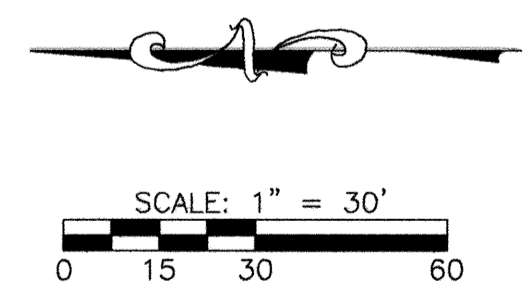
SYMBOL	QUANTITY	PLANT SPECIES
	43	LARGE DECIDUOUS SHRUB 5 GAL
	28	EVERGREEN DECID. SHRUB 5 GAL
	14	ORNAMENTAL TREE 2"
	20	SHADE TREE (MED. - LG.) 2"
	0.69 AC.	TURF GRASS N/A
	19	ORNAMENTAL GRASS 5' CLUMP

**TREE PRESERVATION NOTES**

REFER TO THE OVERALL C-P PLAN (SHEET 1) FOR TREE PRESERVATION DETAILS. TREE PRESERVATION SHALL BE SHOWN ON INDIVIDUAL SITES IF PRESENT.

**STORMWATER MANAGEMENT**

1. IT IS THE INTENT OF THIS PLAN TO CAPTURE THE RUNOFF FROM THE IMPROVED SITE AND DETAIN THE PEAK RUNOFF TO PRE-DEVELOPMENT LEVELS FOR THE Q1, Q2, Q10 AND Q100 DESIGN STORMS. THE Q1 DESIGN STORM SHALL ALSO BE TREATED TO OBTAIN THE APPROPRIATE WATER QUALITY LEVEL OF SERVICE. ONE OF TWO FOLLOWING METHODS MAY BE USED TO ACHIEVE THESE GOALS:
  - A. THE USE OF PERVIOUS/POROUS PAVEMENT IN PORTIONS OF THE PARKING LOT. THIS TYPE OF PAVEMENT REDUCES THE TOTAL IMPERVIOUS AREA OF THE SITE AND FUNCTIONS AS THE STORM WATER SYSTEM INLET. WITH THIS TYPE OF SYSTEM A GRANULAR STORAGE/FILTRATION BED IS PLACED UNDER THE PERVIOUS/POROUS PAVEMENT FOR DETENTION AND TO ALLOW FOR GROUND WATER RECHARGE. SMALLER DIAMETER PVC PIPES WITHIN THE GRANULAR BED ALLOW FOR EXCESS RETAINED WATER TO DRAIN TO THE PUBLIC STORM SEWER SYSTEM.
  - B. THE USE OF CUTTERS AND INLETS TO INTERCEPT AND DRAIN RUNOFF TO UNDERGROUND STORAGE TANKS/VAULTS. WITH THIS TYPE OF SYSTEM THE RUNOFF IS DETAINED IN THE STORAGE TANKS/VAULTS AND IS THEN ROUTED TO A MECHANICAL SEPERATION AND FILTRATION DEVICE WHICH TREATS THE RUNOFF PRIOR TO DRAINING TO THE PUBLIC STORM SEWER SYSTEM.
2. ALL STORMWATER MANAGEMENT FACILITIES SHALL BE DESIGNED IN ACCORDANCE WITH CHAPTER 12A AND THE STORMWATER MANAGEMENT AND WATER QUALITY MANUAL OF THE CITY OF COLUMBIA. SUCH FINAL DESIGN SHALL BE PROVIDED BY THE ENGINEER THAT PROVIDES THE FINAL SITE CONSTRUCTION PLANS.



**CROSSCREEK CENTER C-P  
 STORM AND LANDSCAPING PLAN - LOT 108**

	 <b>A CIVIL GROUP</b> CIVIL ENGINEERING, PLANNING, SURVEYING 1123 WILKES BLVD., SUITE 450 COLUMBIA, MD 21021 PHONE: (301)811-5750, FAX: (301)811-1471
DRAWN BY: <b>TAK</b> DATE: <b>06/26/08</b>	ENGR: <b>JAG</b> PK: <b>KPM</b> DRAWING NO.: <b>KEAR08-07</b>
NO. 1      DATE:      DESCRIPTION:      BY:      JOB NO.: <b>KEAR08.07</b> SHEET <b>17</b> OF <b>27</b>	

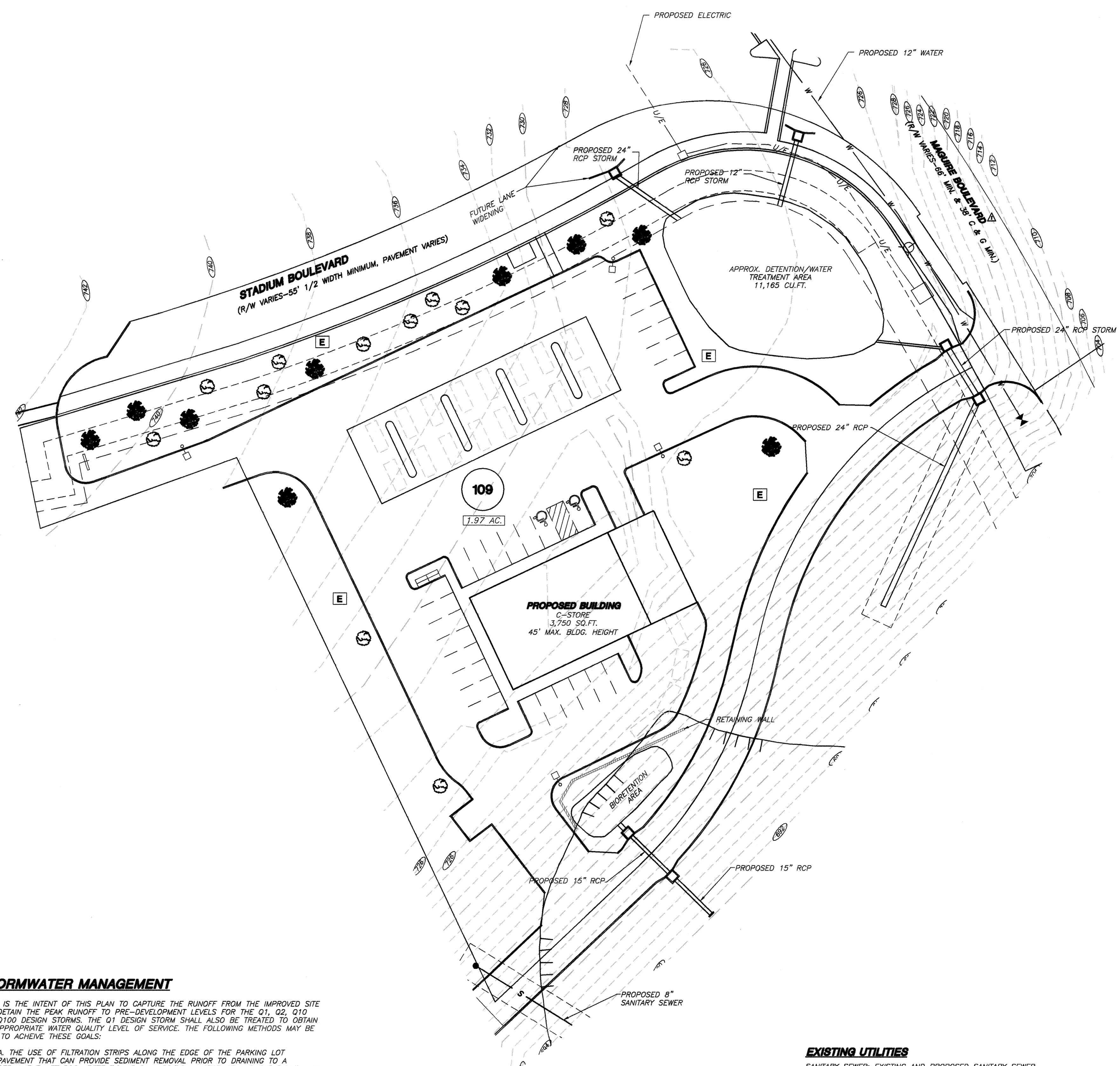
K:\Project\Kearnes\Crosscreek\_Center\EP\CROSSCREEK\_CENTER\_C\KEAR08-07\CROSSCREEK\_CENTER\_C\CENTRAL\_RE-REVISED.dwg PRELIM STORM AND LANDSCAPE



C-P DEVELOPMENT PLAN  
**CROSSCREEK CENTER C-P**  
 JUNE 26, 2008

**LEGEND**

WM	EXISTING WATER METER
GP	GUARD POST
FH	EXISTING FIRE HYDRANT
WV	EXISTING WATER VALVE
♿	HANDICAPPED PARKING
♿	HANDICAPPED PARKING SIGN
○	EXISTING IRON PIPE
●	SET-IRON
(R)	REMOVE
(REC.)	RECORD
M.H.	EXISTING SANITARY MANHOLE
CO	EXISTING SANITARY CLEANOUT
·	PROPOSED SANITARY MANHOLE
·	PROPOSED SANITARY CLEANOUT
LP	LIGHT POLE
PP	POWER POLE
—	GUY WIRE
— T —	EXISTING TELEPHONE
— G —	EXISTING GUARDRAIL
— G —	EXISTING GAS
— OE —	EXISTING OVER-HEAD ELECTRIC
— S —	EXISTING SANITARY
— W —	EXISTING WATER
— U/E —	EXISTING UNDERGROUND ELECTRIC
— W —	EXISTING WATER
— S —	PROPOSED SANITARY
— T —	PROPOSED UNDERGROUND TELEPHONE
—	PROPOSED STORM SEWER
—	FLOWLINE (E)
— G —	PROPOSED GAS
— U/E —	PROPOSED UNDERGROUND ELECTRIC
— W —	PROPOSED WATER
— RD —	ROOF DRAIN
- - - X - - -	EXISTING FENCE
- - - X - - -	PROPOSED FENCE
7.00	EXISTING CONTOUR
7.00	FLOWLINE (E)
—	EXISTING TREELINE
—	PRESERVED TREELINE

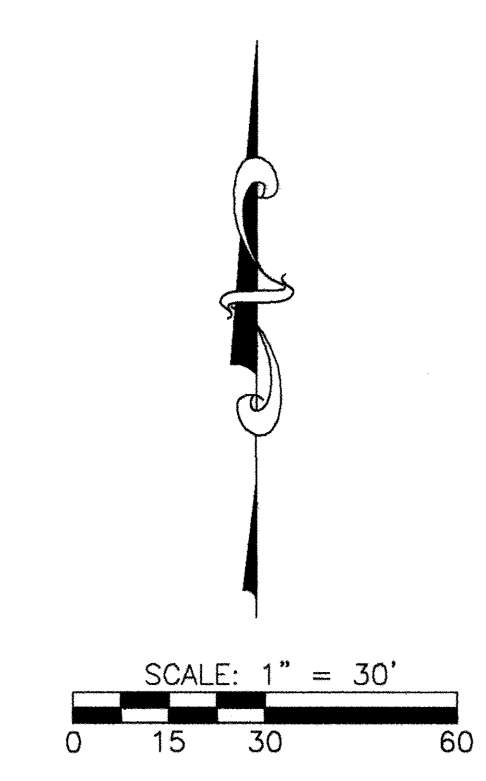


**TREE PRESERVATION NOTE**  
 TREE PRESERVATION IS SHOWN AS PER THE APPROVED TREE PRESERVATION PLAN DATED SEPTEMBER 14, 2007. THERE IS NO TREE PRESERVATION ON THIS LOT.

- LANDSCAPING/TREE PRESERVATION NOTES:**
- TOTAL AREA OF LOT= 1.97 AC. = 85,876 SQ.FT.  
 TOTAL PAVED AREA= 43,796 SQ.FT. (51%)  
 TOTAL FUTURE BUILDING AREA= 3,435 SQ.FT. (4%)  
 TOTAL IMPERVIOUS AREA= 48,262 SQ.FT. (55%)  
 TOTAL AREA OF LANDSCAPING= 38,644 SQ.FT. (45%)
  - ALL DISTURBED AREAS SHALL BE SEEDED & MULCHED AFTER CONSTRUCTION.
  - PAVED AREA = 43,796. FT. / 4,500 = 9 TOTAL TREES REQUIRED.  
 20 TOTAL TREES PROVIDED.
  - ALL PAVED AREAS ARE A MINIMUM OF 20' FROM RIGHT-OF-WAY. NO LANDSCAPE BUFFER REQUIRED.
  - 30% OF TOTAL TREES = 3 MED./LG. SHADE TREES.  
 9 SHADE TREES SHOWN ON SITE.
  - LANDSCAPING MAY BE ENHANCED BY THE DEVELOPER AS TIME AND BUDGET ALLOWS.

**PLANT SCHEDULE**

SYMBOL	QUANTITY	SIZE	CATEGORY
A	0	5 GAL.	LARGE DECIDUOUS SHRUB
B	0	5 GAL.	EVERGREEN SHRUB
C	11	2"	ORNAMENTAL TREE
D	9	2"	SHADE TREE (MED. - LARGE)
E	0.92 AC.	N/A	TURF GRASS



**STORMWATER MANAGEMENT**

- IT IS THE INTENT OF THIS PLAN TO CAPTURE THE RUNOFF FROM THE IMPROVED SITE AND DETAIN THE PEAK RUNOFF TO PRE-DEVELOPMENT LEVELS FOR THE Q1, Q2, Q10 AND Q100 DESIGN STORMS. THE Q1 DESIGN STORM SHALL ALSO BE TREATED TO OBTAIN THE APPROPRIATE WATER QUALITY LEVEL OF SERVICE. THE FOLLOWING METHODS MAY BE USED TO ACHIEVE THESE GOALS:
  - THE USE OF FILTRATION STRIPS ALONG THE EDGE OF THE PARKING LOT PAVEMENT THAT CAN PROVIDE SEDIMENT REMOVAL PRIOR TO DRAINING TO A PERMANENT WET POOL, RETENTION BASIN, ADDITIONAL STORAGE AND TREATMENT MAY BE PROVIDED BY BIORETENTION RAIN GARDENS FOR SMALL PORTIONS OF THE SITE. SMALL DIAMETER PIPES SHALL DRAIN EXCESS STORM WATER TO THE PUBLIC STORM SEWER SYSTEM.
  - THE USE OF GUTTERS AND INLETS TO INTERCEPT AND DRAIN RUNOFF TO UNDERGROUND STORAGE TANKS/VAULTS. WITH THIS TYPE OF SYSTEM THE RUNOFF IS DETAINED IN THE STORAGE TANKS/VAULTS AND IS THEN ROUTED TO A MECHANICAL SEPARATION AND FILTRATION DEVICE WHICH TREATS THE RUNOFF PRIOR TO DRAINING TO THE PUBLIC STORM SEWER SYSTEM.
- ALL STORMWATER MANAGEMENT FACILITIES SHALL BE DESIGNED IN ACCORDANCE WITH CHAPTER 12A AND THE STORMWATER MANAGEMENT AND WATER QUALITY MANUAL OF THE CITY OF COLUMBIA. SUCH FINAL DESIGN SHALL BE PROVIDED BY THE ENGINEER THAT PROVIDES THE FINAL SITE CONSTRUCTION PLANS.

**EXISTING UTILITIES**

SANITARY SEWER: EXISTING AND PROPOSED SANITARY SEWER AS SHOWN.  
 WATER: PROPOSED WATER MAIN TO BE EXTENDED FROM THE NORTH AS SHOWN.  
 ELECTRIC: PROPOSED ELECTRIC SERVICE TO BE EXTENDED FROM THE NORTH AS SHOWN.

**CROSSCREEK CENTER C-P  
 STORMWATER MANAGEMENT/LANDSCAPING - LOT 109**

	A CIVIL GROUP CIVIL ENGINEERING, PLANNING, SURVEYING 123 WILKES BLVD., SUITE 450 COLUMBIA, MD 21041 PHONE: (571)871-5150, FAX: (571)871-1171	
DRAWN BY: DMH ENGR: JAG PK: KPM	DATE: 06/26/08 DRAWING NO.: KEAR08-07	SHEET 19 OF 27

# CROSSCREEK CENTER C-P

JUNE 26, 2008

### SIGNAGE

LOT 110 SHALL HAVE TWO FREESTANDING PYLON SIGNS HAVING A MAXIMUM AREA OF 128 SQ.FT. AND A MAXIMUM HEIGHT OF 30 FEET WHEN PLACED AT A 10' SETBACK FROM THE PROPERTY LINE. FOR EACH ADDITIONAL 2' OF SETBACK, AN ADDITIONAL 10.65 SQ.FT. OF AREA AND 1" OF HEIGHT MAY BE ADDED UP TO A MAXIMUM AREA OF 288 SQ.FT. AND A MAXIMUM HEIGHT OF 40'. WALL MOUNTED AND DIRECTIONAL SIGNS SHALL BE DETERMINED AT A LATER DATE AND SHALL CONFORM TO THE CITY OF COLUMBIA'S SIGN ORDINANCE, CHAPTER 23 FOR C-3 ZONING. REVISIONS TO SIGN LOCATION IN MAY BE APPROVED AS A MINOR REVISION.

### LIGHTING

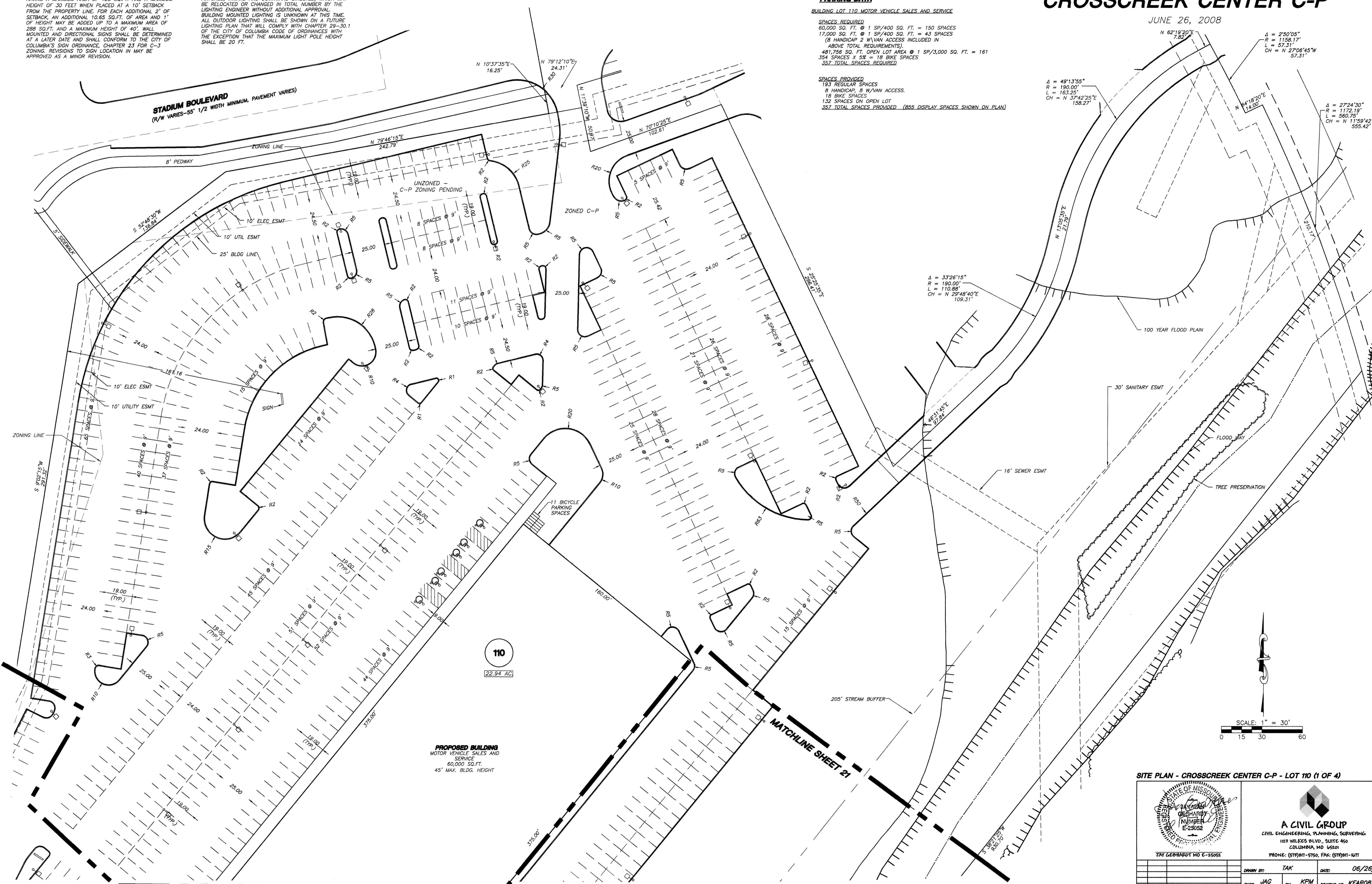
LIGHT POLES SHOWN SHALL BE SEMI-CUTOFF SHOEBOX FIXTURES, INWARD AND DOWNWARD DIRECTED, WHICH MAY BE RELOCATED OR CHANGED IN TOTAL NUMBER BY THE LIGHTING ENGINEER WITHOUT ADDITIONAL APPROVAL. BUILDING MOUNTED LIGHTING IS UNKNOWN AT THIS TIME. ALL OUTDOOR LIGHTING SHALL BE SHOWN ON A FUTURE LIGHTING PLAN THAT WILL COMPLY WITH CHAPTER 29-30.1 OF THE CITY OF COLUMBIA CODE OF ORDINANCES WITH THE EXCEPTION THAT THE MAXIMUM LIGHT POLE HEIGHT SHALL BE 20 FT.

### PARKING DATA

#### BUILDING LOT 110 MOTOR VEHICLE SALES AND SERVICE

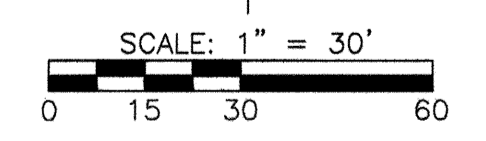
**SPACES REQUIRED**  
 60,000 SQ. FT. @ 1 SP/400 SQ. FT. = 150 SPACES  
 17,000 SQ. FT. @ 1 SP/400 SQ. FT. = 43 SPACES  
 (8 HANDICAP 2 W/VAN ACCESS INCLUDED IN ABOVE TOTAL REQUIREMENTS).  
 481,756 SQ. FT. OPEN LOT AREA @ 1 SP/3,000 SQ. FT. = 161  
 354 SPACES X 5% = 18 BIKE SPACES  
**357 TOTAL SPACES REQUIRED**

**SPACES PROVIDED**  
 193 REGULAR SPACES  
 8 HANDICAP, 8 W/VAN ACCESS.  
 18 BIKE SPACES  
 132 SPACES ON OPEN LOT  
**357 TOTAL SPACES PROVIDED (855 DISPLAY SPACES SHOWN ON PLAN)**



110  
22.94 AC

**PROPOSED BUILDING**  
 MOTOR VEHICLE SALES AND SERVICE  
 60,000 SQ.FT.  
 45' MAX. BLDG. HEIGHT

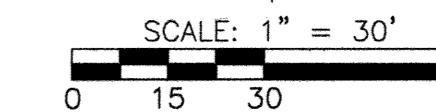


#### SITE PLAN - CROSSCREEK CENTER C-P - LOT 110 (1 OF 4)

	<p><b>A CIVIL GROUP</b>        CIVIL ENGINEERING, PLANNING, SURVEYING        1123 WILKES BLVD., SUITE 450        COLUMBIA, MD 21021        PHONE: (301)811-5750, FAX: (301)811-1171</p>	
DRAWN BY: <b>TAK</b> ENGR: <b>JAG</b> <b>KPM</b>	DATE: <b>06/26/08</b> DRAWING NO.: <b>KEAR08-07</b>	SHEET <b>20</b> OF <b>27</b>

# CROSSCREEK CENTER C-P

JUNE 26, 2008



100 YEAR FLOOD PLAIN

MATCHLINE SHEET 20

205' STREAM BUFFER

30' SANITARY EASEMENT

FLOOD WAY

TREE PRESERVATION

TREE PRESERVATION

100 YEAR FLOOD PLAIN

MATCHLINE SHEET 22

SEE SHEET 20 FOR NOTES

US 69  
(EXIT RAMP)

ZONING LINE

10' ELEC ESMT  
10' UTIL ESMT  
25' BLDG LINE

EXISTING ONE TO BE REMOVED AND RELOCATED COVERED BY A BLANKET EASEMENT

UNZONED ZONING PENDING

ZONED C-P

5' 20x11 2/27 W  
25x12 1/2

72.01

R10

7 SPACES @ 9'

7 SPACES @ 9'

7 SPACES @ 9'

5 SPACES @ 9'

5 SPACES @ 9'

5 SPACES @ 9'

2 SPACES @ 9'

2 SPACES @ 9'

2 SPACES @ 9'

2 SPACES @ 9'

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2 SPACES @ 9'

2 SPACES @ 9'

2 SPACES @ 9'

2 SPACES @ 9'

2 SPACES @ 9'

110  
22.96 AC

**PROPOSED BUILDING**  
MOTOR VEHICLE SALES AND SERVICE  
17,000 SQ. FT.  
45' MAX. BLDG. HEIGHT

SIDEWALK 163.00'

SIDEWALK 163.00'

7 BICYCLE PARKING SPACES

4 SPACES @ 9'

4 SPACES @ 9'

4 SPACES @ 9'

4 SPACES @ 9'

4 SPACES @ 9'

4 SPACES @ 9'

4 SPACES @ 9'

4 SPACES @ 9'

4 SPACES @ 9'

4 SPACES @ 9'

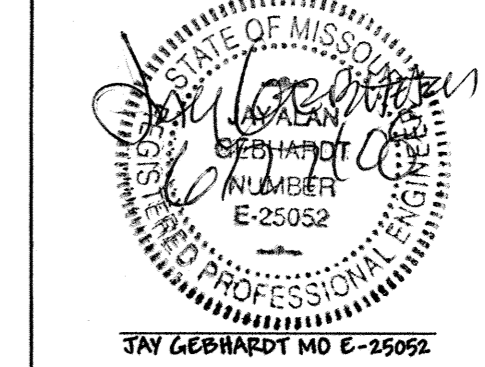
4 SPACES @ 9'

4 SPACES @ 9'

4 SPACES @ 9'

EXISTING MOTOR RIGHT-OF-WAY TO BE VACATED

### SITE PLAN - CROSSCREEK CENTER C-P LOT - 110 (2 OF 4)



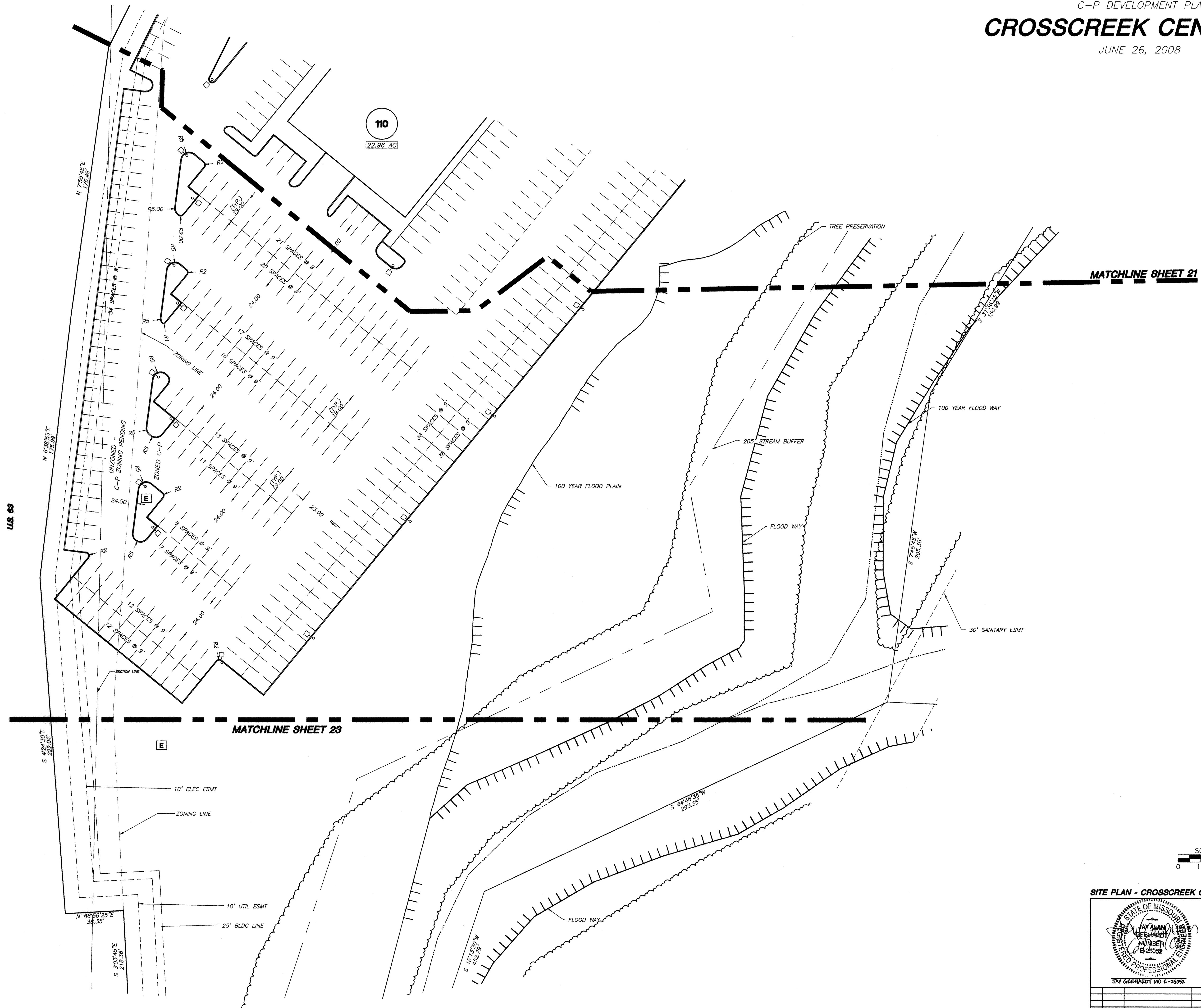
**A CIVIL GROUP**  
CIVIL ENGINEERING, PLANNING, SURVEYING  
123 WILKES BLVD., SUITE 450  
COLUMBIA, MO 65201  
PHONE: (573)917-5150, FAX: (573)917-1171

NO.	DATE	DESCRIPTION	BY	JOB NO.	DATE
				KEAR08.07	06/26/08
DRAWN BY: TAK			DATE: 06/26/08		
ENGR: JAG			PH: KPM		
			DRAWING NO.: KEAR08-07		
			SHEET 21 OF 27		

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C-P DEVELOPMENT PLAN  
**CROSSCREEK CENTER C-P**

JUNE 26, 2008



SITE PLAN - CROSSCREEK CENTER C-P LOT - 110 (3 OF 4)

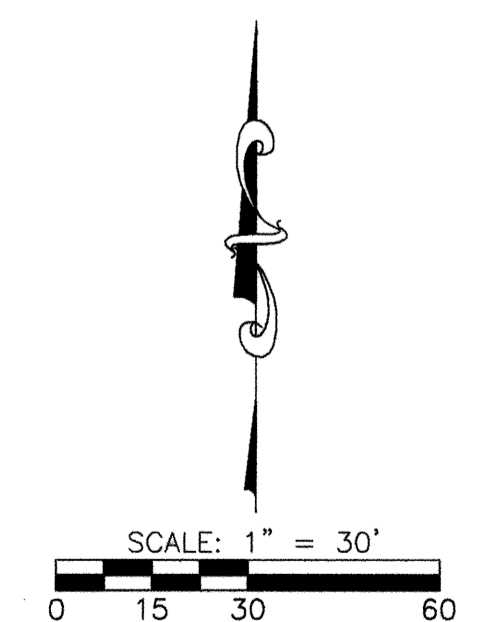
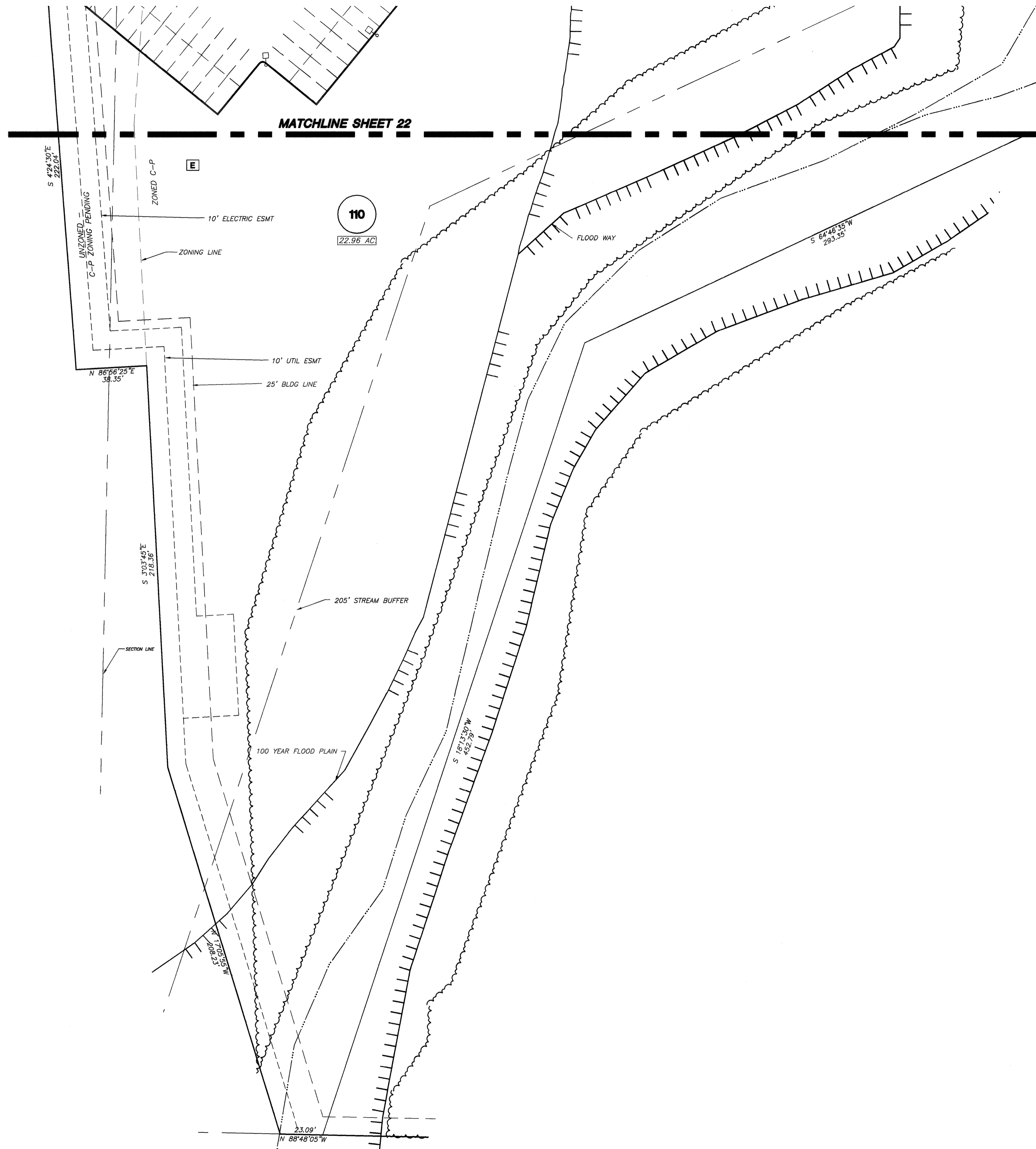
	<p><b>A CIVIL GROUP</b>          CIVIL ENGINEERING, PLANNING, SURVEYING          1123 WILKES BLVD., SUITE 450          COLUMBIA, MD 21021          PHONE: (410)811-5150, FAX: (410)811-1011</p>	
DRAWN BY: <b>TAK</b> ENGR: <b>JAG</b> <b>KPM</b>	DATE: <b>06/26/08</b> DRAWING NO.: <b>KEAR08-07</b>	SHEET <b>22</b> OF <b>27</b>

SEE SHEET 20 FOR NOTES

X:\Project\Kearnes\Crosscreek Center\LP1\CROSSCREEK CENTER C-P\KEAR08-07\CROSSCREEK CENTER SOUTH RE-REVISED.dwg C-P PLAN

C-P DEVELOPMENT PLAN  
**CROSSCREEK CENTER C-P**  
 JUNE 26, 2008

U.S. 63



SITE PLAN - CROSSCREEK CENTER C-P LOT - 110 (4 OF 4)

	A CIVIL GROUP CIVIL ENGINEERING, PLANNING, SURVEYING 1123 WILKES BLVD., SUITE 450 COLUMBIA, MO 65201 PHONE: (573)811-5750, FAX: (573)811-1471	

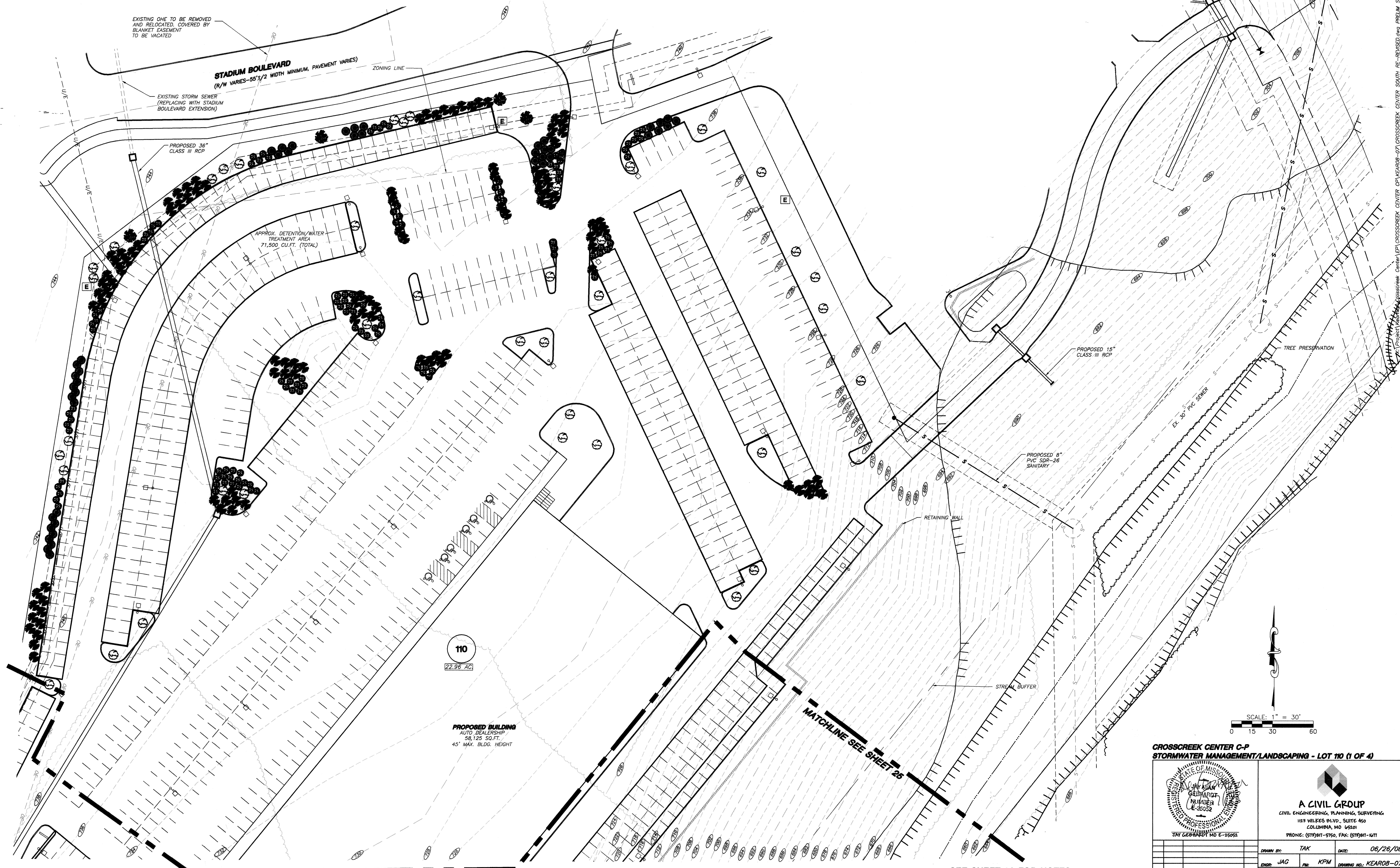
NO.	DATE	DESCRIPTION	BY	JOB NO.	SHEET	OF
				KEAR08.07	23	27

SEE SHEET 20 FOR NOTES

X:\Project\Kearnes\Crosscreek Center\LEFT\CROSSCREEK CENTER C-P\KEAR08-07\CROSSCREEK CENTER SOUTH RE-REVISED.dwg C-P PLAN

C-P DEVELOPMENT PLAN  
**CROSSCREEK CENTER C-P**

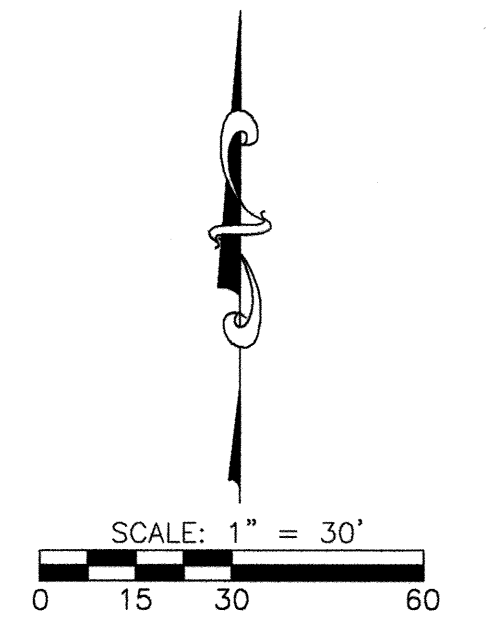
JUNE 26, 2008



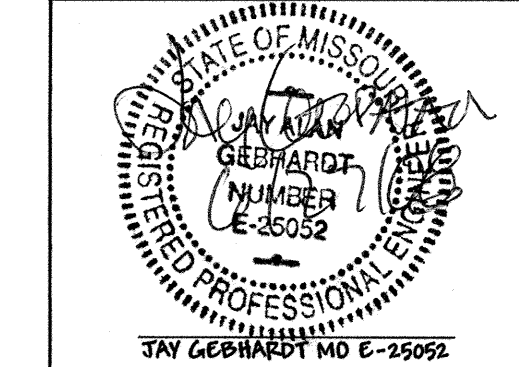
110  
22.96 AC

**PROPOSED BUILDING**  
 AUTO DEALERSHIP  
 58,122 SQ. FT.  
 45' MAX. BLDG. HEIGHT

MATCHLINE SEE SHEET 25



**CROSSCREEK CENTER C-P**  
**STORMWATER MANAGEMENT/LANDSCAPING - LOT 110 (1 OF 4)**



**A CIVIL GROUP**  
 CIVIL ENGINEERING, PLANNING, SURVEYING  
 1123 WILKES BLVD., SUITE 450  
 COLUMBIA, MD 21051  
 PHONE: (410)871-5150, FAX: (410)871-1171

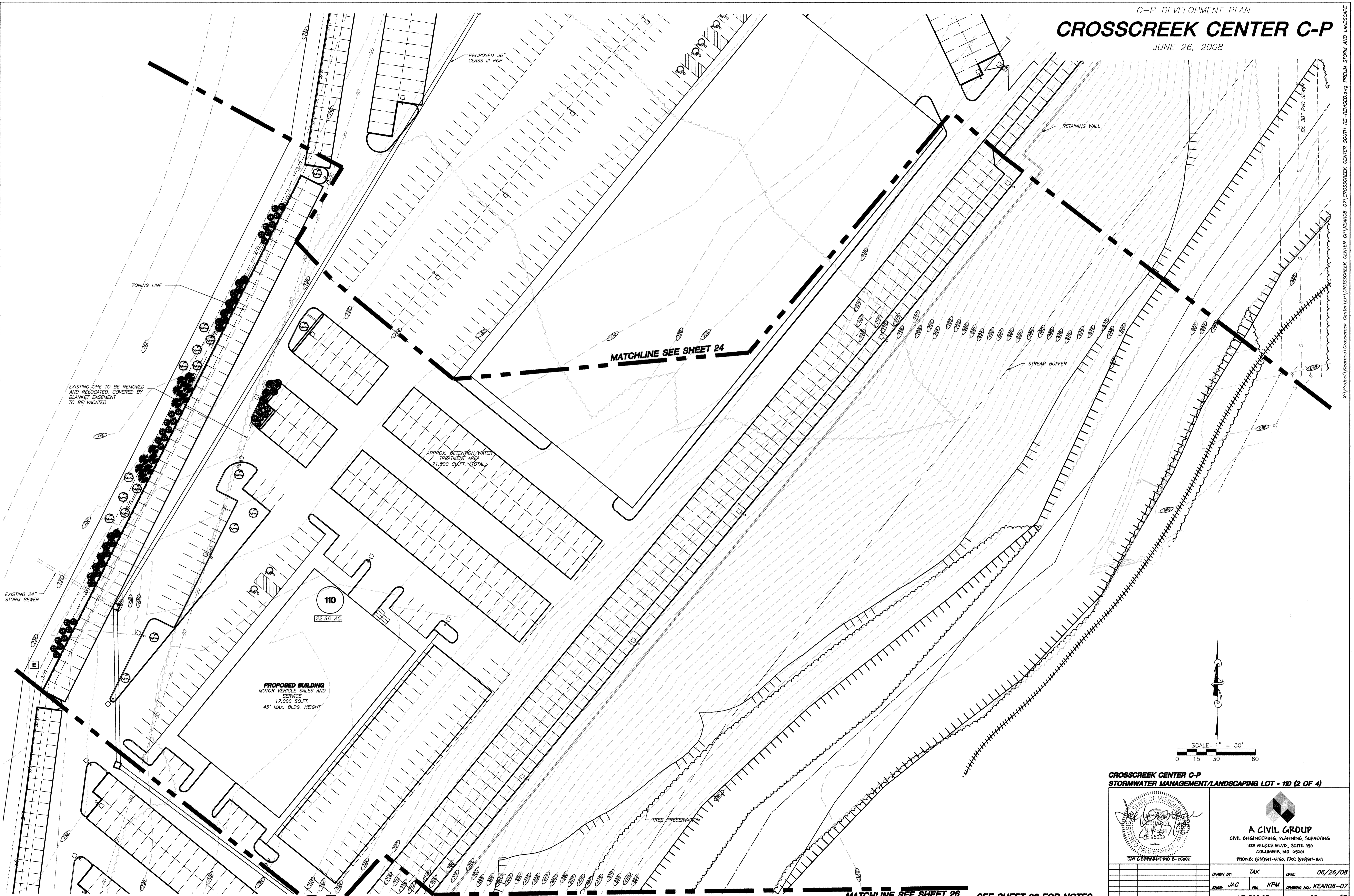
NO.	DATE	DESCRIPTION	BY	JOB NO.	DATE	SHEET	OF
				KEAR08.07	06/26/08	24	27

SEE SHEET 26 FOR NOTES

CROSSCREEK CENTER C-P (KEAR08-07) CROSSCREEK CENTER SOUTH RE-REVISIONS PRELIM STORM AND LANDSCAPE



C-P DEVELOPMENT PLAN  
**CROSSCREEK CENTER C-P**  
 JUNE 26, 2008



EXISTING ONE TO BE REMOVED AND RELOCATED. COVERED BY BLANKET EASEMENT TO BE VACATED

EXISTING 24" STORM SEWER

ZONING LINE

PROPOSED 36" CLASS III RCP

MATCHLINE SEE SHEET 24

APPROX. RETENTION/WATER TREATMENT AREA  
 71,900 CU.FT. (TOTAL)

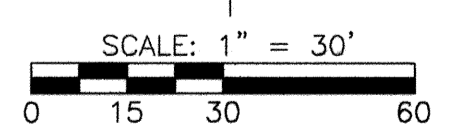
110  
 22.96 AC

PROPOSED BUILDING  
 MOTOR VEHICLE SALES AND SERVICE  
 17,000 SQ.FT.  
 45' MAX. BLDG. HEIGHT

RETAINING WALL

STREAM BUFFER

TREE PRESERVATION



CROSSCREEK CENTER C-P  
 STORMWATER MANAGEMENT/LANDSCAPING LOT - 110 (2 OF 4)



**A CIVIL GROUP**  
 CIVIL ENGINEERING, PLANNING, SURVEYING  
 1023 WILKES BLVD., SUITE 450  
 COLUMBIA, MO 65201  
 PHONE: (573)811-5750, FAX: (573)811-1471

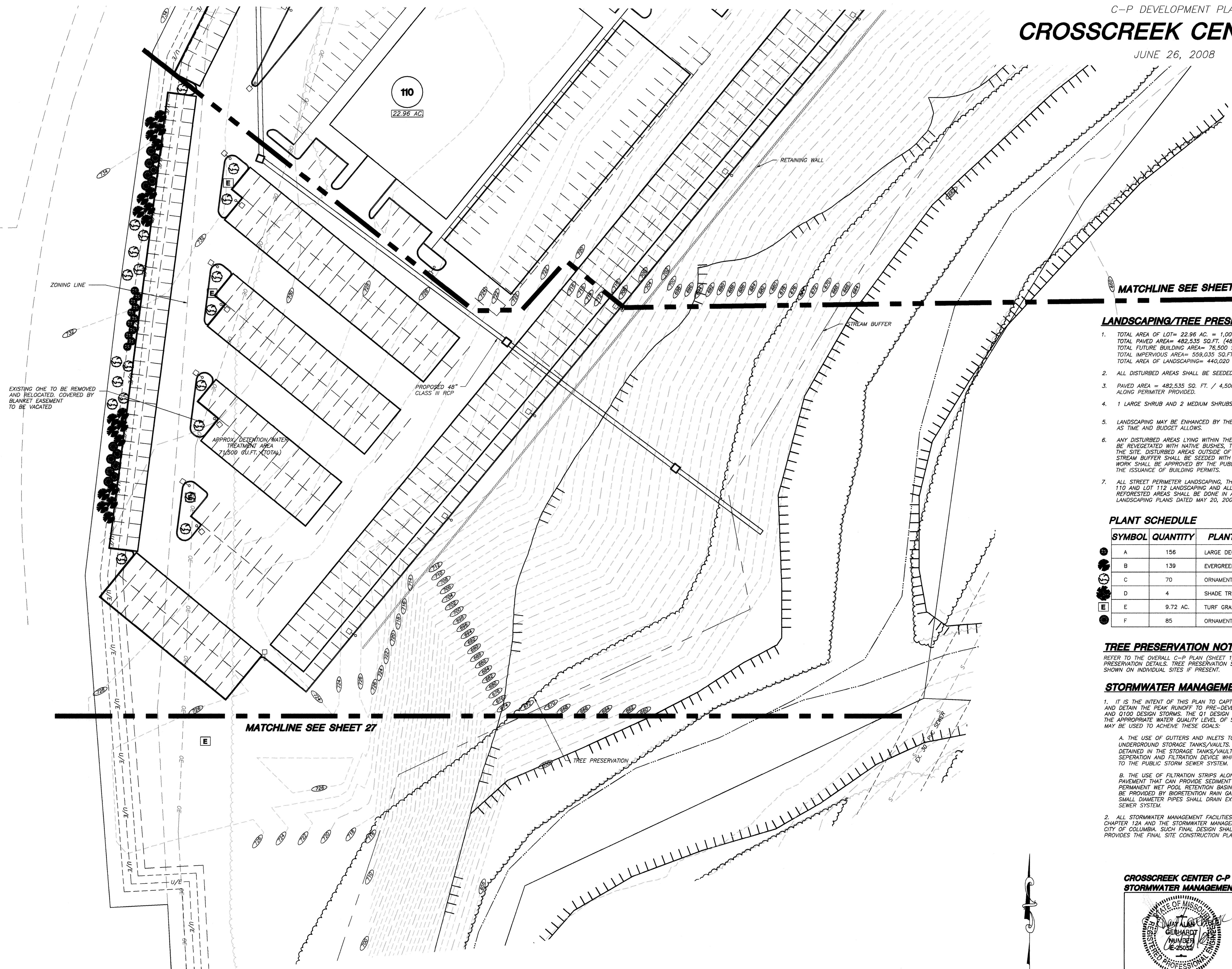
NO.	DATE	DESCRIPTION	BY	JOB NO.	KEY: KEAR08.07	SHEET	25	OF	47

MATCHLINE SEE SHEET 26 SEE SHEET 26 FOR NOTES

K:\Project\Kearns\Crosscreek Center\EP\CROSSCREEK CENTER C-P\KEAR08-07\CROSSCREEK CENTER SOUTH RE-RELEASED.dwg PRELIM STORM AND LANDSCAPE

C-P DEVELOPMENT PLAN  
**CROSSCREEK CENTER C-P**

JUNE 26, 2008



**LANDSCAPING/TREE PRESERVATION NOTES**

- TOTAL AREA OF LOT= 22.96 AC. = 1,000,045 SQ.FT.  
 TOTAL PAVED AREA= 482,535 SQ.FT. (48%)  
 TOTAL FUTURE BUILDING AREA= 76,500 SQ.FT. (8%)  
 TOTAL IMPERVIOUS AREA= 559,035 SQ.FT. (56%)  
 TOTAL AREA OF LANDSCAPING= 440,020 SQ.FT. (44%)
- ALL DISTURBED AREAS SHALL BE SEEDED & MULCHED AFTER CONSTRUCTION.
- PAVED AREA = 482,535 SQ. FT. / 4,500 = 107 TREES REQUIRED - 107 ALONG PERIMETER PROVIDED.
- 1 LARGE SHRUB AND 2 MEDIUM SHRUBS MAY BE SUBSTITUTED FOR 1 TREE.
- LANDSCAPING MAY BE ENHANCED BY THE DEVELOPER AS TIME AND BUDGET ALLOWS.
- ANY DISTURBED AREAS LYING WITHIN THE PROPOSED STREAM BUFFER SHALL BE REVEGETATED WITH NATIVE BUSHES, TREES AND GRASSES ADAPTED TO THE SITE. DISTURBED AREAS OUTSIDE OF AND ADJACENT TO THE PROPOSED STREAM BUFFER SHALL BE SEEDED WITH NATIVE GRASSES. PLANS FOR SUCH WORK SHALL BE APPROVED BY THE PUBLIC WORKS DEPARTMENT PRIOR TO THE ISSUANCE OF BUILDING PERMITS.
- ALL STREET PERIMETER LANDSCAPING, THE MEDIAN ISLAND LANDSCAPING, LOT 110 AND LOT 112 LANDSCAPING AND ALL NATIVE GRASS RESTORATION AND REFORESTED AREAS SHALL BE DONE IN ACCORDANCE WITH THE MOST LANDSCAPING PLANS DATED MAY 20, 2008.

**PLANT SCHEDULE**

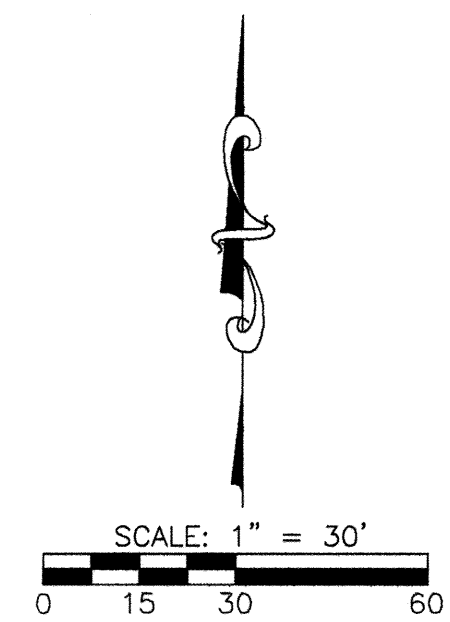
SYMBOL	QUANTITY	PLANT SPECIES	
A	156	LARGE DECIDUOUS SHRUB	5 GAL
B	139	EVERGREEN DECID. SHRUB	5 GAL
C	70	ORNAMENTAL TREE	2"
D	4	SHADE TREE (MED. - LG.)	2"
E	9.72 AC.	TURF GRASS	N/A
F	85	ORNAMENTAL GRASS	5' CLUMP

**TREE PRESERVATION NOTES**

REFER TO THE OVERALL C-P PLAN (SHEET 1) FOR TREE PRESERVATION DETAILS. TREE PRESERVATION SHALL BE SHOWN ON INDIVIDUAL SITES IF PRESENT.

**STORMWATER MANAGEMENT**

- IT IS THE INTENT OF THIS PLAN TO CAPTURE THE RUNOFF FROM THE IMPROVED SITE AND DETAIN THE PEAK RUNOFF TO PRE-DEVELOPMENT LEVELS FOR THE Q1, Q2, Q10 AND Q100 DESIGN STORMS. THE Q1 DESIGN STORM SHALL ALSO BE TREATED TO OBTAIN THE APPROPRIATE WATER QUALITY LEVEL OF SERVICE. ONE OF TWO FOLLOWING METHODS MAY BE USED TO ACHIEVE THESE GOALS:
  - THE USE OF GUTTERS AND INLETS TO INTERCEPT AND DRAIN RUNOFF TO UNDERGROUND STORAGE TANKS/VAULTS. WITH THIS TYPE OF SYSTEM THE RUNOFF IS DETAINED IN THE STORAGE TANKS/VAULTS AND IS THEN ROUTED TO A MECHANICAL SEPERATION AND FILTRATION DEVICE WHICH TREATS THE RUNOFF PRIOR TO DRAINING TO THE PUBLIC STORM SEWER SYSTEM.
  - THE USE OF FILTRATION STRIPS ALONG THE EDGE OF THE PARKING LOT PAVEMENT THAT CAN PROVIDE SEDIMENT REMOVAL PRIOR TO DRAINING TO A PERMANENT WET POOL, RETENTION BASIN, ADDITIONAL STORAGE AND TREATMENT MAY BE PROVIDED BY BIORETENTION RAIN GARDENS FOR SMALL PORTIONS OF THE SITE. SMALL DIAMETER PIPES SHALL DRAIN EXCESS STORM WATER TO THE PUBLIC STORM SEWER SYSTEM.
- ALL STORMWATER MANAGEMENT FACILITIES SHALL BE DESIGNED IN ACCORDANCE WITH CHAPTER 12A AND THE STORMWATER MANAGEMENT AND WATER QUALITY MANUAL OF THE CITY OF COLUMBIA. SUCH FINAL DESIGN SHALL BE PROVIDED BY THE ENGINEER THAT PROVIDES THE FINAL SITE CONSTRUCTION PLANS.



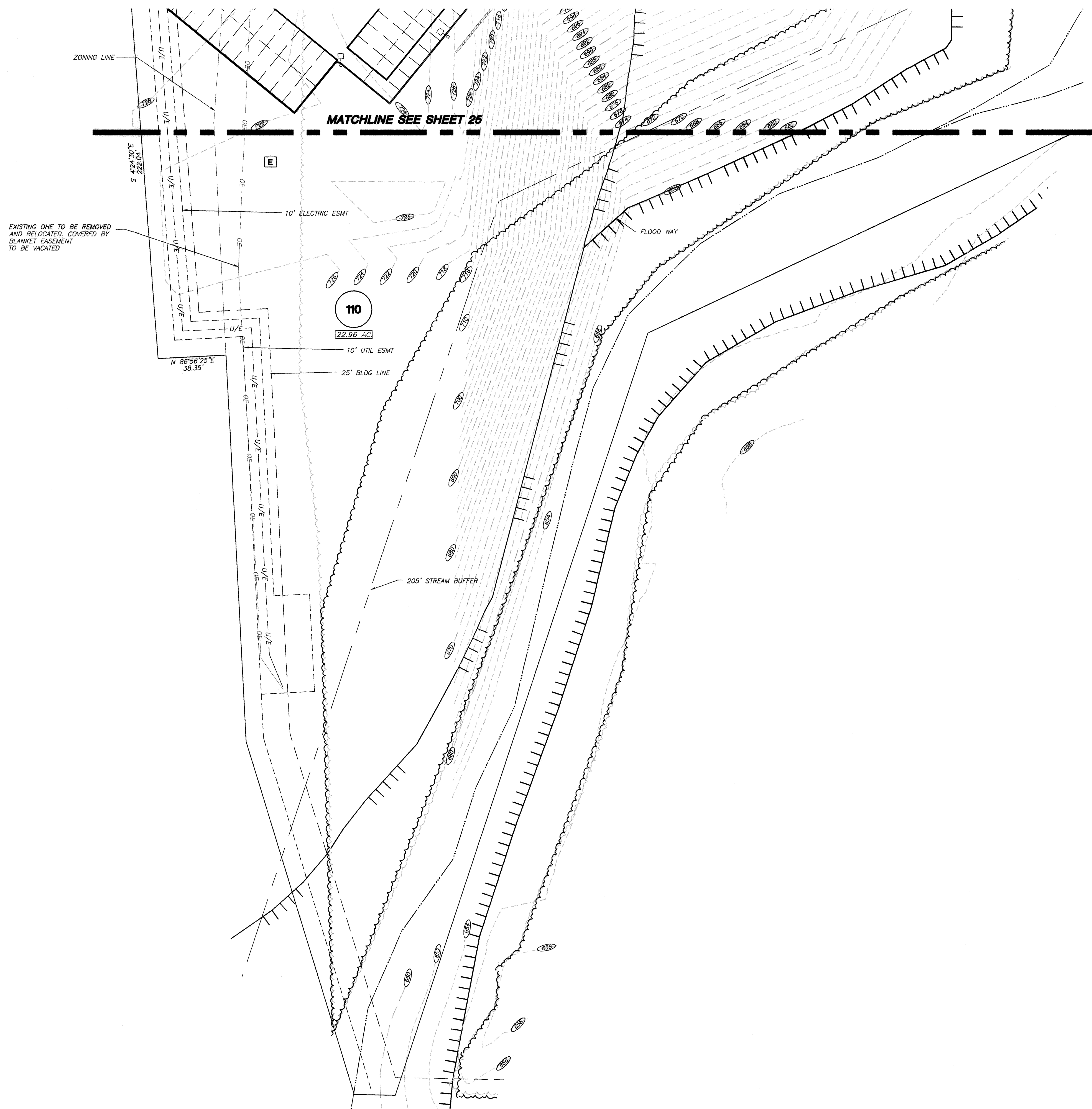
**CROSSCREEK CENTER C-P  
 STORMWATER MANAGEMENT/LANDSCAPING LOT 110 (3 OF 4)**

		DRAWN BY: <b>TAK</b>	DATE: <b>06/26/08</b>
		ENGR: <b>JAG</b>	PK: <b>KPM</b>
JOB NO.: <b>KEAR08.07</b>	SHEET <b>26</b> OF <b>27</b>		

X:\Project\Kearns\Crosscreek Center\LEP\Crosscreek Center C-P\KEAR08-07\CROSSCREEK CENTER SOUTH RE-REVISED.dwg PRELIM STORM AND LANDSCAPE

C-P DEVELOPMENT PLAN  
**CROSSCREEK CENTER C-P**

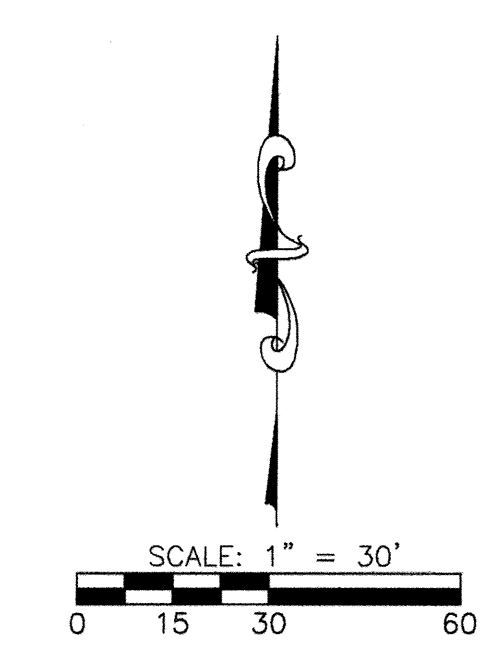
JUNE 26, 2008



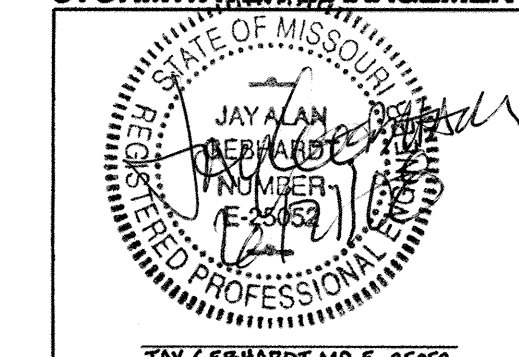
EXISTING OHE TO BE REMOVED AND RELOCATED. COVERED BY BLANKET EASEMENT TO BE VACATED

**LEGEND**

- WM = EXISTING WATER METER
- GP = GUARD POST
- FH = EXISTING FIRE HYDRANT
- WV = EXISTING WATER VALVE
- ♿ = HANDICAPPED PARKING
- ♿ = HANDICAPPED PARKING SIGN
- E = EXISTING IRON PIPE
- S = SET-IRON
- (R) = REMOVE
- (REC.) = RECORD
- M.H. = EXISTING SANITARY MANHOLE
- CO = EXISTING SANITARY CLEANOUT
- = PROPOSED SANITARY MANHOLE
- = PROPOSED SANITARY CLEANOUT
- LP = LIGHT POLE
- PP = POWER POLE
- = GUY WIRE
- T — = EXISTING TELEPHONE
- G — = EXISTING GUARDRAIL
- G — = EXISTING GAS
- OE — = EXISTING OVER-HEAD ELECTRIC
- S — = EXISTING SANITARY
- W — = EXISTING WATER
- U/E — = EXISTING UNDERGROUND ELECTRIC
- W — = EXISTING WATER
- S — = PROPOSED SANITARY
- T — = PROPOSED UNDERGROUND TELEPHONE
- = PROPOSED STORM SEWER
- ... = FLOWLINE (E)
- G — = PROPOSED GAS
- U/E — = PROPOSED UNDERGROUND ELECTRIC
- W — = PROPOSED WATER
- = ROOF DRAIN
- - - - = EXISTING FENCE
- - - - = PROPOSED FENCE
- 700 = EXISTING CONTOUR
- 700 = FLOWLINE (E)
- = EXISTING TREELINE
- = PRESERVED TREELINE



**CROSSCREEK CENTER C-P  
 STORMWATER MANAGEMENT/LANDSCAPING LOT 110 (4 OF 4)**



**A CIVIL GROUP**  
 CIVIL ENGINEERING, PLANNING, SURVEYING  
 1123 WILKES BLVD., SUITE 450  
 COLUMBIA, MD 21041  
 PHONE: (301)811-5750, FAX: (301)811-1111

NO.	DATE	DESCRIPTION	BY	JOB NO.	KEYWORD	SHEET	OF
				KEAR08.07		27	of 27

SEE SHEET 26 FOR NOTES

X:\Project\Kearnes\Crosscreek\Center\LEP\CROSSCREEK CENTER C-P\KEAR08-07\CROSSCREEK CENTER SOUTH RE-REVISED.dwg PRELIM STORM AND LANDSCAPE