

ADDENDUM #1

OCTOBER 2, 2012

PROJECT: FIFTH STREET INTERSECTION IMPROVEMENTS (AKA STREETS OF ST. CHARLES OFFSITE IMPROVEMENTS)

PROJECT NUMBER: CMAQ-5414(614)

The following addendums to the plans and project specifications are proposed:

- 1) Contractor is to note that tracer wire for the watermain must be 8 gauge solid copper coated wire or 10 gauge copper coated steel wire.
- 2) Contractor is to note that all inlets on MoDOT right of way (North of Station 42+92) will be constructed to the MoDOT standard specifications, and all inlets outside of MoDOT right of Way shall be constructed to the Metropolitan St. Louis Sewer District's Standards.
- 3) Contractor is to note that the concrete slope protection is to be constructed per MoDOT standards and Specifications.
- 4) Contractor is to note that all concrete slabs not within the limits of construction that is damaged during construction shall be removed and completely replaced at the contractor's sole expense. Contractor should document the preconstruction condition of all adjacent concrete slabs prior to construction to verify preconstruction condition.
- 5) Contractor is to note that granular backfill shall be placed under all proposed sidewalks and islands.
- 6) A sheet (C3.9) was added to the construction drawings to clarify proposed sawcut limits.
- 7) The location of the existing 12" watermain near QuikTrip is shown in a revised location. This location is to be considered approximate. Contractor shall field verify prior to excavation.
- 8) The Itemized Bid Sheet has changed reflecting revised quantity of ductbank work required as part of the bid alternate work. (see attached revised Itemized Bid Sheet)

The contractor must acknowledge this addendum by signing this addendum and including the signed addendum in the contract bid document. Failure to include the signed addendum may result in the contractor's bid being rejected.

CONTRACTOR NAME: _____

CONTRACTOR'S SIGNATURE: _____

CONTRACTOR'S NAME (PRINT): _____

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	UNIT PRICE WRITTEN IN WORDS	TOTAL COST
	TRAFFIC SIGNALS, LIGHTING, SIGNING AND STRIPING (CONTINUED)					
903-50.69	SHR4L-1 Signage	322.5	SF			
903-99.02	Illuminated Street Name Signs	15	EA			
	SUBTOTAL TRAFFIC SIGNALS/LIGHTING/ SIGNING AND STRIPING ITEMS					
	TOTAL PRICE(BASE BID)					
<p>ALTERNATE BID: The bidder should complete the following section per the plans shown in the Alternate Bid section of the plan set. Failure to provide an Alternate Bid may result in the submitted bid being unresponsive. The bidder proposes to furnish all labor, materials, equipment, services, etc. required for the performance and completion of the work, as follows:</p>						
ITEM NO.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	UNIT PRICE WRITTEN IN WORDS	TOTAL COST
	ALTERNATE BID-BURYING ELECTRIC SERVICE					
603-10.09	Expose Water Service Lead	1	EA			
618-10.00	Bond and Mobilization	1	LS			
627-40.00	Construction Surveying	1	LS			
803-99.05A	Sodding	500	SY			
901-30.99A	1 Conduit System (Concrete Encased)	49	LF			
901-30.99B	2 Conduit System (Concrete Encased)	205	LF			
901-30.99C	3 Conduit System (Concrete Encased)	50	LF			
901-30.99D	4 Conduit System (Concrete Encased)	71	LF		1	
901-30.99E	8 Conduit System (Concrete Encased)	375	LF			
901-30.99F	11 Conduit System (Concrete Encased)	163	LF			
901-30.99G	12 Conduit System (Concrete Encased)	237	LF			
901-30.99G	13 Conduit System (Concrete Encased)	6	LF			
	TOTAL BID ALTERNATE PRICE					
	TOTAL BID ALTERNATE AND BASE BID					

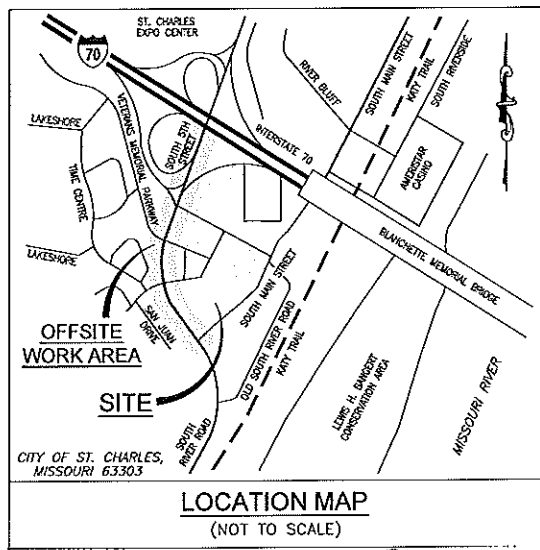
STREETS OF ST. CHARLES - OFFSITE ROAD IMPROVEMENTS

FEDERAL PROJECT NO. CMAQ - 5414 (614) 5TH STREET INTERSECTION IMPROVEMENTS CITY OF ST. CHARLES, ST. CHARLES COUNTY, MISSOURI

LEGEND

EXISTING	PROPOSED
CONTOURS	CONTOURS
SPOT GRADE	SPOT GRADE
TREE LINE	TREE LINE
TREE	TREE
BUSH	BUSH
STORM MANHOLE	STORM MANHOLE
AREA INLET	AREA INLET
CURB INLET	CURB INLET
GRADED INLET	GRADED INLET
FLARED END SECTION	FLARED END SECTION
STORM SEWER	STORM SEWER
GRATED MANHOLE	GRATED MANHOLE
STORM DESIGNATOR	STORM DESIGNATOR
DOWNSPOUT	DOWNSPOUT
DRAINAGE PIPE	DRAINAGE PIPE
SWALE/SLOPE INDICATOR	SWALE/SLOPE INDICATOR
SANITARY MANHOLE	SANITARY MANHOLE
SANITARY SEWER	SANITARY SEWER
CLEAN OUT	CLEAN OUT
SANITARY DESIGNATOR	SANITARY DESIGNATOR
UTILITY POLE	UTILITY POLE
GUIDE WIRE	GUIDE WIRE
OVERHEAD UTILITY	OVERHEAD UTILITY
UNDERGROUND ELECTRIC	UNDERGROUND ELECTRIC
ELECTRIC MARKER	ELECTRIC MARKER
ELECTRIC METER	ELECTRIC METER
ELECTRIC BOX	ELECTRIC BOX
ELECTRIC PULL BOX	ELECTRIC PULL BOX
ELECTRIC TRANSFORMER	ELECTRIC TRANSFORMER
ELECTRIC MANHOLE	ELECTRIC MANHOLE
UNDERGROUND TELEPHONE	UNDERGROUND TELEPHONE
FIBER OPTIC MARKER	FIBER OPTIC MARKER
CABLE MARKER	CABLE MARKER
GAS LINE	GAS LINE
GAS VALVE	GAS VALVE
GAS METER	GAS METER
GAS MARKER	GAS MARKER
WATER LINE	WATER LINE
WATER VALVE	WATER VALVE
WATER METER	WATER METER
FIRE HYDRANT	FIRE HYDRANT
SIGN	SIGN
MAIL BOX	MAIL BOX
TEST HOLE	TEST HOLE
LIGHT STANDARD	LIGHT STANDARD
FENCE	FENCE
BOLLARD	BOLLARD
RETAINING WALL	RETAINING WALL
CONCRETE PAVEMENT	CONCRETE PAVEMENT
ASPHALT PAVEMENT	ASPHALT PAVEMENT
SILTATION FENCE	SILTATION FENCE
AIR CONDITIONER	AIR CONDITIONER
FLAG POLE	FLAG POLE
MONITORING WELL	MONITORING WELL
PARKING METER	PARKING METER
PLANTER	PLANTER
SPRINKLER CONTROL BOX	SPRINKLER CONTROL BOX
SPRINKLER	SPRINKLER
SPRINKLER VALVE	SPRINKLER VALVE
TRAFFIC CONTROL BOX	TRAFFIC CONTROL BOX
TRAFFIC POLE	TRAFFIC POLE
YARD LIGHT	YARD LIGHT
GUARD RAIL	GUARD RAIL
PROPERTY LINE	PROPERTY LINE
EASEMENT	EASEMENT
SETBACK	SETBACK
INLET PROTECTION	INLET PROTECTION
TRUNCATED DOMES	TRUNCATED DOMES
PAVERS	PAVERS

FINAL PLANS



CITY OF ST. CHARLES: *Debra K. Aylsworth*
DEBRA K. AYLSWORTH, PE-DIRECTOR OF PUBLIC WORKS

PERTINENT DATA

WANDENBERG'S = PG 49 ORD 00-20
WATERSHED = MISSOURI RIVER
FEMA MAP PANEL = 2218300269 E (REV. 8/2/85)
ZONE X & AE

PROJECT LENGTH

5TH STREET	1,324 LF
I-70 EASTBOUND OFF RAMP	510 LF
LONGWATER STREET	144 LF
VETERANS MEMORIAL PARKWAY	430 LF
NICHOLS ROAD	84 LF
SOUTH 5TH STREET	316 LF
DAWELBACK ROAD	161 LF
SOUTH RIVER ROAD	843 LF
SOUTH MAIN STREET	280 LF
TOTAL LENGTH	4,722 LF

SCALES:

TYPICALS _____ 1" = 5'
PLAN _____ 1" = 20'
PROFILE _____ 1" = 20' HORIZ & 5' VERT
CROSS SECTION _____ 1" = 5' HORIZ & 5' VERT

UTILITIES

WATER SERVICE =	CITY OF ST. CHARLES 200 NORTH SECOND ST. ST. CHARLES, MO 63301 CONTACT: DAVE RENDLEMAN (636) 948-3550	FIRE DISTRICT =	CITY OF ST. CHARLES FIRE DEPARTMENT 200 NORTH SECOND ST. ST. CHARLES, MO 63301 FIRE MARSHAL: ROY ONEY (636) 948-3253
SEWER DISTRICT =	CITY OF ST. CHARLES 200 NORTH SECOND ST. ST. CHARLES, MO 63301 CONTACT: ERIC ALLISON (636) 948-3237	ELECTRIC SERVICE =	AMEREN UE ST. CHARLES DISTRICT 2100 BLUESTONE DR. ST. CHARLES, MO 63303 CONTACT: MARK PLESSO (636) 925-3214
CABLE SERVICE =	CHARTER COMMUNICATIONS 4282 SHORELINE DR. EARTH CITY, MO 63045 CONTACT: COOY BOKK (636) 387-6643	GAS SERVICE =	LACLERE GAS COMPANY 3550 FOREST PARK BLVD. ST. LOUIS, MO 63108 CONTACT: KENT TREWEMET (314) 658-5567
PHONE SERVICE =	AT&T 402 NORTH THIRD ST. ST. CHARLES, MO 63301 CONTACT: TONYA WELLS (636) 948-1320		

BENCHMARK

BENCHMARK INFORMATION: CITY OF ST. CHARLES SURVEY DSK STAMPED CSC 04
2003, HIGHEST ELEVATION OF 522.77 US FT.
SITE BENCHMARK SET FROM ROAD WITH STAMPED COLE ALUMINUM CAP BEING
BETWEEN THE OFF RAMP AND THE ON RAMP OF THE EXISTING LANES FOR
INTERSTATE 70 ON THE WEST SIDE OF FIFTH STREET, WHERE THE TRAFFIC
SIGNAL POLE (BEING BETWEEN SAID RAMP) IS AT STATION 37+15.81 WITH AN
OFFSET OF 42.74 FEET AND THE IRON ROD IS AT STATION 36+15.41 WITH AN
OFFSET OF 62.38 FEET HAVING AN ELEVATION OF 512.72 FEET.

INDEX

		1	2	3	4	5	6	7	8	9
C1.1	COVER SHEET									
C1.2	SPECIFICATIONS SHEET									
C1.3-C1.5	SWPPP									
C2.1-C2.5	TYPICAL SECTIONS									
C2.6-C2.7	QUANTITY SHEETS									
C3.0	OVERALL PLAN SHEET									
C3.1-C3.8	PLAN & PROFILE									
C3.9	SAWCUT LIMITS									
C3.10-C3.41	TRAFFIC SIGNAL PLANS									
C4.1-C4.3	WARPING PLAN									
C4.4-C4.5	OVERALL R.O.W. PLAN									
C5.1-C5.3	STORM PROFILES									
C5.4	RETAINING WALL PROFILES									
C6.1	DRAINAGE AREA MAP									
C6.2	WATERLINE RELOCATION PLAN & PROFILE									
C6.3	WATER DETAILS									
C7.1-C7.8	TRAFFIC CONTROL									
C8.1-C8.2	PAVEMENT MARKING & SIGNAGE PLAN									
C9.1-C9.12	DETAILS									
C10.1-C10.14	5TH STREET CROSS SECTIONS									
C11.1-C11.8	RAMP 2 CROSS SECTIONS (I-70 EB OFF)									
C12.1-C12.5	VET. MEM. CROSS SECTIONS									
C13.1-C13.5	SOUTH 5TH CROSS SECTIONS									
C14.1-C14.3	SOUTH MAIN CROSS SECTIONS									
C15.1-C15.6	ROAD SIGN CROSS SECTIONS									

ABBREVIATIONS

A	AREA INLET
ADJ	ADJUST TO GRADE
BN	BOTTOM OF WALL
CI	CURB INLET
COAC	CONCRETE
ELEV	ELEVATION
EX	EXISTING
ESMT	EASEMENT
FES	FLARED END SECTION
FH	FIRE HYDRANT
FL	FLOWLINE
HP	HIGH POINT
LP	LOW POINT
WH	MANHOLE
NIS	NOT TO SCALE
POE	PROPOSED DRAINAGE EASEMENT
PR	PROPOSED
POL	PROFILE GRADE LINE
PVI	POINT OF VERTICAL INTERSECTION
RCP	REINFORCED CONCRETE PIPE
RHW	RIGHT OF WAY
SAN	SANITARY
SSD	STOPPING SIGHT DISTANCE
ST&SF	STREET
TS&SF	TO BE ABANDONED & FILLED
TS&D	TO BE INSTALLED BY OTHERS
TR	TO BE REMOVED
TR&R	TO BE REMOVED & REPLACED
TR&REL	TO BE REMOVED & RELOCATED
TR&RELSB	TO BE REMOVED & RELOCATED BY OTHERS
T&E	TEMPORARY CONSTRUCTION EASEMENT
TEMP	TEMPORARY
TI	TOP OF WALL
TOP	TOP OF ROAD
U&P	USE IN PLACE
USP	JOB SPECIAL PROVISIONS

ALL UNDERGROUND UTILITIES SHOWN HAVE BEEN PLOTTED FROM AVAILABLE INFORMATION, AND THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THE VERIFICATION OF ALL UTILITIES SHOWN OR NOT SHOWN SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE LOCATED PRIOR TO ANY GRADING OR CONSTRUCTION OF IMPROVEMENTS.



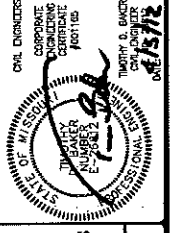
CALL 1-800-DIG-RITE (MISSOURI ONE CALL) TO HAVE LOCATIONS MARKED IN THE FIELD (SUSBORING UTILITIES REQUIRE 48 HOURS NOTICE PRIOR TO CONSTRUCTION).

NO.	DATE	REVISION DESCRIPTION
1	10/27/12	

DEVELOPER/OWNER:
CULLINAN PROPERTIES, LTD.
1000 N. MAIN ST.
ST. CHARLES, MO 63303
PH: (636) 757-1100
FAX: (636) 757-1100

DESIGNER/ENGINEER:
COLE ENGINEERING & ASSOCIATES, INC.
1243 ION GARDNER AVE.
ST. CHARLES, MO 63306
PH: (636) 925-7000
FAX: (636) 925-7009

DATE: 10/27/12



STREETS OF ST. CHARLES
- OFFSITE ROAD IMPROVEMENTS
FEDERAL PROJECT NO. CMAQ - 5414 (614)
5TH STREET INTERSECTION IMPROVEMENTS
FIFTH STREET
ST. CHARLES, MO 63303

ST. CHARLES
1243 ION GARDNER AVE.
ST. CHARLES, MO 63306
636.925.7000 ext
636.925.7009 fax

COLE
CIVIL ENGINEERING / SURVEYING / PLANNING / LANDSCAPE ARCHITECTURE
Cole & Associates, Inc.

DESIGN/OLD BY	MJM
DRAWN BY	MJM
CHECKED BY	TCB
DRAWING SCALE	
DATE	10-13/2011
Job Number	10-0006
Sheet Number	C1.1

USER: Tim Baker, 10/27/12, 10:11 AM, PROJECT: STREETS OF ST. CHARLES - OFFSITE ROAD IMPROVEMENTS, C:\WORK\ST-CHARLES\ST-CHARLES-05-12\DWG\ST-CHARLES-05-12-01.dwg

CITY OF ST. CHARLES

STANDARD NOTES

- 1. ALL IMPROVEMENTS CONSTRUCTED HEREIN SHALL COMPLY WITH THE CODE OF ORDINANCES OF THE CITY OF ST. CHARLES.
2. IF PROPERTY IS GREATER THAN 1 ACRE, A LAND DISTURBANCE PERMIT FROM THE MISSOURI DEPARTMENT OF NATURAL RESOURCES IS REQUIRED PRIOR TO COMMENCING ANY DEMOLITION, CLEARING OR CONSTRUCTION ON SITE.
3. SILTATION CONTROL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE IN ACCORDANCE WITH THE SHEFF PLAN.
4. WHEN GRADING OPERATIONS ARE COMPLETED OR SUSPENDED FOR MORE THAN 30 DAYS, PERMANENT GRASS MUST BE ESTABLISHED TO CONTROL EROSION.
5. ALL MUD AND DEBRIS FROM CONSTRUCTION SITE TO BE KEPT OFF OF CITY MAINTAINED STREETS.
6. HANDCAP SPACES CANNOT HAVE A GRADE IN EXCESS OF 2% IN ANY DIRECTION.
7. HANDCAP ACCESSIBLE ROUTES AND RAMPS CANNOT HAVE A CROSS SLOPE IN EXCESS OF 2%.
8. ALL WATER MAIN CONSTRUCTION INCLUDING VALVES, SLEEVES, METERS, HYDRANTS AND FITTINGS MUST CONFORM TO CITY OF ST. CHARLES WATER REGULATIONS.
9. WHEN A SANITARY SEWER LATERAL CROSSES OVER A WATER LINE, A MINIMUM VERTICAL CLEARANCE OF 18" SHALL BE PROVIDED.
10. ALL SANITARY SEWER CONSTRUCTION MUST CONFORM TO THE LATEST VERSION OF THE METROPOLITAN ST. LOUIS SEWER DISTRICT'S STANDARDS AND SPECIFICATIONS.
11. ALL STREET AND SIDEWALK CONSTRUCTION IS TO BE PER THE LATEST ST. CHARLES CITY STANDARDS.
12. FLOWABLE FILL BACKFILL SHALL BE USED FOR ALL BACKFILL ON SEWER TRENCHES THAT ARE UNDER CITY STREETS.
13. EARTH BACKFILL (MEETING MSD STANDARDS) MAY BE USED OUTSIDE OF PAVED AREAS.
14. ALL STORM SEWER DESIGN IS TO CONFORM TO THE CITY OF ST. CHARLES DESIGN REQUIREMENTS.
15. ALL STORM SEWER CONSTRUCTION IS TO BE PER THE LATEST EDITION OF THE METROPOLITAN ST. LOUIS SEWER DISTRICT (MSD) STANDARD CONSTRUCTION SPECIFICATIONS FOR SEWERS AND DRAINAGE FACILITIES.
16. FOR NEW SUBDIVISIONS ONLY: ALL JETTING SHALL BE PERFORMED WITH A PROBE ROUTE ON NOT GREATER THAN 7.5-FOOT CENTERS WITH THE JETTING PROBE CENTERED OVER AND PARALLEL WITH THE DIRECTION OF THE PIPE.
17. ALL PIPE JOINTS AND JOINTS ON NEW STRUCTURES SHALL USE CITY APPROVED RUBBER COMPRESSION TYPE JOINTS.
18. CONCRETE COVERS ON STRUCTURES WILL NOT BE ALLOWED.
19. BROCK STORM AND SANITARY STRUCTURES WILL NOT BE ALLOWED.
20. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR/DEVELOPER TO PROVIDE TRAFFIC CONTROL PER THE LATEST EDITION OF THE MANUAL OF UTILITY LOCATING DEVICES.
21. ALL UTILITIES SHALL BE LOCATED UNDERGROUND.
22. ALL FILLED PLACES UNDER PROPOSED STORM AND SANITARY SEWER AND/OR PAVED AREAS SHALL BE COMPACTED TO 90% OF MAXIMUM DENSITY AS DETERMINED BY THE MODIFIED AASHO T-100 COMPACTION TEST OR 95% OF MAXIMUM DENSITY AS DETERMINED BY THE STANDARD PROCTOR TEST AASHO T-99.
23. ALL FILLED PLACES IN PROPOSED ROADS SHALL BE COMPACTED FROM THE BOTTOM OF THE FILL UP TO 90% MAXIMUM DENSITY AS DETERMINED BY THE MODIFIED AASHO T-100 COMPACTION TEST OR 95% OF MAXIMUM DENSITY AS DETERMINED BY THE STANDARD PROCTOR TEST AASHO T-99. ALL TESTS SHALL BE REPEATED BY A SOILS ENGINEER CONCURRENT WITH GRADING AND BACKFILLING OPERATIONS.
24. GRADES CANNOT EXCEED A 3:1 SLOPE.
25. CONSTRUCTION ACTIVITIES SHALL ADOBE BY THE MOSE RESTRICTIONS AS OUTLINED IN CODE CHAPTER 230.

GENERAL NOTES

- 1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE EXACT HORIZONTAL AND VERTICAL LOCATIONS AND SIZES OF ALL EXISTING UTILITIES, WHETHER SHOWN OR NOT SHOWN ON THIS PLAN, PRIOR TO THE START OF ANY CONSTRUCTION.
2. SLEUTION CONTROL SHALL BE UTILIZED DURING CONSTRUCTION TO PREVENT SILTATION FROM PLACING ONTO THE ADJACENT STREETS & PROPERTIES.
3. PROPERTY BOUNDARY AND TOPOGRAPHIC SURVEY DONE BY COLE AND ASSOCIATES INC.
4. ALL MATERIALS AND METHODS OF CONSTRUCTION TO MEET THE CURRENT STANDARDS AND SPECIFICATIONS AS REQUIRED BY THE CITY OF ST. CHARLES, MO.
5. THE CONTRACTOR MUST BE ON FILE WITH THE MISSOURI ONE CALL SYSTEM 1-800-344-7433.
6. ALL PROPOSED UTILITIES ON THIS SITE MUST BE LOCATED UNDERGROUND.
7. THE GENERAL CONTRACTOR SHALL FLAG ALL SANITARY AND STORM SEWER STRUCTURES WITH A 24" PAINTED ORANGE AND MARKED TO READ "STORM SEWER STRUCTURE OR SANITARY SEWER STRUCTURE DO NOT BURY".
8. SAFETY NOTICE TO CONTRACTOR: IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK.
9. NO MONUMENT SIGNS OR THEIR PROPOSED LOCATIONS CAN BE APPROVED WITH THESE DOCUMENTS.
10. ALL PRIVATE SEWERS ARE UNDER THE CITY OF CHARLES INSPECTION.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE RAZING AND REMOVAL OF THE EXISTING STRUCTURES, INCLUDING FOUNDATIONS, RELATED UTILITIES, PAVING, UNDERGROUND FACILITIES AND ANY OTHER EXISTING IMPROVEMENTS.
12. CONTRACTOR IS TO REMOVE AND DISPOSE OF, OFF SITE, ALL DEBRIS, RUBBISH AND OTHER MATERIALS RESULTING FROM DEMOLITION OPERATIONS.
13. THE CONTRACTOR WILL BE HELD SOLELY RESPONSIBLE AND SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID DAMAGE TO ADJACENT PROPERTIES DURING ALL PHASES OF THIS PROJECT.
14. BURNING ON SITE WILL BE ALLOWED IF APPROVED BY EPA AND THE CITY OF ST. CHARLES.
15. DISPOSAL OF MATERIAL ON-SITE WILL ONLY BE ALLOWED AS DIRECTED BY THE OWNER AND GEOTECHNICAL ENGINEER AND APPROVED BY THE CITY OF ST. CHARLES PUBLIC WORKS DEPARTMENT.
16. THE SITE IMPROVEMENT PLANS APPROVED BY THE CITY OF ST. CHARLES DOES NOT ALLOW THE REMOVAL OR CONSTRUCTION OF ANY SANITARY OR STORM SEWER LINES WITHOUT THE PRIOR APPROVAL OR CONSENT OF THE CITY.
17. THE CONTRACTOR SHALL RESTORE OFFSITE CONSTRUCTION AREAS TO AN EQUAL OR BETTER CONDITION THAN EXISTED PRIOR TO THE COMMENCEMENT OF WORK.
18. PROVISIONS SHALL BE MADE TO ACCOMMODATE THE INCREASED RUNOFF CAUSED BY CHANGED SOIL AND SURFACE CHARACTERISTICS AND AFTER GRADING.
19. ALL FILLED PLACES IN PROPOSED ROADS SHALL BE COMPACTED FROM THE BOTTOM OF THE FILL UP TO 90% MAXIMUM DENSITY AS DETERMINED BY THE MODIFIED AASHO T-100 COMPACTION TEST OR 95% OF MAXIMUM DENSITY AS DETERMINED BY THE STANDARD PROCTOR TEST AASHO T-99.
20. ALL PUBLIC ROADS MUST BE KEPT CLEAR OF MUD AND DEBRIS AT ALL TIMES.
21. WHERE NATURAL VEGETATION IS REMOVED DURING GRADING, VEGETATION SHALL BE REESTABLISHED IN SUCH A DENSITY AS TO PREVENT EROSION.
22. RUNOFF WATER FROM DEVELOPED AREAS (PARKING LOTS, PAVED STILES, AND BUILDINGS) ABOVE THE AREA TO BE GRADED SHALL BE DIRECTED TO DRAINAGE BASINS, CONCRETE DITCHES AND UNDERGROUND OUTLET SYSTEMS.
23. ALL CONSTRUCTION METHODS AND PRACTICES TO CONFORM WITH OSHA STANDARDS.
24. ANY RETAINING WALLS REFERRED TO IN THESE PLANS ARE SHOWN FOR REFERENCE ONLY AND ARE NOT TO BE INTERPRETED AS DESIGN OF THE PROJECT.
25. A SEPARATE PERMIT IS REQUIRED FROM MODOT FOR ANY WATER TAPS WHEN MODOT RIGHT OF WAY.
26. ALL UTILITY CROSSINGS AT 5TH STREET WILL NEED TO BE BORED PER MODOT STANDARDS.
27. THE CONTRACTOR WILL BE RESPONSIBLE FOR SPOTTING THE LOCATION OF ALL SIGNAL EQUIPMENT.
28. WATER MAIN TRACER TAPE TO BE INSTALLED WITH ALL WATER MAIN AND SHALL CONSIST OF THREE INCH WIDE TAPE MADE OF BONDED LAYER PLASTIC WITH A METALLIC FOLY CORE.
29. WATER MAIN LOCATOR WIRE SHALL BE INSTALLED WITH ALL WATER MAIN FITTINGS, AND VALVE INSTALLATION AND SHALL CONSIST OF A 1/8 GAUGE SOLID COPPER COATED WIRE OR 1/2 GAUGE COPPER COATED STEEL WIRE WITH INSULATION FOR 600 VOLTS.
30. ALL VALVES FOR OUTSIDE USE SHALL BE BURIED DATE VALVES WITH A COVER BOX AND TWO INCH SQUARE NUT ATTACHMENT FOR MANUAL OPERATION WITH STANDARD VALVE WRENCH.
31. HYDRANTS SHALL BE WELLSER "CONTRIPRO" OR THE AMERICAN DURING MODEL NO. "B-84-B".
32. CONCRETE FOR THRUST BLOCKING AT BENDS, TEES, VALVES, HYDRANTS, ETC., SHALL BE 3500 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
33. BEFORE WATER MAINS SHALL BE ACCEPTED AND PUT INTO SERVICE THEY SHALL BE TESTED FOR TWO HOURS ON EACH SEWER MAIN END POINTS AT A TEST PRESSURE OF AT LEAST 50% IN EXCESS OF NORMAL WASHAW OPERATING PRESSURE, NOT TO EXCEED 200 PSI.
34. ALL WATER LINES AND SERVICE LINES SHALL HAVE A MINIMUM OF 42" OF COVER.
35. VERTICAL CLEARANCE BETWEEN SEWERS AND WATER MAINS SHALL BE A MINIMUM OF 2'-0".

WATER LINE NOTES

- 1. ALL MATERIALS AND METHODS OF CONSTRUCTION FOR WATER MAINS TO MEET REQUIREMENTS OF THE CITY OF ST. CHARLES.
2. WATER MAINS SHALL BE POLY VINYL CHLORIDE (PVC) CLASS 200, SDR 21 PIPE CONFORMING TO A.S.T.M. SPECIFICATION D-2688.
3. DUCTILE IRON PIPE MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL THE REQUIREMENTS OF U.S.A. STANDARD A1511 (A.W.W.A. C-151-03).
4. WATER MAIN TRACER TAPE TO BE INSTALLED WITH ALL WATER MAIN AND SHALL CONSIST OF THREE INCH WIDE TAPE MADE OF BONDED LAYER PLASTIC WITH A METALLIC FOLY CORE.
5. WATER MAIN LOCATOR WIRE SHALL BE INSTALLED WITH ALL WATER MAIN FITTINGS, AND VALVE INSTALLATION AND SHALL CONSIST OF A 1/8 GAUGE SOLID COPPER COATED WIRE OR 1/2 GAUGE COPPER COATED STEEL WIRE WITH INSULATION FOR 600 VOLTS.
6. ALL VALVES FOR OUTSIDE USE SHALL BE BURIED DATE VALVES WITH A COVER BOX AND TWO INCH SQUARE NUT ATTACHMENT FOR MANUAL OPERATION WITH STANDARD VALVE WRENCH.
7. VALVE BOXES FOR USE SHALL BE THE SCREW-TYPE, EXTENSION SLEEVE KIND, OR P.V.C. PIPE.
8. HYDRANTS SHALL BE WELLSER "CONTRIPRO" OR THE AMERICAN DURING MODEL NO. "B-84-B".
9. CONCRETE FOR THRUST BLOCKING AT BENDS, TEES, VALVES, HYDRANTS, ETC., SHALL BE 3500 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
10. BEFORE WATER MAINS SHALL BE ACCEPTED AND PUT INTO SERVICE THEY SHALL BE TESTED FOR TWO HOURS ON EACH SEWER MAIN END POINTS AT A TEST PRESSURE OF AT LEAST 50% IN EXCESS OF NORMAL WASHAW OPERATING PRESSURE, NOT TO EXCEED 200 PSI.
11. ALL WATER LINES AND SERVICE LINES SHALL HAVE A MINIMUM OF 42" OF COVER.
12. VERTICAL CLEARANCE BETWEEN SEWERS AND WATER MAINS SHALL BE A MINIMUM OF 2'-0".

GRADING NOTES

- 1. ALL GRADES ARE TO FINISH GRADE OR FINISH ELEVATION.
2. SLEUTION CONTROL SHALL BE UTILIZED DURING CONSTRUCTION TO PREVENT SILTATION FROM PLACING ONTO THE ADJACENT STREETS & PROPERTIES.
3. WASHAW SLOPE (EXCLUDING NOTED TEMPORARY SLOPES) SHALL BE 3 HORIZ. TO 1 VERT. (3:1) UNLESS APPROVED BY A GEOTECHNICAL ENGINEER.
4. ALL EXCAVATIONS, GRADING, OR FILLING SHALL HAVE A FINISHED GRADE NOT TO EXCEED A 3:1 SLOPE (3% PERCENT) UNLESS APPROVED BY A GEOTECHNICAL ENGINEER.
5. ALL GRADING AND DRAINAGE SHALL MEET THE CITY OF ST. CHARLES SPECIFICATIONS AND AS SPECIFIED IN SOILS REPORT.
6. ADDITIONAL SILTATION CONTROL DEVICES MAY BE REQUIRED BY CITY OF ST. CHARLES.
7. THE GRADING CONTRACTOR SHALL ESTABLISH THE SILTATION CONTROL AND BE INSPECTED BY THE CITY OF ST. CHARLES PRIOR TO BEGINNING THE GRADING.
8. THE GRADING CONTRACTOR SHALL MAINTAIN THE SILTATION CONTROL DEVICES SO AS TO PREVENT SILT FROM BYPASSING THEM.
9. THE CITY OF ST. CHARLES CITY ENGINEER SHALL BE NOTIFIED A MINIMUM OF 48 HOURS PRIOR TO THE COMMENCEMENT OF THE GRADING TO VERIFY SILT CONTROL INSTALLATION.
10. DURING THE GRADING OPERATION ADDITIONAL SILTATION CONTROL MEASURES MAY BE REQUIRED AS DIRECTED BY THE CITY OF ST. CHARLES.
11. ALL CONSTRUCTION METHODS AND MATERIAL SHALL CONFORM TO CURRENT CITY OF ST. CHARLES STANDARDS.
12. IF CUT AND FILL OPERATIONS OCCUR DURING A SEASON NOT FAVORABLE FOR IMMEDIATE ESTABLISHMENT OF A PERMANENT GRASS COVER, SEE TABLE 1 OR TABLE 2 SHEET C1.1.
13. INSTALL SILTATION CONTROL FENCING AS SOON AS SITE IS BROUGHT TO FINAL GRADE.
14. EXISTING AREAS OF SOFT SOILS AND ORGANIC DEBRIS SHALL BE COMPLETELY REMOVED.
15. ANY DISTURBED OFF-SITE PROPERTY (I.E. BUSHES, FENCES, MAILBOXES, ETC.) SHALL BE REPLACED.
16. IF THE PROPERTY IS GREATER THAN ONE ACRE, A LAND DISTURBANCE PERMIT IS REQUIRED PRIOR TO COMMENCING EXCAVATION OPERATION.
17. SLEUTION CONTROL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
18. WHEN GRADING OPERATIONS ARE SUSPENDED FOR MORE THAN 30 DAYS, PERMANENT GRASS MUST BE ESTABLISHED TO CONTROL EROSION.
19. ALL MUD AND DEBRIS FROM CONSTRUCTION SITE SHALL BE KEPT OFF OF ALL PUBLIC MAINTAINED STREETS.
20. SILT FENCE TO BE ADJUSTED AS NECESSARY FOR CONSTRUCTION ACTIVITY.
21. ALL GRADED AREAS SHALL BE PROTECTED FROM EROSION BY EROSION CONTROL DEVICES AND/OR MULCHING.
22. ALL FILLS AND BACKFILLS SHALL BE MADE OF SELECTED EARTH MATERIALS, FREE FROM BROKEN MASONRY, ROCK, FROZEN EARTH, RUBBISH, ORGANIC MATERIAL AND DEBRIS.
23. PROPOSED CONTOURS SHOWN ARE FINISHED ELEVATIONS ON PAVED AREAS.
24. ALL FILL PLACES FOR PROPOSED STORM AND SANITARY SEWER LINES AND/OR PAVED AREAS, AND FOR DRAINAGE BEINGS SHALL BE COMPACTED TO 90% OF MAXIMUM DENSITY AS DETERMINED BY THE MODIFIED AASHO T-100 COMPACTION TEST OR 95% OF MAXIMUM DENSITY AS DETERMINED BY THE STANDARD PROCTOR TEST AASHO T-99.
25. A GRADING PERMIT IS REQUIRED PRIOR TO ANY GRADING ON THE SITE.
26. WHEN GRADING OPERATIONS ARE COMPLETED OR SUSPENDED FOR MORE THAN 30 DAYS, PERMANENT GRASS MUST BE ESTABLISHED AT SUFFICIENT DENSITY TO PREVENT EROSION CONTROL ON THE SITE.
27. ALL FINISHED GRADES (AREAS NOT TO BE DISTURBED BY FUTURE IMPROVEMENT) IN EXCESS OF 20% SLOPES (3:1) SHALL BE MULCHED AND TACKED AT THE RATE OF 100 POUNDS PER 1,000 SQUARE FEET WHEN SEEDED.

EARTHWORK NOTES

BULK CUT (SUBGRADE) 65± CUBIC YARD
BULK FILL (SUBGRADE) 5600± CUBIC YARD
NET FILL 5,535± CUBIC YARD
* A 15% SHRINKAGE FACTOR HAS BEEN APPLIED TO BULK CUT

THE ENGINEER HAS CALCULATED THE ABOVE QUANTITIES OF EARTHWORK TO BE PERFORMED AS AN ESTIMATE OF THE BULK MOVEMENT OR REDISTRIBUTION OF SOILS ON THIS PROJECT.
THE QUANTITIES ESTIMATED FOR EACH OF THE IMPROVEMENT ITEMS LISTED ABOVE ARE BASED UPON THE HORIZONTAL AND VERTICAL LOCATION OF THE IMPROVEMENTS AS PROPOSED ON THE SITE ENGINEERING PLANS PREPARED BY COLE AND ASSOCIATES, INC.
THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACTUAL SIZE OF THE FIELD EXCAVATIONS MADE FOR THE INSTALLATION OF UNDERGROUND STRUCTURES, AND AS SUCH, THE ACTUAL QUANTITIES OF EARTHWORK FROM SUCH ITEMS MAY VARY FROM THE ESTIMATE SHOWN ABOVE.

COORDINATE POINTS

Table with 3 columns: Station, Northing, Easting. Title: 5TH STREET COORDINATE POINTS

Table with 3 columns: Station, Northing, Easting. Title: I-70 EAST OFF RAMP COORDINATE POINTS

Table with 3 columns: Station, Northing, Easting. Title: VETERANS MEMORIAL COORDINATE POINTS

Table with 3 columns: Station, Northing, Easting. Title: SOUTH 5TH STREET COORDINATE POINTS

Table with 3 columns: Station, Northing, Easting. Title: SOUTH MAIN STREET COORDINATE POINTS

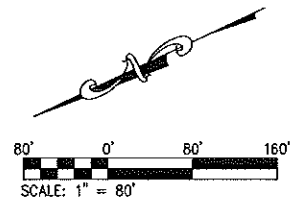
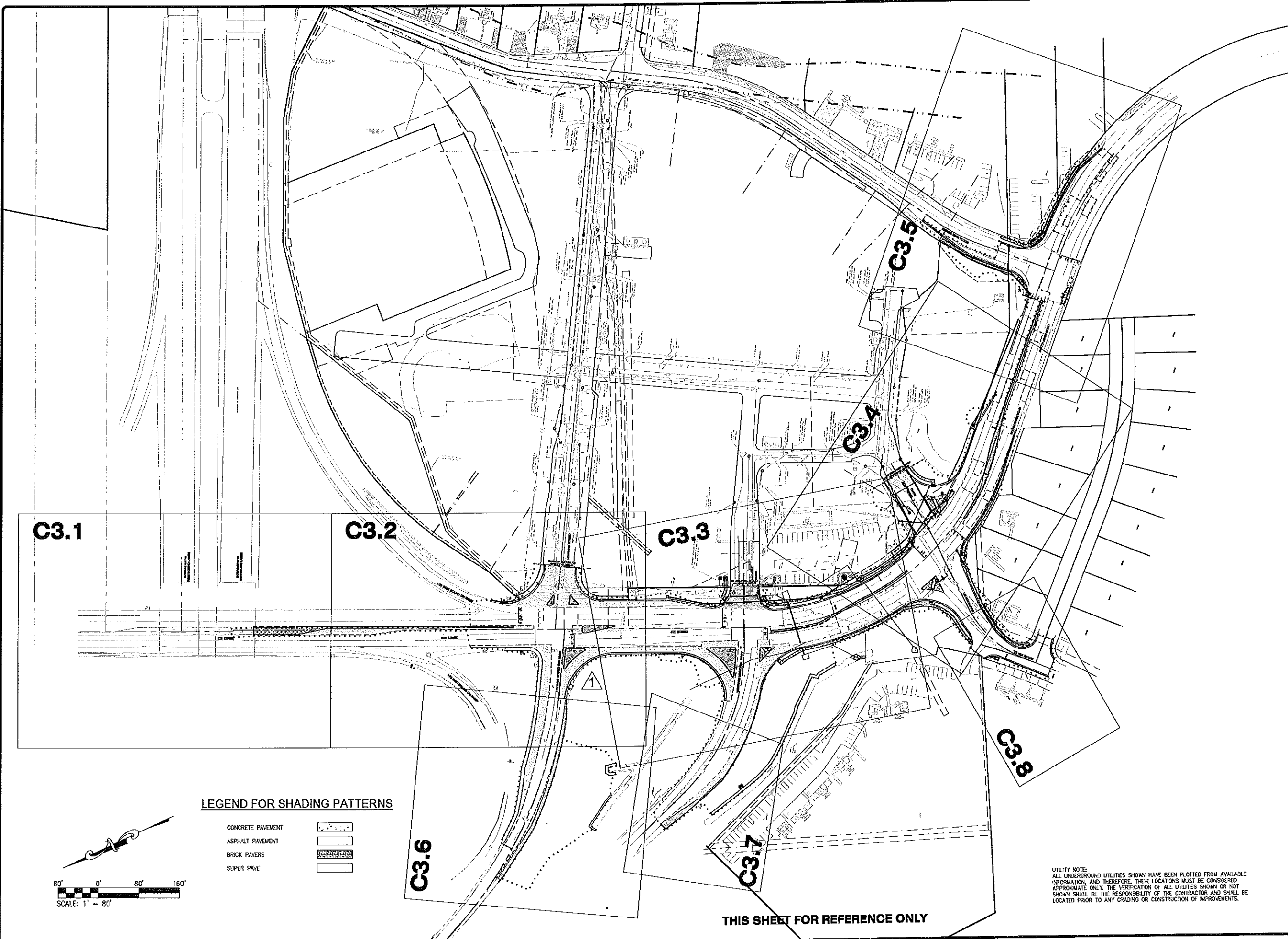
STORM SEWER NOTES

- 1. ALL SEWER CONSTRUCTION AND MATERIALS TO BE IN ACCORDANCE WITH THE METROPOLITAN ST. LOUIS SEWER DISTRICT STANDARD CONSTRUCTION SPECIFICATIONS FOR SEWERS AND DRAINAGE FACILITIES, 2009.
2. FOR SEWER PIPE (STORM, SANITARY, OR COMBINED) WITH A DESIGN GRADE LESS THAN ONE PERCENT (1%), VERIFICATION OF THE PIPE GRADE WILL BE REQUIRED FOR EACH INSTALLED REACH OF SEWER.
3. MAINTENANCE OF THE SEWERS DESIGNATED AS "PUBLIC" SHALL BE THE RESPONSIBILITY OF THE CITY OF ST. CHARLES UNDER DEED OF THE SEWERS TO THE CITY.
4. ALL FILL PLACED UNDER PROPOSED STORM AND SANITARY SEWER LINES AND/OR PAVED AREAS SHALL BE COMPACTED TO 90% OF MAXIMUM DENSITY AS DETERMINED BY THE MODIFIED AASHO T-100 COMPACTION TEST OR 95% OF MAXIMUM DENSITY AS DETERMINED BY THE STANDARD PROCTOR TEST AASHO T-99.
5. REINFORCED CONCRETE PIPE SHALL CONFORM TO CURRENT A.S.T.M. STANDARD C-78, CLASS B, EXCEPT AS NOTED.
6. TYPE "C" BEDDING PER M.S.D. STANDARDS IS REQUIRED FOR ALL PIPES IN ROCK EXCEPT AS NOTED.
7. ALL TRENCHES IN AREAS TO BE PAVED AND UNDER EXISTING PAVEMENT OR WITHIN PUBLIC R.O.W. SHALL BE GRANULARLY BACKFILLED WITH 3/4" INCH MAXIUM CRUSHED LIMESTONE IN ACCORDANCE WITH 2009 M.S.D. STANDARDS.
8. THE SOILS ENGINEER WILL VERIFY THAT ALL COMPRESSIBLE MATERIAL HAS BEEN REMOVED PRIOR TO FILL PLACEMENT AND THAT ALL FILL UNDER STORM AND SANITARY SEWER LINES CONSTRUCTED ABOVE ORIGINAL GRADE, HAS BEEN COMPACTED TO 90% OF "MODIFIED PROCTOR".
9. ALL STORM SEWERS SHALL BE TELETESTED AT THE COMPLETION OF THE PROJECT TO INSURE SEDIMENT HAS NOT ACCUMULATED IN THE PIPE DURING CONSTRUCTION.
10. THE CONTRACTOR IS REQUIRED TO PROVIDE ADEQUATE STORM-WATER SYSTEMS IN ACCORDANCE WITH THE CITY OF ST. CHARLES AND M.S.D. 2009 STANDARDS AND AS SHOWN ON THE PLANS.
11. ALL STORM-WATER SHALL BE DISCHARGED AT AN ADEQUATE NATURAL DISCHARGE POINT.
12. ALL WEETS ON MODOT RIGHT OF WAY (NORTH OF STATION 42194) WILL BE CONSTRUCTED TO THE MODOT STANDARD SPECIFICATIONS, AND ALL WEETS OUTSIDE OF MODOT RIGHT OF WAY SHALL BE CONSTRUCTED TO MSD STANDARDS.

Vertical sidebar containing project information, logos for Cullinan Properties Ltd. and Cole Engineering, and a large 'C1.2' sheet identifier.

Vertical text on the left margin: USER: Tim Bower DATE: 01.2.2011 TIME: 10:00:00 AM...

USER: Jim Lister 2012 C3.0 Overall Plan
 DRAWING: S:\Users\jlist\2012\10-0006\CD\DWG\C3.0-Overall_Plan.dwg



LEGEND FOR SHADING PATTERNS

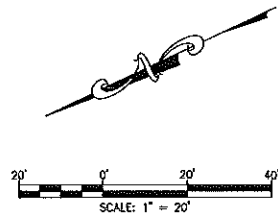
- CONCRETE PAVEMENT
- ASPHALT PAVEMENT
- BRICK PAVERS
- SUPER PAVE

UTILITY NOTE:
 ALL UNDERGROUND UTILITIES SHOWN HAVE BEEN PLOTTED FROM AVAILABLE INFORMATION, AND THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THE VERIFICATION OF ALL UTILITIES SHOWN OR NOT SHOWN SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE LOCATED PRIOR TO ANY GRADING OR CONSTRUCTION OF IMPROVEMENTS.

THIS SHEET FOR REFERENCE ONLY

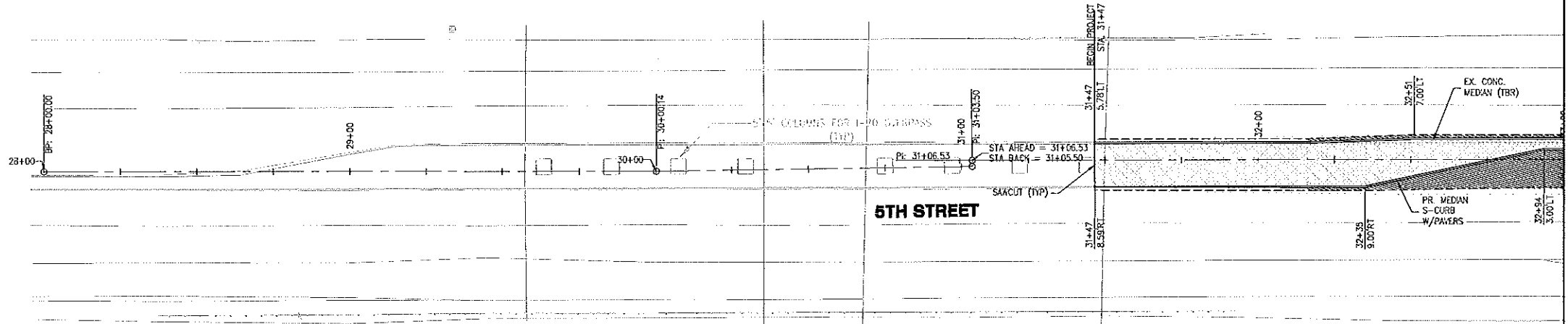
<p>STREETS OF ST. CHARLES - OFFSITE ROAD IMPROVEMENTS FEDERAL PROJECT NO. CMAQ - 544 (64) 5TH STREET INTERSECTION IMPROVEMENTS 5TH STREET FIFTH STREET ST. CHARLES, MD 21053</p>	<p>OVERALL PLAN</p>	<p>DEVELOPER/OWNER: CULLINAN PROPERTIES, LTD. ST. CHARLES, MD 21033 PH. (410) 757-1150 FX. (410) 757-1159</p>	<p>CIVIL ENGINEER: THOMAS B. BUCK CIVIL ENGINEER STATE OF MARYLAND LICENSE NO. 10642 EXPIRES 12/31/12 DATE: 12/15/12</p>	<p>REVISIONS:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>NO.</th> <th>REVISION DESCRIPTION</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>REVISED PROPOSED STRIPING</td> <td>10/1/12</td> </tr> </tbody> </table>	NO.	REVISION DESCRIPTION	DATE	1	REVISED PROPOSED STRIPING	10/1/12
NO.	REVISION DESCRIPTION	DATE								
1	REVISED PROPOSED STRIPING	10/1/12								
<p>ST. CHARLES 1243 Two Glenmont Ave. OTHello, MD 21036 410.974.7500 or 410.974.7509 fax</p>		<p>COLE CIVIL ENGINEERING / SURVEYING / PLANNING / LANDSCAPE ARCHITECTURE Cole & Associates, Inc.</p>								
<p>DESIGN/CALC BY: MJM DRAWN BY: MJM CHECKED BY: TCB DRAWING SCALE: DATE: 1/24/2012</p>		<p>Job Number 10-0006 Sheet Number C3.0</p>								

USER: Tim Blaney TAB: C3.1 PLAN
 DATE: October 4, 2012 10:00:12 AM
 DRAWING: S:\Projects\2012\10-04-2012\CAD\DWG\C3.1-04-2012.dwg



LEGEND FOR SHADING PATTERNS

- CONCRETE PAVEMENT
- ASPHALT PAVEMENT
- BRICK PAVERS
- SUPER PAVE



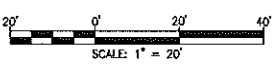
MATCHLINE STA. 33+00
 SEE SHEET C3.2

NOTE:
 SEE SIGNAL AND LIGHTING PLANS FOR ALL IMPROVEMENTS AND/OR MODIFICATIONS TO EXISTING SIGNALS AND LIGHTING.

UTILITY NOTE:
 ALL UNDERGROUND UTILITIES SHOWN HAVE BEEN PLOTTED FROM AVAILABLE INFORMATION, AND THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THE VERIFICATION OF ALL UTILITIES SHOWN OR NOT SHOWN SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE LOCATED PRIOR TO ANY GRADING OR CONSTRUCTION OF IMPROVEMENTS.

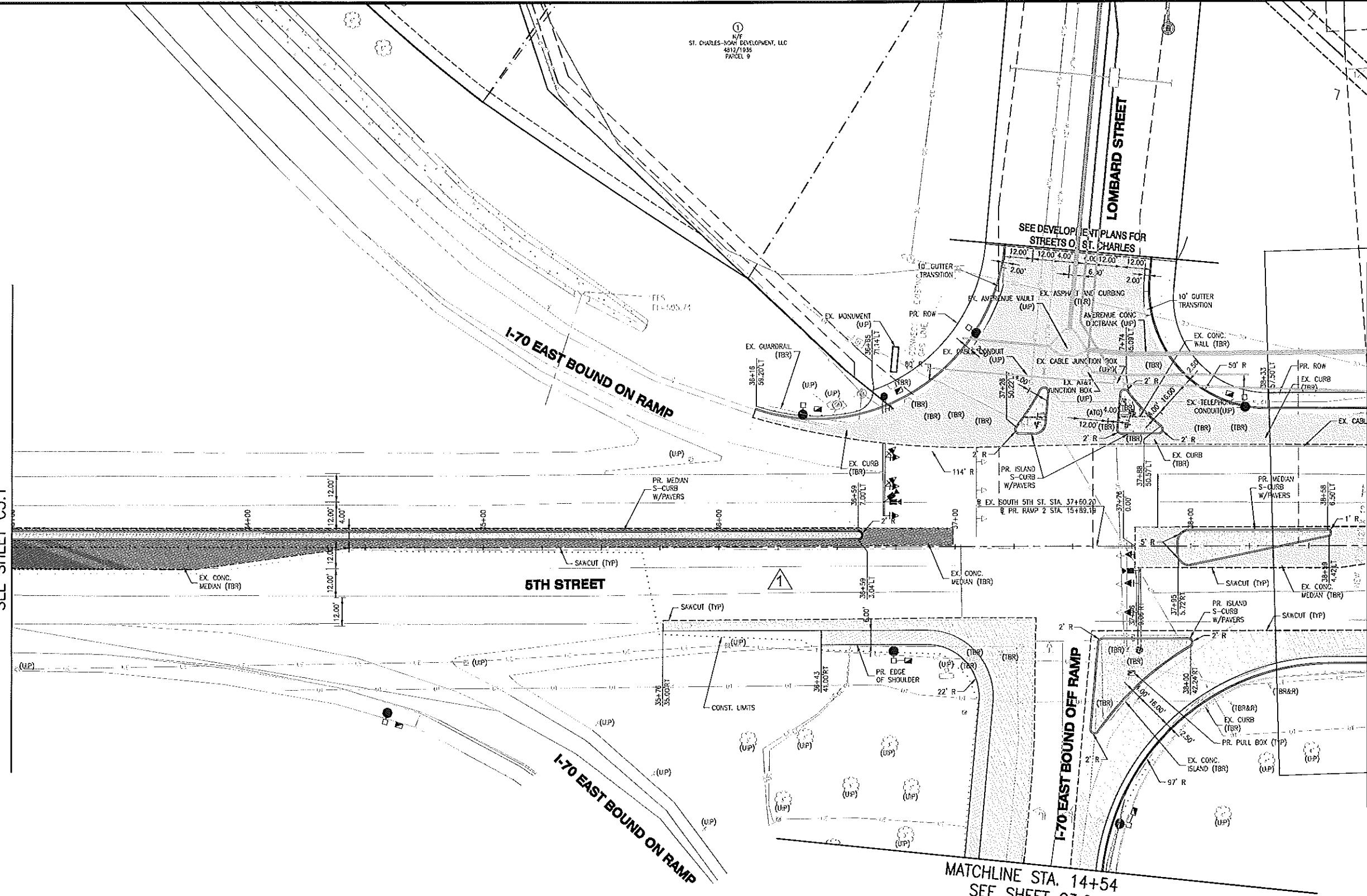
<p>DEVELOPER/OWNER CULLINAN PROPERTIES, LTD. 1200 NORTH 7TH STREET PH. (630) 757-1100 FAX (630) 757-1189</p> <p>CIVIL ENGINEER THOMAS D. BAKER PROFESSIONAL ENGINEER STATE OF ILLINOIS LICENSE NO. 021-00000001 DATE: 11/15/12</p>	<p>DATE 10/7/12</p> <p>NO. 1</p> <p>REVISION DESCRIPTION</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	NO.	DATE	DESCRIPTION			
NO.	DATE	DESCRIPTION					
<p>STREETS OF ST. CHARLES - OFFSITE ROAD IMPROVEMENTS FEDERAL PROJECT NO. CMAQ - 544 (64) 5TH STREET INTERSECTION IMPROVEMENTS 5TH STREET ST. CHARLES, MO 63303</p>							
<p>PLAN</p>							
<p>ST. CHARLES 1243 Tom Gimney Ave. OFallon, MO 63366 636.976.2508 or 636.976.2509 fax</p>							
<p>cole CIVIL ENGINEERING / SURVEYING / PLANNING / LANDSCAPE ARCHITECTURE Cole & Associates, Inc.</p>							
<p>DESIGN/DRAWN BY: M/JM</p> <p>DRAWN BY: M/JM</p> <p>CHECKED BY: TCB</p> <p>DRAWING SCALE: -</p> <p>DATE: 1/24/2012</p> <p>Job Number: 10-0006</p> <p>Sheet Number: C3.1</p>							

DATE: 10/24/2012 10:00:00 AM
 DRAWN BY: M.J.W.
 CHECKED BY: T.C.B.
 DRAWING SCALE: 1" = 20'



LEGEND FOR SHADING PATTERNS

- CONCRETE PAVEMENT
- ASPHALT PAVEMENT
- BRICK PAVERS
- SUPER PAVE



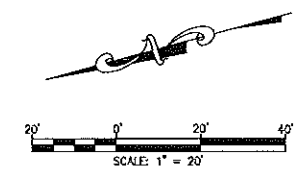
MATCHLINE STA. 33+00
SEE SHEET C3.1

MATCHLINE STA. 38+75
SEE SHEET C3.3

MATCHLINE STA. 14+54
SEE SHEET C3.6

- NOTES:**
- SEE SIGNAL AND LIGHTING PLANS FOR ALL IMPROVEMENTS AND/OR MODIFICATIONS TO EXISTING SIGNALS AND LIGHTING.
 - ALL TREES, SHRUBS, AND VEGETATION WITHIN CONSTRUCTION LIMITS ARE TO BE REMOVED. EXISTING PAVEMENT MUST BE REPLACED AT THE CONTRACTOR'S EXPENSE. CONTRACTOR SHOULD DOCUMENT THE CONDITION OF EXISTING SLABS VIA PHOTOGRAPHIC RECORD PRIOR TO SLAB REMOVAL.
 - UTILITY NOTE:
ALL UNDERGROUND UTILITIES SHOWN HAVE BEEN PLOTTED FROM AVAILABLE INFORMATION AND THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THE VERIFICATION OF ALL UTILITIES SHOWN OR NOT SHOWN SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE LOCATED PRIOR TO ANY GRADING OR CONSTRUCTION OF IMPROVEMENTS.

<p>DESIGNED BY: M.J.W. DRAWN BY: M.J.W. CHECKED BY: T.C.B. DRAWING SCALE: 1" = 20' DATE: 1/24/2012</p>	<p>Job Number 10-0006 Sheet Number C3.2</p>	<p>DESIGN/CALC BY: M.J.W. DRAWN BY: M.J.W. CHECKED BY: T.C.B. DRAWING SCALE: 1" = 20' DATE: 1/24/2012</p>	<p>DATE: 1/24/2012 JOB NO: 10-0006 SHEET NO: C3.2</p>	<p>REVISIONS</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>01/24/12</td> <td>ISSUED FOR PERMITTING</td> </tr> </tbody> </table>	NO.	DATE	DESCRIPTION	1	01/24/12	ISSUED FOR PERMITTING	<p>DEVELOPER/OFFICE: CULLINAN PROPERTIES, LTD. 500 SOUTH 5TH STREET ST. CHARLES, MO 63303 PH: (636) 757-1100 FAX: (636) 757-1109</p>	<p>CIVIL ENGINEER STATE OF MISSOURI LICENSE NO. 001185 M.J.W.</p>	<p>CIVIL ENGINEER STATE OF MISSOURI LICENSE NO. 001185 T.C.B.</p>	<p>OWNER: STREETS OF ST. CHARLES - OFFSITE ROAD IMPROVEMENTS FEDERAL PROJECT NO. CMAQ - 544 (64) 5TH STREET INTERSECTION IMPROVEMENTS 5TH STREET ST. CHARLES, MO 63303</p>
NO.	DATE	DESCRIPTION												
1	01/24/12	ISSUED FOR PERMITTING												

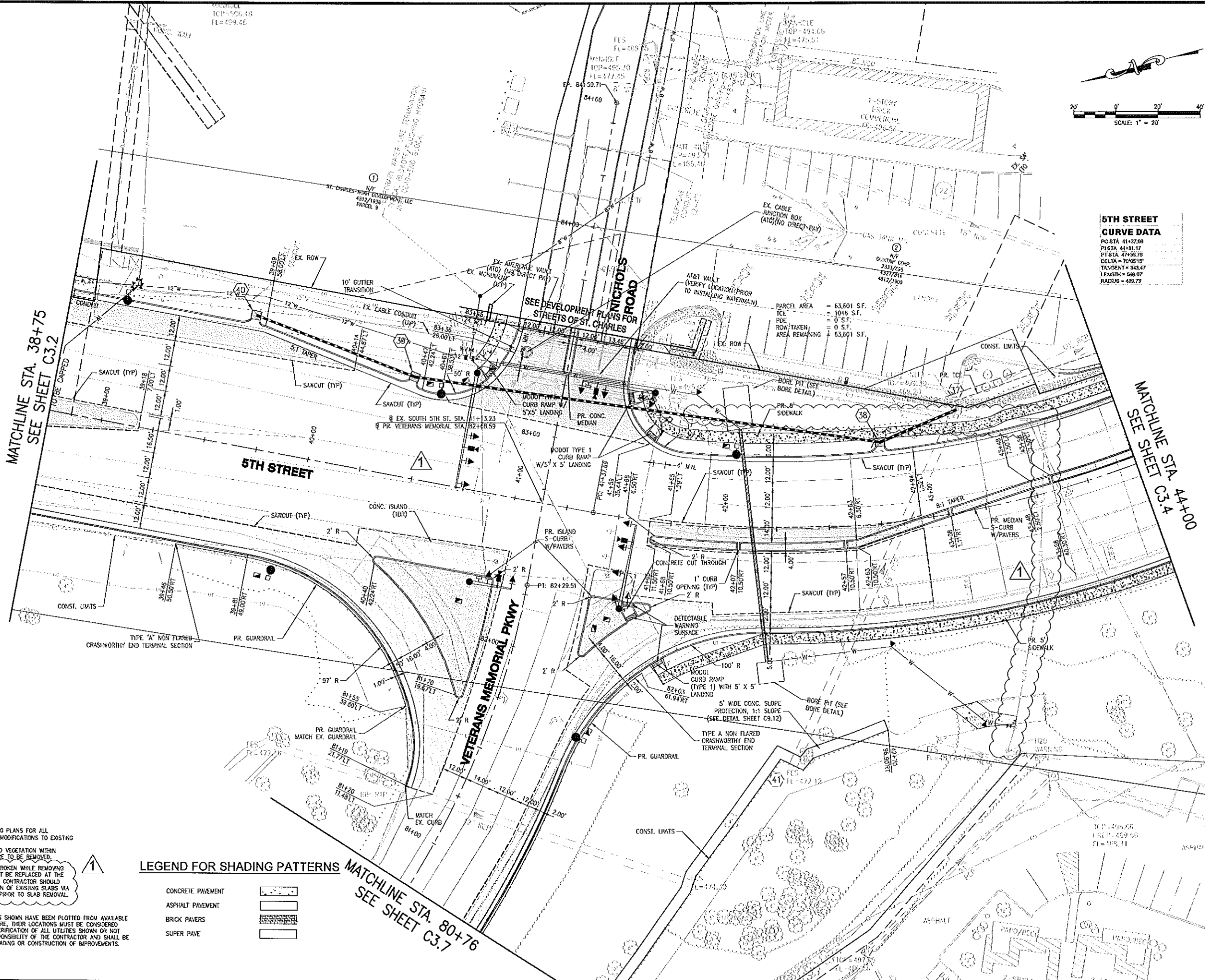


**5TH STREET
CURVE DATA**
 PO STA 41+37.69
 PI STA 44+81.17
 PT STA 47+32.76
 DELTA = 70°06'15"
 TANGENT = 343.47
 LENGTH = 599.07
 RADIUS = 489.72

PARCEL AREA = 63,601 S.F.
 ICE = 1046 S.F.
 PDE = 0 S.F.
 ROW TAKEN = 0 S.F.
 AREA REMAINING = 63,601 S.F.

MATCHLINE STA. 38+75
SEE SHEET C3.2

MATCHLINE STA. 44+00
SEE SHEET C3.4



- NOTES:**
- SEE SIGNAL AND LIGHTING PLANS FOR ALL IMPROVEMENTS AND/OR MODIFICATIONS TO EXISTING SIGNALS AND LIGHTING.
 - ALL TREES, SHRUBS, AND VEGETATION WITHIN CONSTRUCTION LIMITS ARE TO BE REMOVED.
 - ANY CONCRETE SLABS BROKEN WHILE REMOVING EXISTING PAVEMENT MUST BE REPLACED AT THE CONTRACTOR'S EXPENSE. CONTRACTOR SHOULD DOCUMENT THE CONDITION OF EXISTING SLABS VIA PHOTOGRAPHIC RECORD PRIOR TO SLAB REMOVAL.

UTILITY NOTE:
 ALL UNDERGROUND UTILITIES SHOWN HAVE BEEN PLOTTED FROM AVAILABLE INFORMATION, AND THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THE VERIFICATION OF ALL UTILITIES SHOWN OR NOT SHOWN SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE LOCATED PRIOR TO ANY GRADING OR CONSTRUCTION OF IMPROVEMENTS.

LEGEND FOR SHADING PATTERNS

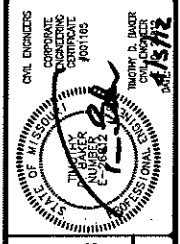
CONCRETE PAVEMENT	
ASPHALT PAVEMENT	
BRICK PAVERS	
SUPER PAVE	

MATCHLINE STA. 80+76
SEE SHEET C3.7

NO.	REVISION	DESCRIPTION	DATE
10/2/12	1	ISSUED PROPOSED STRIPING	
10/2/12	1	ADDED CURB RECONSTRUCTION	
10/2/12	1	UPDATED LOCATION OF EX. WATERMANS	

DEVELOPER/OWNER:
 CULLINAN PROPERTIES, LTD.
 1500 SOUTH 5TH ST.
 ST. CHARLES, MO 63303
 TEL: (636) 271-1100
 FAX: (636) 271-1100

DESIGNER/ENGINEER:
 CIVIL ENGINEERING
 ST. CHARLES
 FEDERAL PROJECT NO. CMAQ - 504 (84)
 5TH STREET INTERSECTION IMPROVEMENTS
 ST. CHARLES, MO. 63303



ST. CHARLES
 CIVIL ENGINEERING / SURVEYING / PLANNING / LANDSCAPE ARCHITECTURE
 Cole & Associates, Inc.
 636.978.7999

DESIGN/CALC BY: MJM
DRAWN BY: MJM
CHECKED BY: MJM
DRAWING SCALE: TCR
DATE: 1/24/2012
Job Number: 10-0006
Sheet Number: C3.3

USER: Tim Baker TAD: C3.3 PLAN
 DATE: October 4, 2012 10:55:09 AM
 DRAWING: C:\Users\Tim\Documents\10-0006\C3-Draws\C3-03.dwg, C:\Users\Tim\Documents\10-0006.dwg

LEGEND FOR SHADING PATTERNS

- CONCRETE PAVEMENT
- ASPHALT PAVEMENT
- BRICK PAVERS
- SUPER PAVE

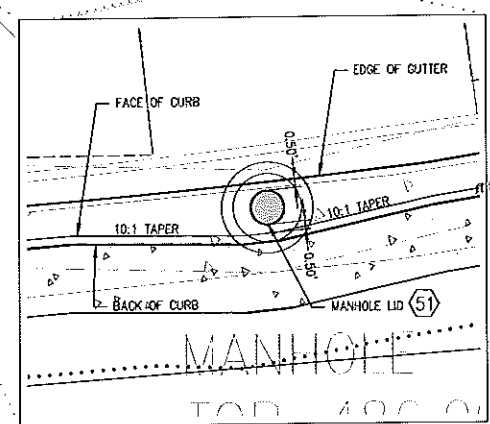
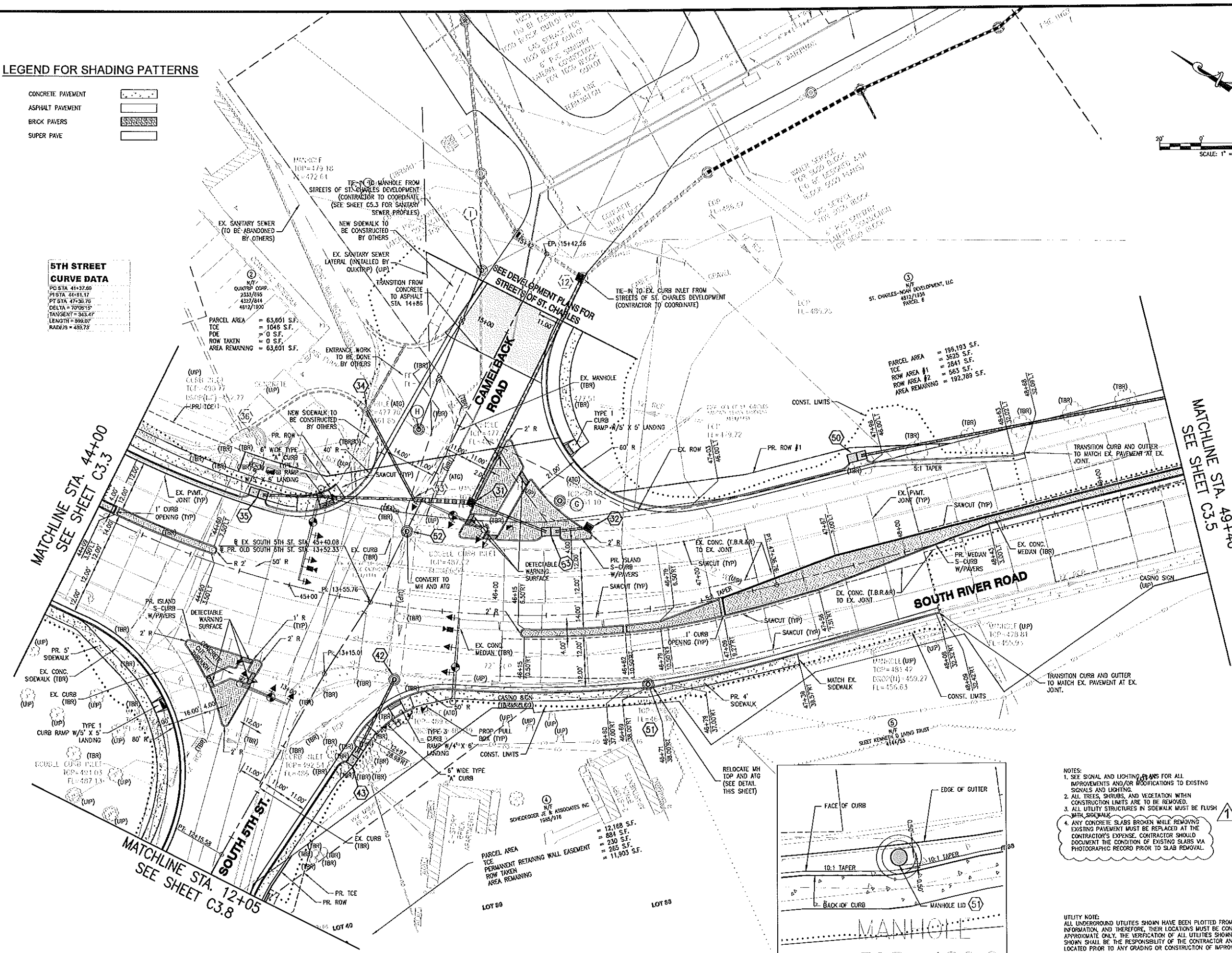
5TH STREET CURVE DATA

PC STA 41+37.69
 PT STA 41+81.17
 PI STA 47+36.76
 DELTA = 70°09'19"
 TANGENT = 343.47'
 LENGTH = 599.07'
 RADIUS = 483.73'

PARCEL AREA = 63,601 S.F.
 TCE = 1046 S.F.
 POE = 0 S.F.
 ROW TAKEN = 0 S.F.
 AREA REMAINING = 63,601 S.F.

PARCEL AREA = 195,193 S.F.
 TCE = 3625 S.F.
 ROW AREA #1 = 2841 S.F.
 ROW AREA #2 = 563 S.F.
 AREA REMAINING = 192,789 S.F.

PARCEL AREA = 12,168 S.F.
 TCE = 884 S.F.
 ROW TAKEN = 230 S.F.
 AREA REMAINING = 11,903 S.F.



- NOTES:**
1. SEE SIGNAL AND LIGHTING PLANS FOR ALL IMPROVEMENTS AND/OR MODIFICATIONS TO EXISTING SIGNALS AND LIGHTING.
 2. ALL TREES, SHRUBS, AND VEGETATION WITHIN CONSTRUCTION LIMITS ARE TO BE REMOVED.
 3. ALL UTILITY STRUCTURES IN SIDEWALK MUST BE FLUSH WITH SIDEWALK.
 4. ANY CONCRETE SLABS BROKEN WHILE REMOVING EXISTING PAVEMENT MUST BE REPLACED AT THE CONTRACTOR'S EXPENSE. CONTRACTOR SHOULD DOCUMENT THE CONDITION OF EXISTING SLABS VIA PHOTOGRAPHIC RECORD PRIOR TO SLAB REMOVAL.

UTILITY NOTE:
 ALL UNDERGROUND UTILITIES SHOWN HAVE BEEN PLOTTED FROM AVAILABLE INFORMATION AND THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THE VERIFICATION OF ALL UTILITIES SHOWN OR NOT SHOWN SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE LOCATED PRIOR TO ANY GRADING OR CONSTRUCTION OF IMPROVEMENTS.

NO.	DATE	REVISION
1	10/24/12	ISSUED FOR PERMITS
2	10/24/12	ISSUED FOR PERMITS

CULLINAN PROPERTIES, LTD.
 1500 SOUTH 5TH STREET
 ST. CHARLES, MISSOURI 63303
 PH: (636) 727-1180
 FAX: (636) 727-1188



STREETS OF ST. CHARLES
 OFFSITE ROAD IMPROVEMENTS
 FEDERAL PROJECT NO. CMAQ - 544 (04)
 5TH STREET INTERSECTION IMPROVEMENTS
 ST. CHARLES, MISSOURI 63303

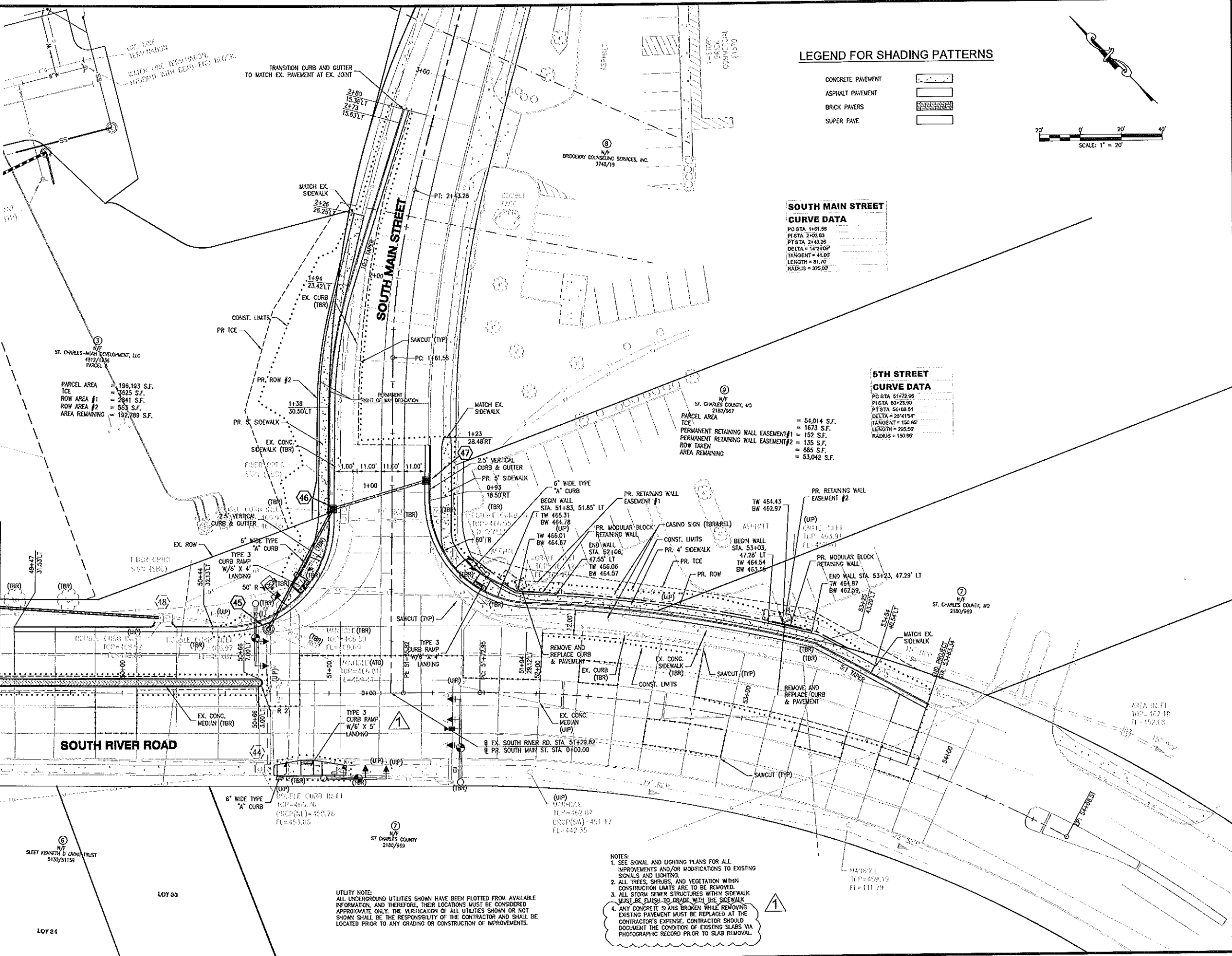
COLE
 CIVIL ENGINEERING / SURVEYING / PLANNING / LANDSCAPE ARCHITECTURE
 Cole & Associates, Inc.

DESIGN/CALC BY: MJM
 DRAWN BY: MJM
 CHECKED BY: TCB
 DRAWING SCALE:
 DATE: 1/24/2012

Job Number: 10-0006
 Sheet Number: C3.4

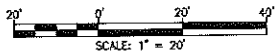
USER: Jim Bohner 10/24/12 C3.4 PLAN
 PLOT: 10/24/12 10:00 AM
 C:\WORK\10-0006\10-0006-C3.4-PLAN.dwg
 PLOT: 10/24/12 10:00 AM

MATCHLINE STA. 44+90
SEE SHEET C3.4



LEGEND FOR SHADING PATTERNS

CONCRETE PAVEMENT	[Pattern]
ASPHALT PAVEMENT	[Pattern]
BRICK PAVERS	[Pattern]
SUPER PAVE	[Pattern]



**SOUTH MAIN STREET
CURVE DATA**
 PO STA 1+61.56
 PI STA 2+02.83
 PT STA 2+43.28
 DELTA = 142°08'58"
 TANGENT = 41.09'
 LENGTH = 81.70'
 RADIUS = 325.00'

**5TH STREET
CURVE DATA**
 PO STA 51+72.95
 PI STA 53+23.50
 PT STA 54+08.51
 DELTA = 28°41'54"
 TANGENT = 150.86'
 LENGTH = 205.56'
 RADIUS = 150.99'

ST. CHARLES-NASH DEVELOPMENT, LLC
 4812/1836 PARCEL
 PARCEL AREA = 196,193 S.F.
 TCE = 3825 S.F.
 ROW AREA #1 = 2841 S.F.
 ROW AREA #2 = 583 S.F.
 AREA REMAINING = 192,769 S.F.

ST. CHARLES COUNTY, MO
 2180/567
 PARCEL AREA = 54,014 S.F.
 TCE = 1673 S.F.
 PERMANENT RETAINING WALL EASEMENT #1 = 135 S.F.
 ROW TAKEN = 885 S.F.
 AREA REMAINING = 53,042 S.F.

NOTES:
 1. SEE SIGNAL AND LIGHTING PLANS FOR ALL IMPROVEMENTS AND/OR MODIFICATIONS TO EXISTING SIGNALS AND LIGHTING.
 2. ALL TREES, SHRUBS, AND VEGETATION WITHIN CONSTRUCTION LIMITS ARE TO BE REMOVED.
 3. ALL STORM SEWER STRUCTURES WITHIN SIDEWALK MUST BE FLUSH TO GRADE WITH THE SIDEWALK.
 4. ANY CONCRETE SLABS BROKEN WHILE REMOVING EXISTING PAVEMENT MUST BE REPLACED AT THE CONTRACTOR'S EXPENSE. CONTRACTOR SHOULD DOCUMENT THE CONDITION OF EXISTING SLABS VIA PHOTOGRAPHIC RECORD PRIOR TO SLAB REMOVAL.

UTILITY NOTE:
 ALL UNDERGROUND UTILITIES SHOWN HAVE BEEN PLOTTED FROM AVAILABLE INFORMATION, AND THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THE VERIFICATION OF ALL UTILITIES SHOWN OR NOT SHOWN SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE LOCATED PRIOR TO ANY GRADING OR CONSTRUCTION OF IMPROVEMENTS.

<p>10/7/12 10/17/12</p>		<p>DATE</p>
<p>NO REVISION DESCRIPTION</p>		
<p>DESIGNER/OWNER: CULLINAN PROPERTIES, LTD. 1300 SOUTH 5TH ST. ST. CHARLES, MO 63303 TEL (636) 251-1188 FAX (636) 251-1188</p>		
<p>CONTRACTOR: CULLINAN PROPERTIES, LTD. 1300 SOUTH 5TH ST. ST. CHARLES, MO 63303 TEL (636) 251-1188 FAX (636) 251-1188</p>		
<p>THE HIGH ENGINEERING, ARCHITECTURE AND PLANNING FIRM OF MISSOURI, INC. HAS REVIEWED THIS PROJECT FOR ALL OTHER PLANS PRESENTED TO SECTION 207. ALL OTHER PLANS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES.</p>		
<p>DATE: 1/24/2012</p>		
<p>PROJECT: ST. CHARLES STREETS OF ST. CHARLES - OFFSITE ROAD IMPROVEMENTS FEDERAL PROJECT NO. CMAQ - 584 (64) 5TH STREET INTERSECTION IMPROVEMENTS</p>		
<p>PLAN</p>		
<p>ST. CHARLES COUNTY, MO 63303</p>		
<p>ST. CHARLES COUNTY, MO 2180/569</p>		
<p>AREA IN FL: 1494.462 SQ. FT. FL: 452.03</p>		
<p>DESIGN/DATE BY: MUM</p>		
<p>DRAWN BY: MUM</p>		
<p>CHECKED BY: TCB</p>		
<p>DRAWING SCALE:</p>		
<p>DATE: 1/24/2012</p>		
<p>Job Number: 10-0006</p>		
<p>Sheet Number: C3.5</p>		

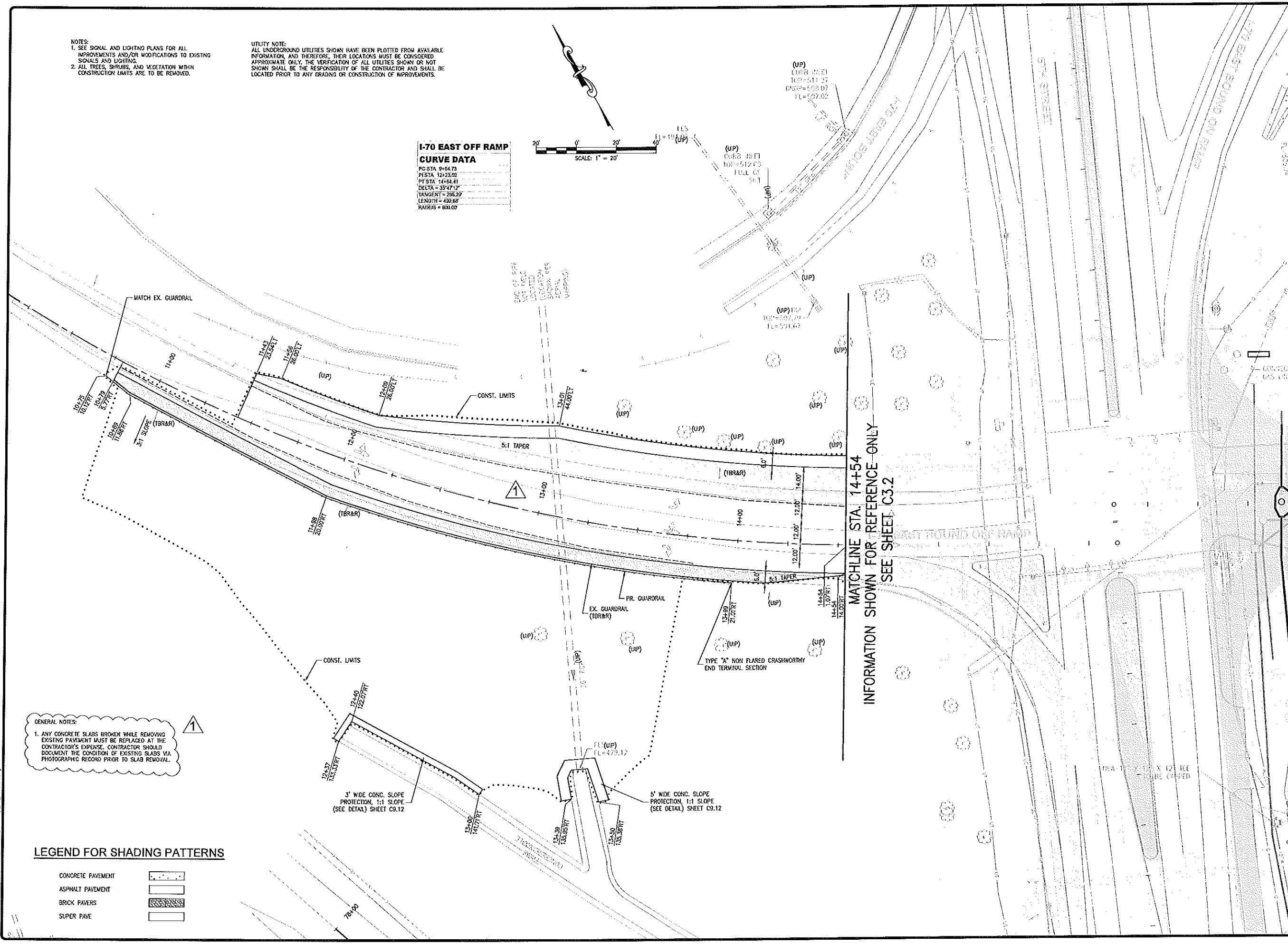
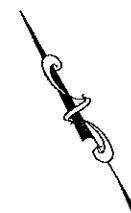
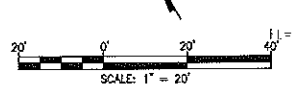
USER: Tim Bower TBC C3.5 PLAN
 DATE: October 2, 2012 8:25:17 AM
 DRAWING: ST. CHARLES STREETS OF ST. CHARLES - OFFSITE ROAD IMPROVEMENTS - C3.5 PLAN - 10-0006.dwg

NOTES:
 1. SEE SIGNAL AND LIGHTING PLANS FOR ALL IMPROVEMENTS AND/OR MODIFICATIONS TO EXISTING SIGNALS AND LIGHTING.
 2. ALL TREES, SHRUBS, AND VEGETATION WITHIN CONSTRUCTION LIMITS ARE TO BE REMOVED.

UTILITY NOTE:
 ALL UNDERGROUND UTILITIES SHOWN HAVE BEEN PLOTTED FROM AVAILABLE INFORMATION, AND THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THE VERIFICATION OF ALL UTILITIES SHOWN OR NOT SHOWN SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE LOCATED PRIOR TO ANY GRADING OR CONSTRUCTION OF IMPROVEMENTS.

I-70 EAST OFF RAMP
CURVE DATA

PC STA	9+64.73
PT STA	12+23.02
PT STA	14+64.41
DELTA	33°47'12"
TANGENT	285.27
LENGTH	429.88
RADIUS	801.07



GENERAL NOTES:

1. ANY CONCRETE SLABS BROKEN WHILE REMOVING EXISTING PAVEMENT MUST BE REPLACED AT THE CONTRACTOR'S EXPENSE. CONTRACTOR SHOULD DOCUMENT THE CONDITION OF EXISTING SLABS VIA PHOTOGRAPHIC RECORD PRIOR TO SLAB REMOVAL.

LEGEND FOR SHADING PATTERNS

CONCRETE PAVEMENT	
ASPHALT PAVEMENT	
BRICK PAVERS	
SUPER PAVE	

USER: Tim Boller 7/18/11 C:\G_Plan
 DATE: October 2, 2012 10:50:39 AM
 DRAWING: ST. CHARLES OFF-RAMP (C3.6) - 10-0006

MATCHLINE STA. 14+54
INFORMATION SHOWN FOR REFERENCE ONLY
SEE SHEET C3.2

<p>DESIGNER/OWNER: CULLINAN PROPERTIES, LTD. 100 SOUTH 5th ST. ST. CHARLES, MO 63303 TEL: (636) 297-1150 FAX: (636) 297-1158</p>	<p>CIVIL ENGINEER: THOMAS D. BUCK LICENSE NO. 10118 STATE OF MISSOURI</p>	<p>REVISIONS:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>10/13/2011</td> <td>REVISED DAWGOUT CORRECTIONS</td> </tr> <tr> <td>2</td> <td>10/17/11</td> <td>REVISED DAWGOUT CORRECTIONS</td> </tr> </tbody> </table>	NO.	DATE	DESCRIPTION	1	10/13/2011	REVISED DAWGOUT CORRECTIONS	2	10/17/11	REVISED DAWGOUT CORRECTIONS
NO.	DATE	DESCRIPTION									
1	10/13/2011	REVISED DAWGOUT CORRECTIONS									
2	10/17/11	REVISED DAWGOUT CORRECTIONS									
<p>STREETS OF ST. CHARLES - OPPOSITE ROAD IMPROVEMENTS FEDERAL PROJECT NO. CMAQ - 544 (64) 5TH STREET INTERSECTION IMPROVEMENTS FIFTH STREET ST. CHARLES, MO 63303</p>											
<p>PLAN</p>											
<p>ST. CHARLES 1243 Tom Ginner Ave. O'Fallon, MO 63366 636.979.2508 #1 636.979.2509 fax</p>											
<p>cole CIVIL ENGINEERING / SURVEYING / PLANNING / LANDSCAPE ARCHITECTURE Cole & Associates, Inc.</p>											
<p>DESIGN/CALC BY: MUM DRAWN BY: MUM CHECKED BY: TCB DRAWING SCALE: - DATE: 10-13-2011 Job Number: 10-0006 Sheet Number: C3.6</p>											

3' WIDE CONC. SLOPE PROTECTION, 1:1 SLOPE (SEE DETAIL) SHEET C9.12

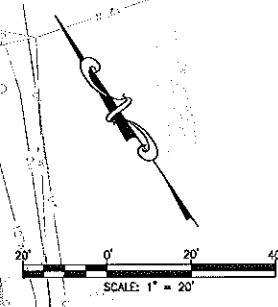
5' WIDE CONC. SLOPE PROTECTION, 1:1 SLOPE (SEE DETAIL) SHEET C9.12

VETERANS MEMORIAL CURVE DATA

PC STA	79+08.30
PI STA	80+78.13
PT STA	82+28.51
DELTA	45°00'33"
TANGENT	169.83
LENGTH	321.20
RADIUS	400.00

NOTES:
 1. SEE SIGNAL AND LIGHTING PLANS FOR ALL IMPROVEMENTS AND/OR MODIFICATIONS TO EXISTING SIGNALS AND LIGHTING.
 2. ALL TREES, SHRUBS, AND VEGETATION WITHIN CONSTRUCTION LIMITS ARE TO BE REMOVED.

UTILITY NOTE:
 ALL UNDERGROUND UTILITIES SHOWN HAVE BEEN PLOTTED FROM AVAILABLE INFORMATION, AND THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THE VERIFICATION OF ALL UTILITIES SHOWN OR NOT SHOWN SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE LOCATED PRIOR TO ANY GRADING OR CONSTRUCTION OF IMPROVEMENTS.



MATCHLINE STA. 80+76 INFORMATION SHOWN FOR REFERENCE ONLY SEE SHEET C3.3

NOTE:
 ANY CONCRETE SLABS BROKEN WHILE REMOVING EXISTING PAVEMENT MUST BE REPLACED AT THE CONTRACTOR'S EXPENSE. CONTRACTOR SHOULD DOCUMENT THE CONDITION OF EXISTING SLABS VIA PHOTOGRAPHIC RECORD PRIOR TO SLAB REMOVAL.

LEGEND FOR SHADING PATTERNS

CONCRETE PAVEMENT	
ASPHALT PAVEMENT	
BRICK PAVERS	
SUPER PAVE	

REVISION	DATE	DESCRIPTION

DEVELOPER/OWNER:
 CULLINAN PROPERTIES, LTD.
 1200 SOUTH 17TH STREET
 FRI, LA 70119
 PH: (504) 797-1100
 FAX: (504) 797-1188

CIVIL ENGINEER:
 STATE LICENSE NO. 1550
 JAMES R. HANCOCK
 CIVIL ENGINEER
 4/15/12

STREETS OF ST. CHARLES
 - OFFSITE ROAD IMPROVEMENTS
 FEDERAL PROJECT NO. CMAQ - 544 (64)
 5TH STREET INTERSECTION IMPROVEMENTS
 FIFTH STREET
 ST. CHARLES, MO 63303

PLAN

ST. CHARLES
 1240 Tom Ginner Ave.
 O'Fallon, MO 63366
 636.978.7208 ext
 636.978.7209 fax

COLE
 CIVIL ENGINEERING / SURVEYING / PLANNING / LANDSCAPE ARCHITECTURE
 Cole & Associates, Inc.

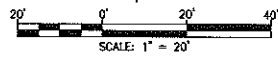
DESIGN/CAD BY: MJM
 DRAWN BY: MJM
 CHECKED BY: TCB
 DRAWING SCALE:

DATE: 10-13/2011
 Job Number: 10-0006
 Sheet Number: C3.7

USER: Jim Blair DATE: C3.7 PLAN DATE: 10/13/2011 08:16:13 AM DRAWING: ST. CHARLES OFFSITE ROAD IMPROVEMENTS - CMAQ - 544 - 64 - 5TH STREET INTERSECTION IMPROVEMENTS

UTILITY NOTE:
ALL UNDERGROUND UTILITIES SHOWN HAVE BEEN PLOTTED FROM AVAILABLE INFORMATION AND THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THE VERIFICATION OF ALL UTILITIES SHOWN OR NOT SHOWN SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE LOCATED PRIOR TO ANY GRADING OR CONSTRUCTION OF IMPROVEMENTS.

- NOTES:
1. SEE SIGNAL AND LIGHTING PLANS FOR ALL IMPROVEMENTS AND/OR MODIFICATIONS TO EXISTING SIGNALS AND LIGHTING.
 2. ALL TREES, SHRUBS, AND VEGETATION WITHIN CONSTRUCTION LIMITS ARE TO BE REMOVED.
 3. ANY CONCRETE SLABS BROKEN WHILE REMOVING EXISTING PAVEMENT MUST BE REPLACED AT THE CONTRACTOR'S EXPENSE. CONTRACTOR SHOULD DOCUMENT THE CONDITION OF EXISTING SLABS VIA PHOTOGRAPHIC RECORD PRIOR TO SLAB REMOVAL.

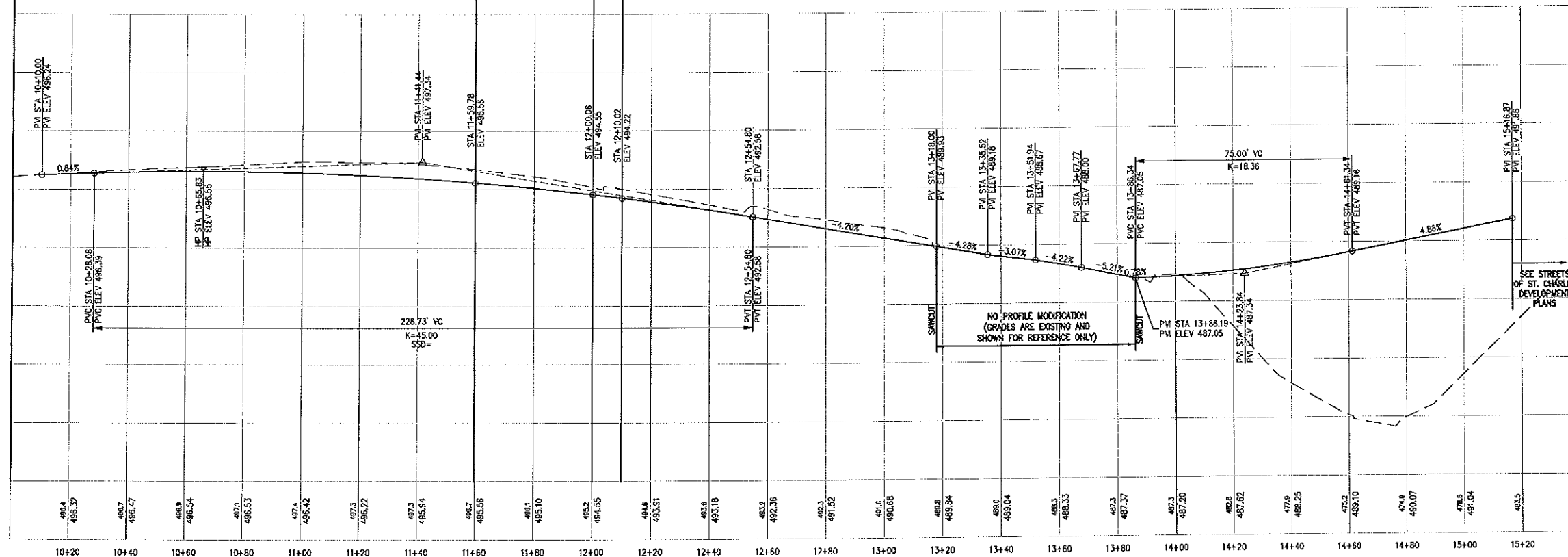
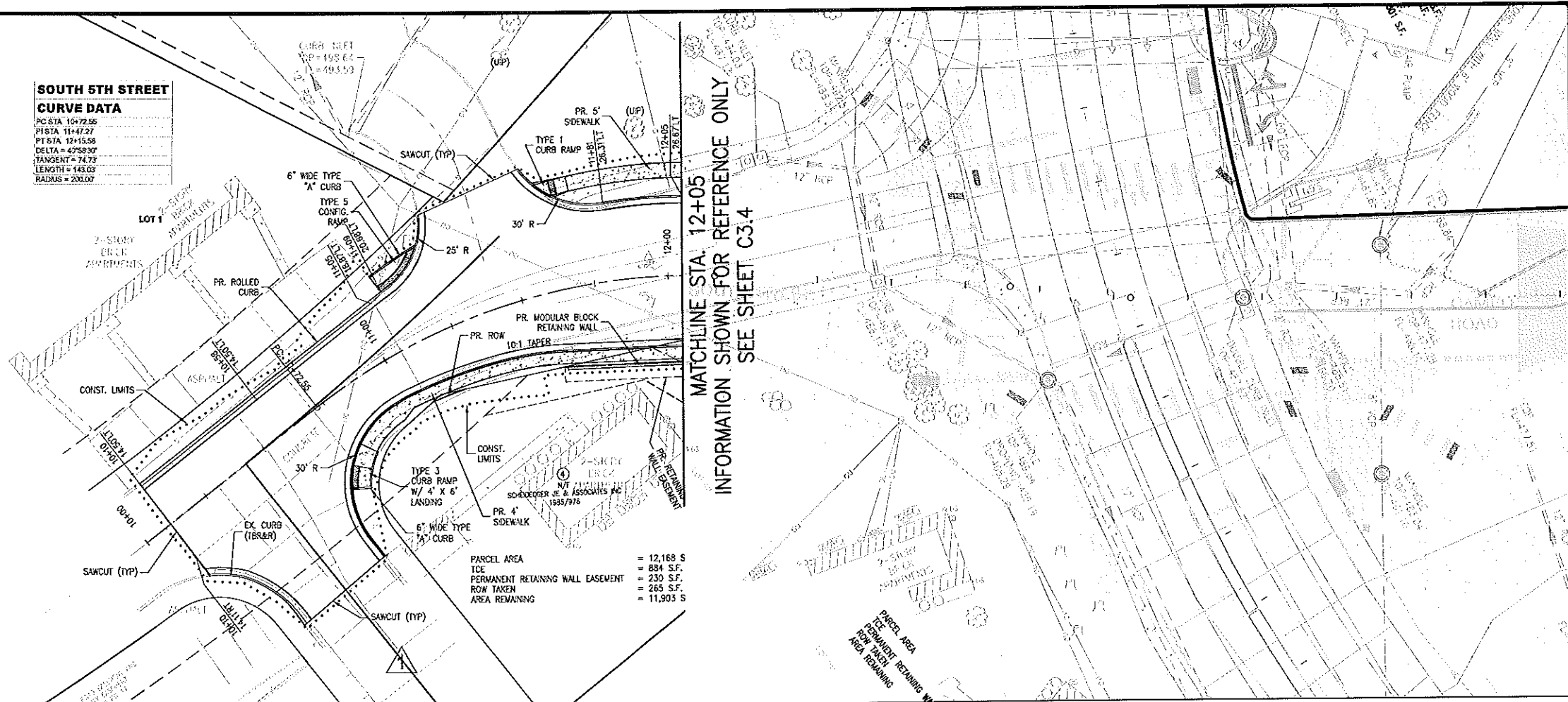


LEGEND FOR SHADING PATTERNS

- CONCRETE PAVEMENT
- ASPHALT PAVEMENT
- BRICK PAVERS
- SUPER PAVE

**SOUTH 5TH STREET
CURVE DATA**

PC STA 10+72.56
PT STA 11+47.27
PI STA 12+15.58
DELTA = 47°58'30"
TANGENT = 74.73
LENGTH = 443.83
RADIUS = 203.07



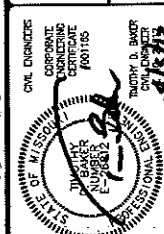
USER: Tim Baker TAB_C3.8_TWP
DATE: October 2, 2019 - 6:55:30 AM
DRAWING: S:\035\035001\13-0000\C3.8-0010_P1.dwg

NO.	DATE	REVISION	DESCRIPTION
1	10/17/19	REVISED	REVISED STRIPING
2	10/17/19	REVISED	REVISED STRIPING

DEVELOPER/OWNER:
CULLINAN PROPERTIES, LTD.
1300 SOUTH 5TH ST.
ST. CHARLES, MD 21053
TEL: (410) 326-1100
FAX: (410) 326-1100

DESIGNER:
CIVIL ENGINEER
CORPORATE
CERTIFICATE
#001155

DATE: 10/17/19



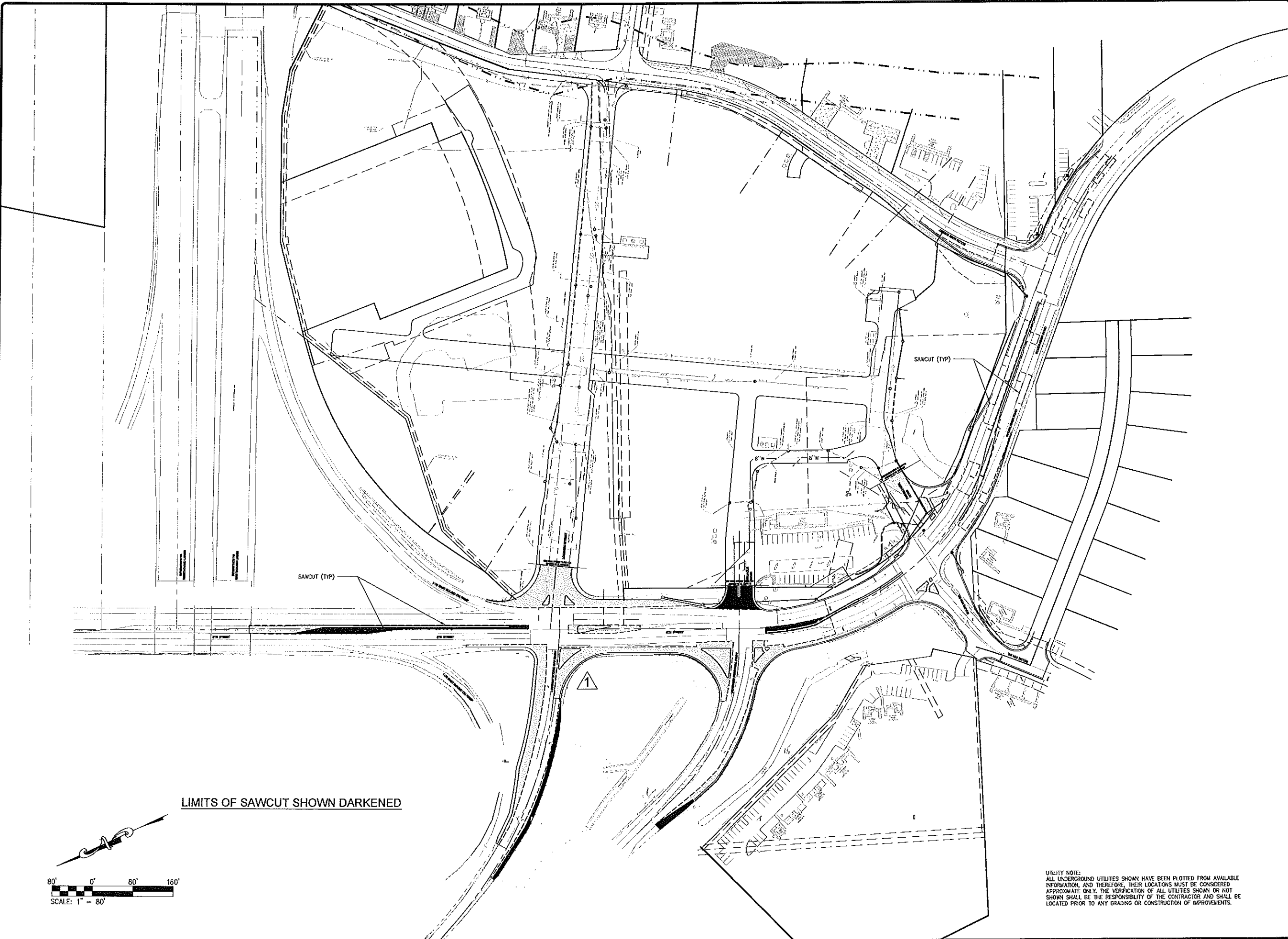
STREETS OF ST. CHARLES
- OPPOSITE ROAD IMPROVEMENTS
FEDERAL PROJECT NO. CMAQ - 544 (84)
5TH STREET INTERSECTION IMPROVEMENTS
FIFTH STREET
ST. CHARLES, MD 21053

PLAN & PROFILE

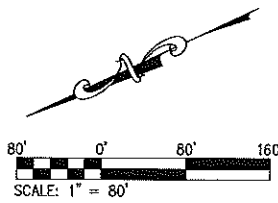
cole
CIVIL ENGINEERING / SURVEYING / PLANNING / LANDSCAPE ARCHITECTURE
1243 Tom Ginner Ave.
Oriskany, MD 21766
301.792.7298 or
301.792.7299 fax
C&A Associates, Inc.

DESIGN/CALC BY: MJM
DRAWN BY: MJM
CHECKED BY: TCB
DRAWING SCALE: -
DATE: 10-13-2011
Job Number: 10-0006
Sheet Number: C3.8

USER: Tim Blevins, INC. C3.9 SAWCUT LIMIT PLAN
 DATE: October 4, 2012 10:07:57 AM
 DRAWING: ST. CHARLES\2012\10-04-2012\10-04-2012\10-04-2012.PLT

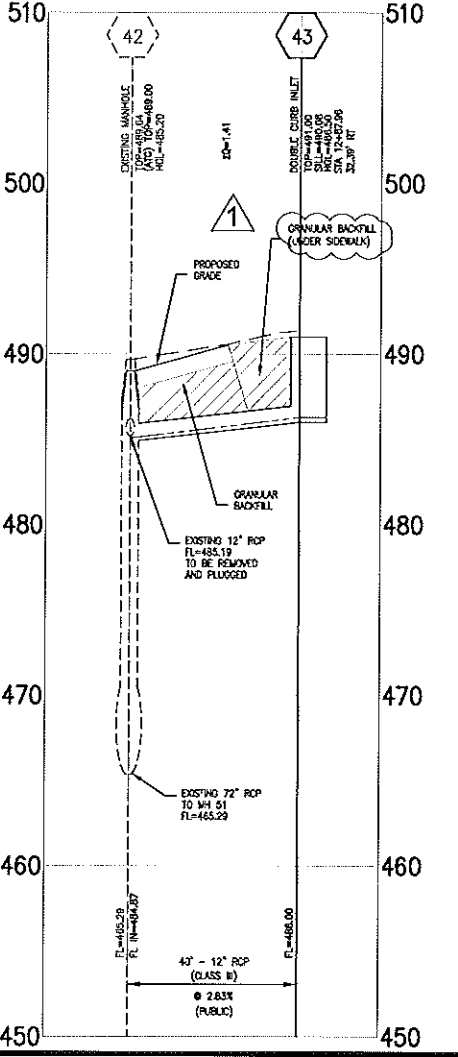
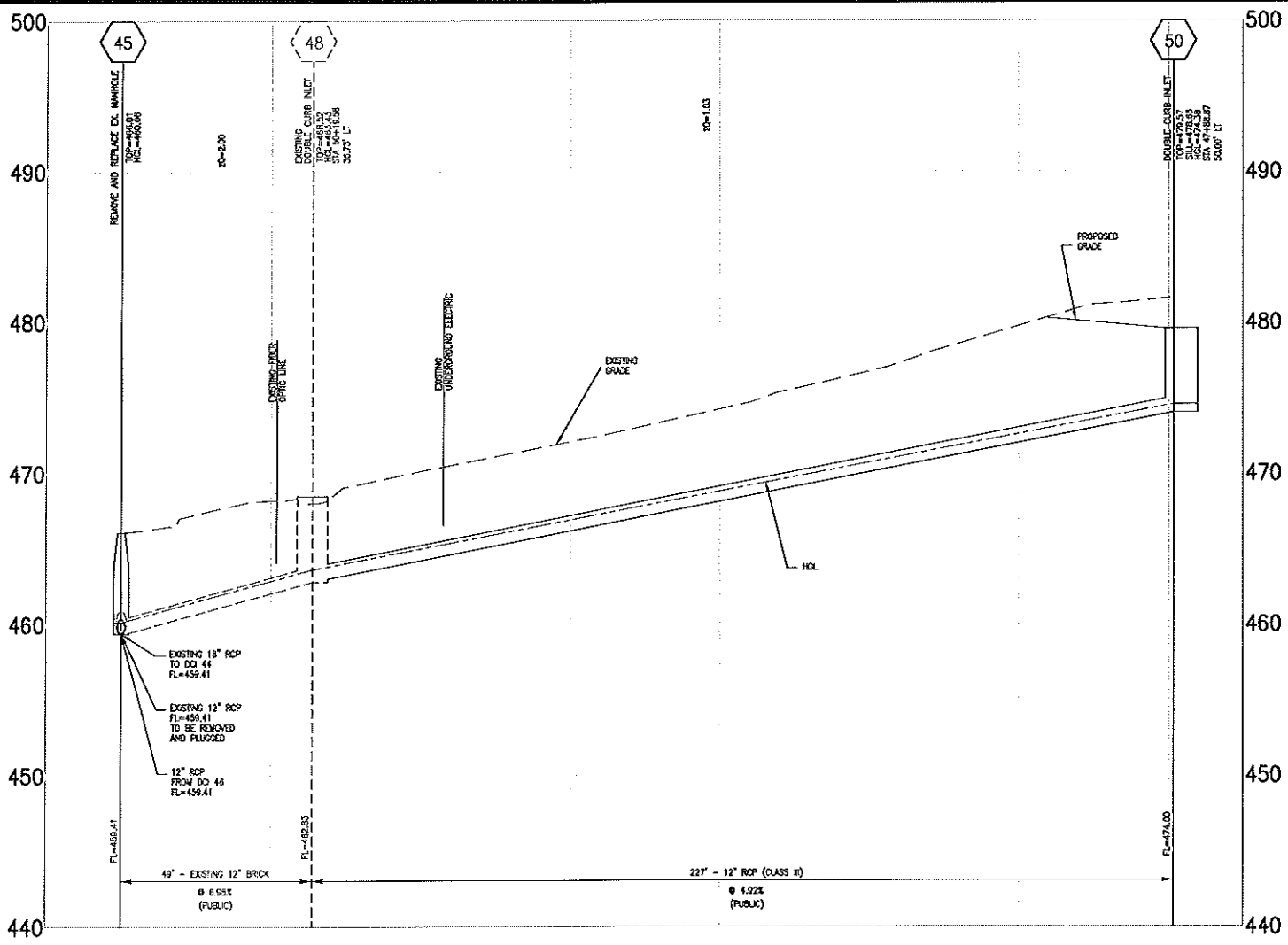
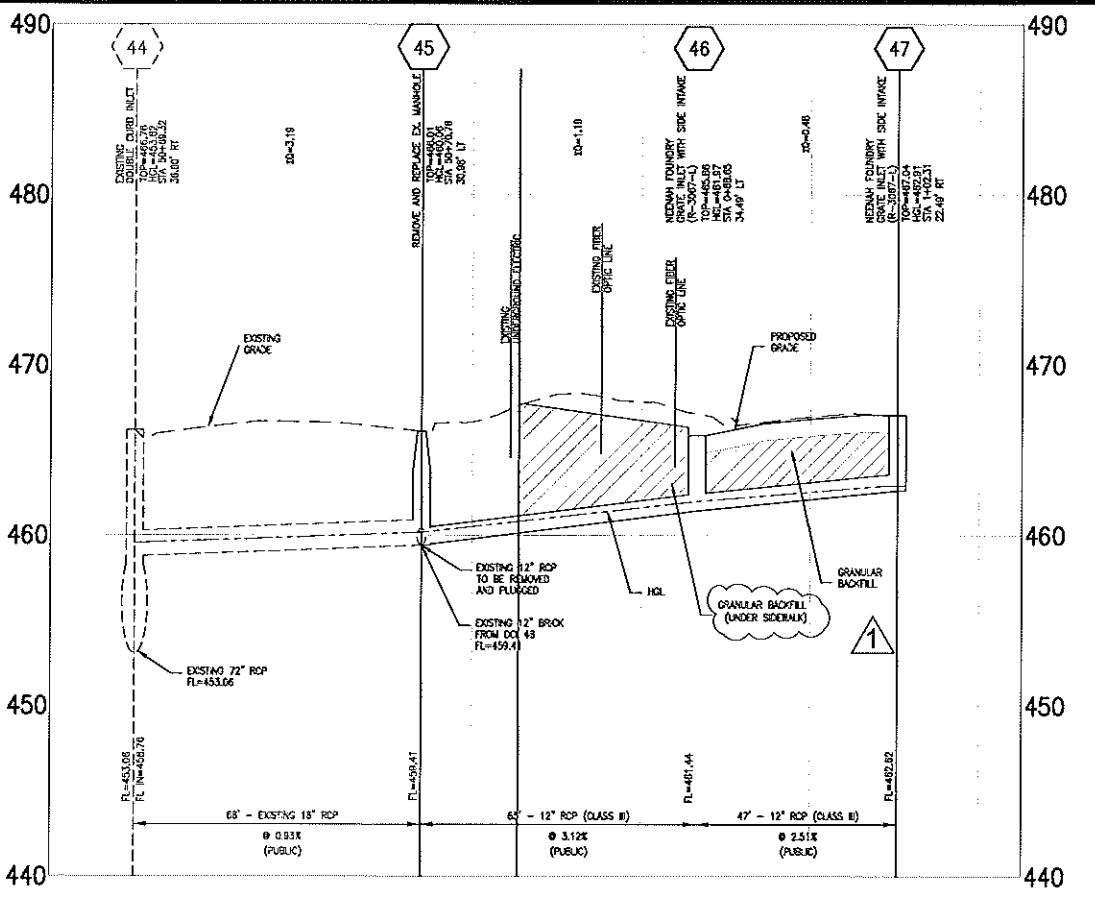


LIMITS OF SAWCUT SHOWN DARKENED



UTILITY NOTE:
 ALL UNDERGROUND UTILITIES SHOWN HAVE BEEN PLOTTED FROM AVAILABLE INFORMATION, AND THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THE VERIFICATION OF ALL UTILITIES SHOWN OR NOT SHOWN SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE LOCATED PRIOR TO ANY GRADING OR CONSTRUCTION OF IMPROVEMENTS.

<p>DEVELOPER/OWNER: CULLINAN PROPERTIES, LTD. 1500 SOUTH 5TH ST. ST. CHARLES, MD 20688 TEL: (410) 326-1100 FAX: (410) 326-1100</p>		<p>DATE: _____ NO: _____ REVISION DESCRIPTION: _____</p>	
<p>CIVIL ENGINEER: HENRY D. BAKER PROFESSIONAL ENGINEERING #01165</p>		<p>CIVIL ENGINEER: HENRY D. BAKER PROFESSIONAL ENGINEERING #01165</p>	
<p>STREETS OF ST. CHARLES - OFFSITE ROAD IMPROVEMENTS FEDERAL PROJECT NO. CMAQ - 544 (69) 5TH STREET INTERSECTION IMPROVEMENTS FIFTH STREET ST. CHARLES, MD 20688</p>			
<p>DESIGN/CALC BY: M/JM</p>		<p>DATE: 1/24/2012</p>	
<p>DRAWN BY: M/JM</p>		<p>Job Number: 10-0006</p>	
<p>CHECKED BY: TCB</p>		<p>Sheet Number: C3.9</p>	
<p>DRAWING SCALE: -</p>			
<p>COLE CIVIL ENGINEERING / SURVEYING / PLANNING / LANDSCAPE ARCHITECTURE Cole & Associates, Inc.</p>			



3 STORM SEWER PROFILES
SCALE: HOR. 1"=20' VERT. 1"=5'
REF. DWG. C3.6

2 STORM SEWER PROFILES
SCALE: HOR. 1"=20' VERT. 1"=5'
REF. DWG. C3.4

ALL UNDERGROUND UTILITIES SHOWN HAVE BEEN PLOTTED FROM AVAILABLE INFORMATION, AND THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THE VERIFICATION OF ALL UTILITIES SHOWN OR NOT SHOWN SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE LOCATED PRIOR TO ANY GRADING OR CONSTRUCTION OF IMPROVEMENTS.

Coaklet FlexTable Hydraulic Calculations (strmcad_10-0006.stc)
Current Time: 0.000 min

Label	Manhole (ft)	Length (ft)	Invert (ft)	Flow (cfs)	Velocity (ft/s)	Hydraulic Grade (ft)	Headloss (ft)	Flow (cfs)	Velocity (ft/s)	Hydraulic Grade (ft)	Headloss (ft)
45-46	45	227	423.1	3.36	13.19	423.08	0.02	3.36	13.19	423.06	0.02
46-47	46	47	423.1	4.5	15.8	423.05	0.03	4.5	15.8	423.02	0.03
47-48	47	63	423.1	28.5	1.73	423.08	0.18	28.5	1.73	422.90	0.18
48-49	48	49	423.1	4.5	15.8	423.05	0.03	4.5	15.8	423.02	0.03
49-50	49	127	423.1	6.5	11.2	423.08	0.06	6.5	11.2	422.98	0.10
50-51	50	47	423.1	4.5	15.8	423.05	0.03	4.5	15.8	423.02	0.03

Catch Basin FlexTable Hydraulic Calculations (strmcad_10-0006.stc)
Current Time: 0.000 min

Label	Elevation (ft)	Elevation (ft)	Elevation (ft)	Flow (cfs)	Velocity (ft/s)	Velocity (ft/s)	Hydraulic Grade (ft)	Hydraulic Grade (ft)	Inflow (cfs)	Flow (cfs)	Outlet Efficiency (%)	Water Level (ft)	Headloss (ft)	Outlet (ft)	Notes	
45	426.05	426.57	424.20	1.83	3.32	3.32	424.43	424.43	1.83	0.00	100	0.00	0	4.22		
46	427.04	428.52	423.23	2.00	1.93	4.01	423.47	423.43	0.57	0.00	100	0.54	0	4.17		
47	427.24	427.24	423.02	0.78	2.38	2.38	423.51	423.51	0.48	0.00	100	0.50	0	4.13		
48	426.86	426.86	421.44	1.17	1.13	3.37	421.57	421.80	0.71	0.05	92.2	0.27	4.8	3.86		
49	425.84	426.76	423.06	4.46	11.50	3.46	423.44	423.61	1.27	0.00	100	0.23	0	12.23		
50	425.12	426.12	422.12	155.68	13.18	13.18	425.12	426.12	195.68	0.00	100	0.00	0	0.00		
51	425.82	426.74	423.82	0.42	2.48	2.48	423.29	423.29	0.42	0.00	100	0.39	0	3.73		
52	425.45	425.45	423.45	0.75	1.17	3.14	423.29	423.29	0.32	0.00	100	0.23	0	3.59		
53	423.47	424.33	423.47	1.48	1.09	3.53	423.26	423.26	0.53	0.00	100	0.35	0	3.48		
54	422.58	423.50	423.47	13.18	13.73	423.26	423.26	423.26	0.26	0.00	100	0.51	0	19.47		
55	421.40	421.40	423.51	158.19	9.68	9.68	423.23	423.27	0.77	0.00	100	0.26	0	18.43		
56	423.51	423.51	423.51	2.46	4.40	4.40	423.50	423.50	1.40	0.00	100	31	0.26	0	3.41	
57	423.10	423.10	423.10	1.80	3.94	3.94	423.10	423.10	1.28	0.00	100	31	0.20	0	4.42	
58	424.62	424.62	423.79	0.53	0.58	6.00	423.73	423.23	6.53	0.00	100	0.00	0	4.39		
59	424.52	424.52	423.30	3.15	6.65	4.65	423.22	423.22	2.65	0.00	100	30	0.00	0	4.40	
60	423.20	423.20	423.20	20.87	2.09	2.09	423.23	423.23	0.41	0.11	86	32	0.28	0	15.87	
61	428.25	428.25	427.75	24.55	4.05	8.41	428.11	428.11	0.48	0.00	100	33	0.41	0	7.82	
62	425.08	425.08	426.00	1.41	3.57	3.57	426.30	426.30	1.41	0.00	100	50	0.20	0	3.98	

ATTENTION SEWER CONTRACTOR

FOR SEWER PIPE (STORM, SANITARY, & COMBINED) WITH A DESIGN GRADE LESS THAN ONE PERCENT (1%), VERIFICATION OF THE PIPE GRADE WILL BE REQUIRED FOR EACH INSTALLED REACH OF SEWER, FROM TO ANY SURFACE RESTRICTION OR REGULATION OF ANY SURFACE IMPROVEMENTS. THE CONTRACTOR'S FIELD SUPERVISOR WILL BE REQUIRED TO PROVIDE DAILY DOCUMENTATION VERIFYING THAT THE AS-BUILT PIPE GRADE MEETS THE DESIGN THROUGH THE SUBMITTAL OF SIGNED OUT SHEETS TO THE CITY INSPECTOR UPON REQUEST.

FIELD SURVEYED VERIFICATION MUST BE MADE UNDER THE DIRECTION OF THE LICENSED LAND SURVEYOR OR REGISTERED ENGINEER. THE CONTRACTOR WILL BE REQUIRED TO REMOVE & REPLACE ANY SEWER REACH HAVING AN AS-BUILT GRADE WHICH IS FLATTER THAN THE DESIGN GRADE BY MORE THAN 0.1% WITH SEWERS WITH GRADES GREATER THAN THE DESIGN GRADE MAY BE LEFT IN PLACE PROVIDED NO OTHER SEWER GRADE IS REDUCED BY THIS WORK IN THE AS-BUILT GRADE.

THE CITY ALSO RESERVES THE RIGHT TO REQUIRE THE CONTRACTOR TO REMOVE & REPLACE ANY SEWER (OR ANY THE PIPES TO CONSTRUCTION APPROVAL) FOR WHICH THE AS-BUILT GRADE DOES NOT COMPLY WITH THE GRADE TOLERANCE STATED IN THE ABOVE PARAGRAPH.

THE SEWER CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COST ASSOCIATED WITH THE FIELD VERIFICATION OF THE SEWER GRADE, OR REMOVAL & REPLACEMENT OF THE SEWER PIPE & ASSOCIATED APPURTENANCES.

1 HYDRAULIC CALCULATIONS
SCALE: N/A
REF. DWG. C6.1

Manhole FlexTable Hydraulic Calculations (strmcad_10-0006.stc)
Current Time: 0.000 min

Label	Elevation (ft)	Elevation (ft)	Elevation (ft)	Flow (cfs)	Velocity (ft/s)	Velocity (ft/s)	Hydraulic Grade (ft)	Hydraulic Grade (ft)	Diameter (in)	Headloss (ft)	Freboard (ft)
45	426.01	426.01	424.41	3.19	3.38	4.70	423.09	423.09	48.00	0.30	3.52
46	427.45	427.45	426.70	157.33	8.57	10.32	423.10	423.10	48.00	0.56	16.91
47	427.11	427.11	426.52	157.33	11.80	10.32	423.36	423.36	36.00	0.80	16.75
48	426.02	426.02	425.29	136.51	7.12	10.25	423.61	423.61	48.00	0.77	15.96

10/17/12

DEVELOPER/OWNER
CULLINAN PROPERTIES, LTD.
1530 SOUTH CHASE
ST. CHARLES, MO 63033
PH (636) 757-1150
FAX (636) 757-1158

CIVIL ENGINEER
CORPORATE
REGISTERED
PROFESSIONAL
ENGINEER
NO. 00118

ST. CHARLES
- OFFSITE ROAD IMPROVEMENTS
FEDERAL PROJECT NO. CMAQ - 544 (64)
5TH STREET INTERSECTION IMPROVEMENTS
FIFTH STREET
ST. CHARLES, MO 63033

STORM PROFILES

1243 Tom Greiner, P.E.
07/01/08, 08/03/08
636.778.7508 fax
636.778.7509 for

COLE
CIVIL ENGINEERING / SURVEYING / PLANNING / LANDSCAPE ARCHITECTURE
Cole & Associates, Inc.

DESIGN/CALC BY
MJM

DRAWN BY
MJM

CHECKED BY
TCB

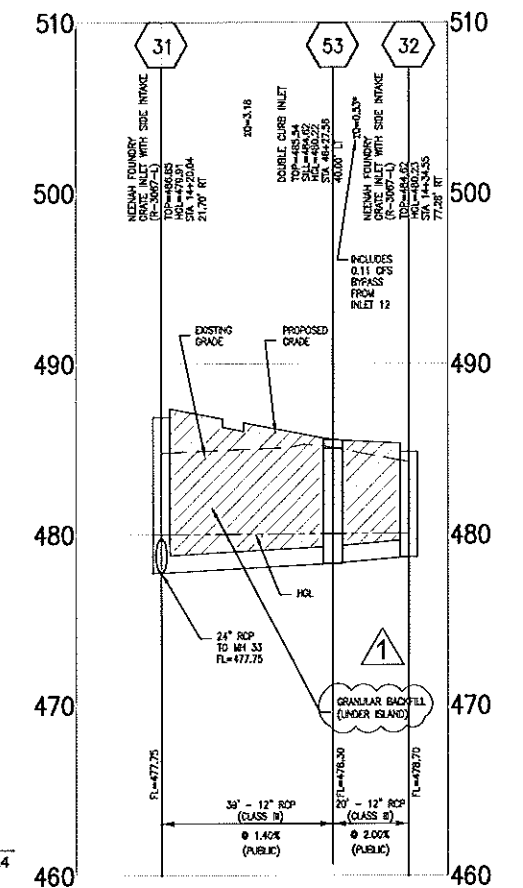
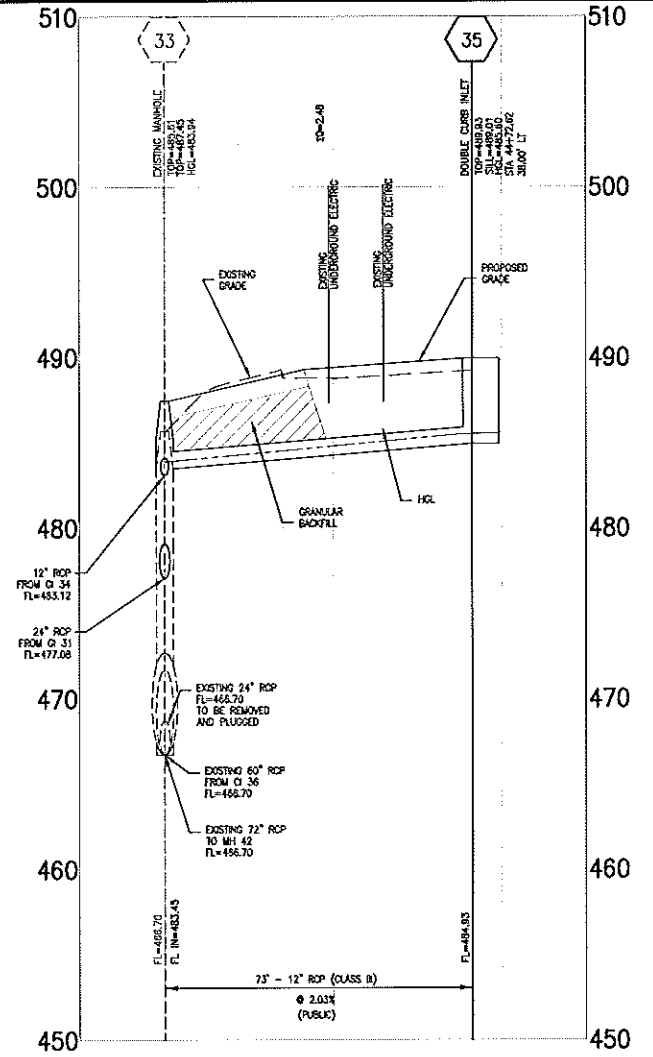
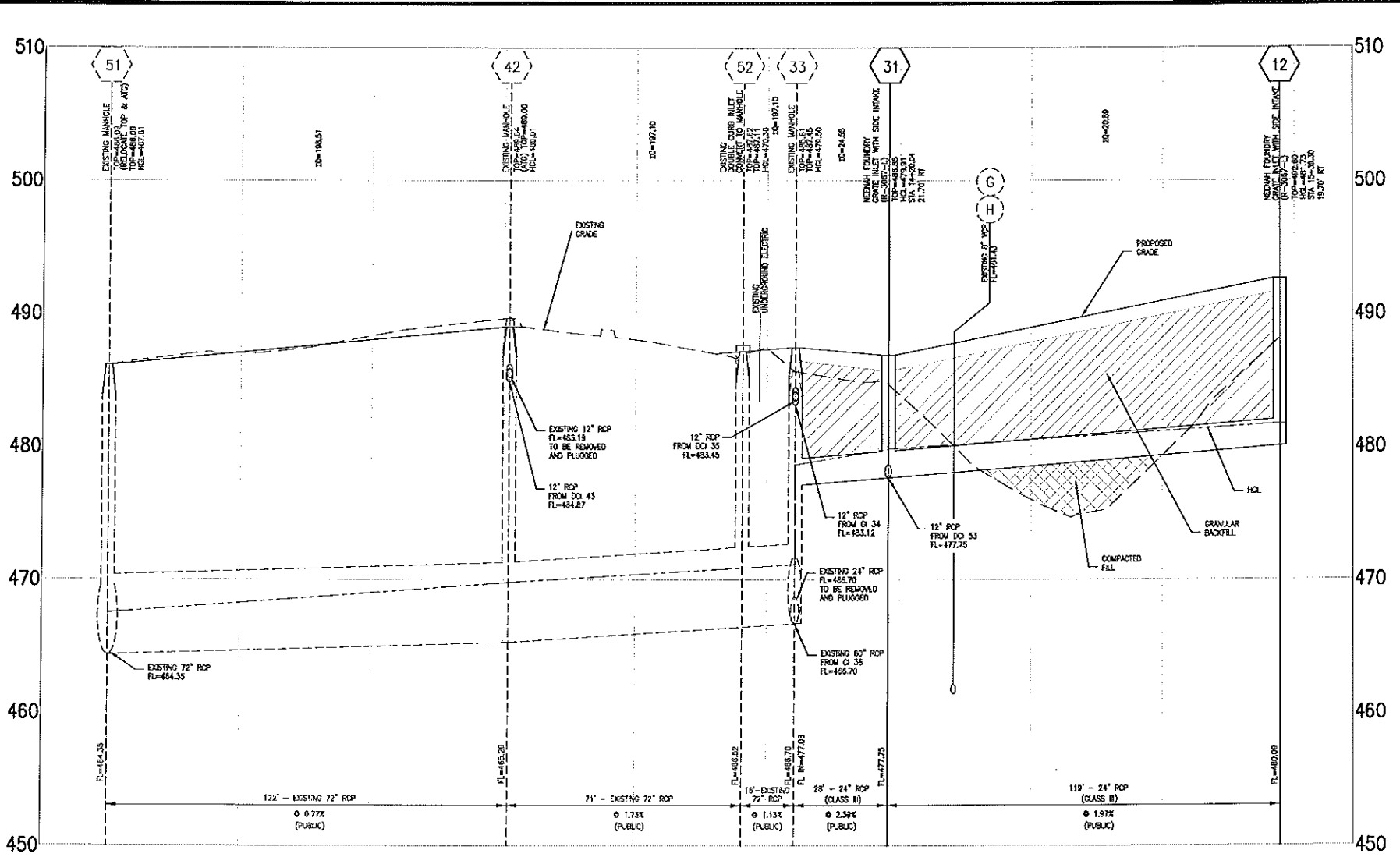
DRAWING SCALE

DATE
10-13/2011

Job Number
10-0006

Sheet Number
C5.1

USER: Tom Greiner, P.E.
DATE: October 1, 2012 - 11:17:07 PM
DRAWING: S:\WORK\10-0006\10-0006-001-DWG-C-001-01-STORM_PROFILES_10-0006.dwg



ATTENTION SEWER CONTRACTOR

FOR SEWER PIPE (STORM, SANITARY, & COMBINED) WITH A DESIGN GRADE LESS THAN ONE PERCENT (1%), VERIFICATION OF THE PIPE GRADE WILL BE REQUIRED FOR EACH INSTALLED REACH OF SEWER PRIOR TO ANY SURFACE RESTORATION OR INSTALLATION OF ANY SURFACE IMPROVEMENTS. THE CONTRACTOR'S FIELD SUPERVISOR WILL BE REQUIRED TO PROVIDE DAILY DOCUMENTATION VERIFYING THAT THE AS-BUILT PIPE GRADE MEETS THE DESIGN THROUGH THE SUBMITTAL OF SOAKED OUT SHEETS TO THE CITY INSPECTOR UPON REQUEST.

FIELD SURVEYED VERIFICATION MUST BE MADE UNDER THE DIRECTION OF THE LICENSED LAND SURVEYOR OR REGISTERED ENGINEER. THE CONTRACTOR WILL BE REQUIRED TO REMOVE & REPLACE ANY SEWER REACH HAVING AN AS-BUILT GRADE WHICH IS FLATTER THAN THE DESIGN GRADE BY MORE THAN 0.1%. SEWERS WITH GRADES GREATER THAN THE DESIGN GRADE MAY BE LEFT IN PLACE PROVIDED NO OTHER SEWER GRADE IS AFFECTED BY THIS VARIANCE IN THE AS-BUILT GRADE.

THE CITY ALSO RESERVES THE RIGHT TO REQUIRE THE CONTRACTOR TO REMOVE & REPLACE ANY SEWER (AT ANY TIME PRIOR TO COMPLETION THEREOF) FOR WHICH THE AS-BUILT GRADE DOES NOT COMPLY WITH THE GRADE TOLERANCE STATED IN THE ABOVE PARAGRAPH.

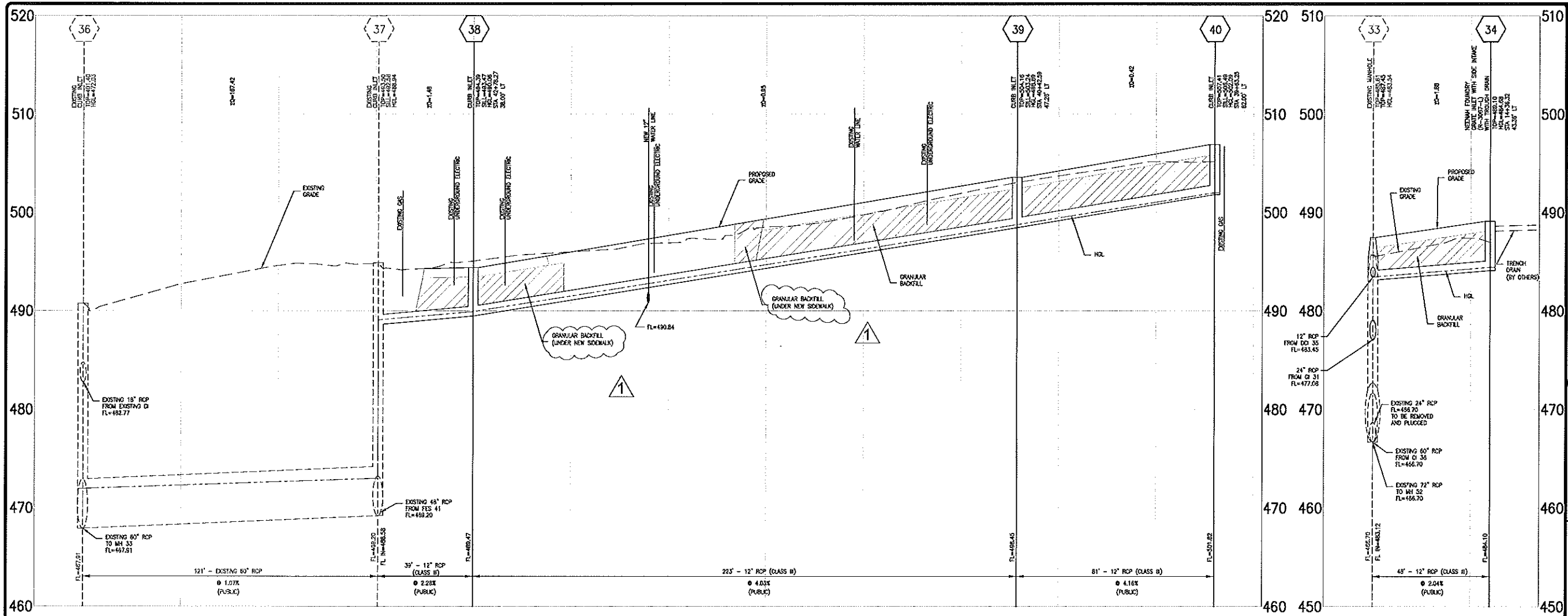
THE SEWER CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COST ASSOCIATED WITH THE FIELD VERIFICATION OF THE SEWER GRADE, OR REMOVAL & REPLACEMENT OF THE SEWER PIPE & ASSOCIATED APPURTENANCES.

ALL UNDERGROUND UTILITIES SHOWN HAVE BEEN PLOTTED FROM AVAILABLE INFORMATION, AND THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THE VERIFICATION OF ALL UTILITIES SHOWN OR NOT SHOWN SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE LOCATED PRIOR TO ANY GRADING OR CONSTRUCTION OF IMPROVEMENTS.

1 STORM SEWER PROFILES
 SCALE: HOR. 1"=20' VERT. 1"=5'
 REF. DWG. C3.4

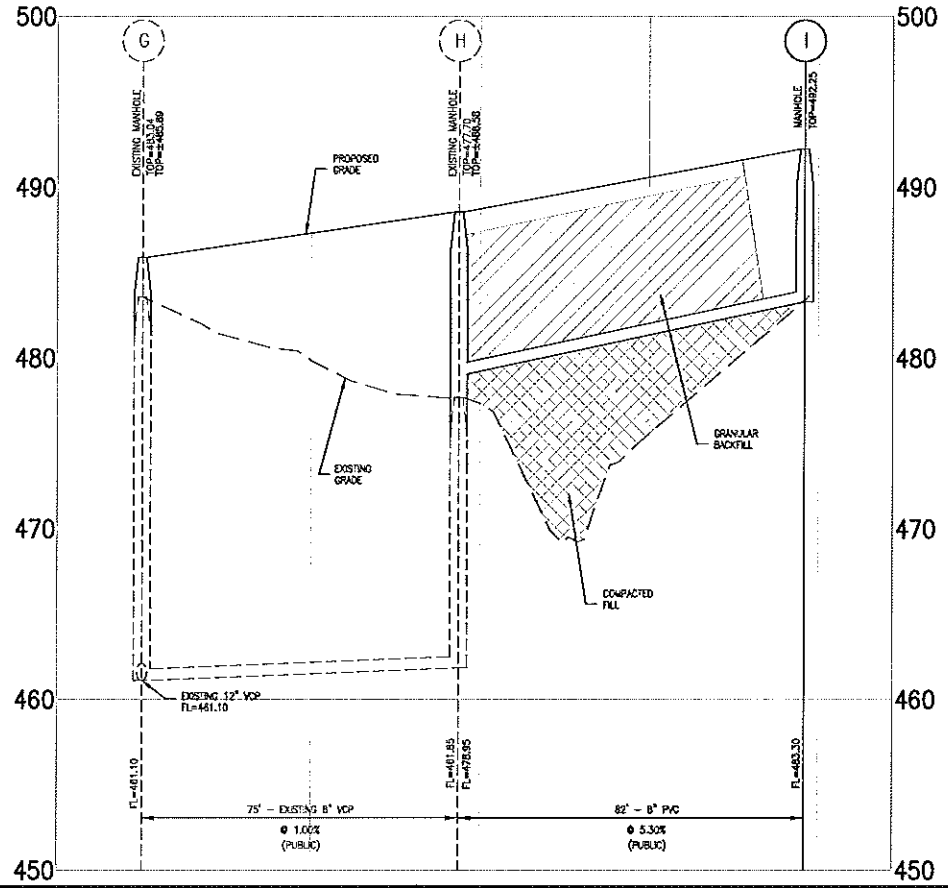
<p>CULLINAN PROPERTIES, LTD. 1540 SOUTH 9TH ST. ST. CHARLES, MD 03503 TEL: (410) 757-1150 FAX: (410) 757-1150</p>		<p>DATE: 10/12/12</p> <p>NO. REVISION DESCRIPTION</p>
<p>DEVELOPER/OWNER: CULLINAN PROPERTIES, LTD. 1540 SOUTH 9TH ST. ST. CHARLES, MD 03503 TEL: (410) 757-1150 FAX: (410) 757-1150</p>		<p>DATE: 08/15/12</p>
<p>CIVIL ENGINEER: THOMAS D. BAKER P.E. No. 15100 STATE OF MARYLAND PROFESSIONAL ENGINEERING BOARD NO. 000115</p>		
<p>STREETS OF ST. CHARLES - ORFITE ROAD IMPROVEMENTS FEDERAL PROJECT NO. CMAQ - 544 (84) 5TH STREET INTERSECTION IMPROVEMENTS FIFTH STREET ST. CHARLES, MD 03503</p>		
<p>STORM PROFILES</p>		
<p>+ ST. CHARLES 1343 Tom Glinner Ave. P.O. Box 101 St. Charles, MD 03506 03607627500 or 03607627599 fax</p>		
<p>cole CIVIL ENGINEERING / SURVEYING / PLANNING / LANDSCAPE ARCHITECTURE Cole & Associates, Inc.</p>		
<p>DESIGN/CALC BY: MJM</p> <p>DRAWN BY: MJM</p> <p>CHECKED BY: TCB</p> <p>DRAWING SCALE: -</p> <p>DATE: 10-13-2011</p> <p>Job Number: 10-0006</p> <p>Sheet Number: C5.2</p>		

USER: Tim Baker TAB: SDRM-2
 DATE: October 1, 2012 11:00 AM
 DRAWING: STREETS OF ST. CHARLES (C3.4) - STORM PROFILES - (C-0001.dwg)



2 STORM SEWER PROFILES
 SCALE: HOR. 1"=20' VERT. 1"=5'
 REF. DWG. C3.3

1 STORM SEWER PROFILES
 SCALE: HOR. 1"=20' VERT. 1"=5'
 REF. DWG. C3.4



3 SANITARY SEWER PROFILES
 SCALE: HOR. 1"=20' VERT. 1"=5'
 REF. DWG. C3.4

ATTENTION SEWER CONTRACTOR

FOR SEWER PIPE (STORM, SANITARY, & COMBINED) WITH A DESIGN GRADE LESS THAN ONE PERCENT (1%), VERIFICATION OF THE PIPE GRADE WILL BE REQUIRED FOR EACH INSTALLED REACH OF SEWER, PRIOR TO ANY SURFACE RESTORATION OR INSTALLATION OF ANY SURFACE IMPROVEMENTS. THE CONTRACTOR'S FIELD SUPERVISOR WILL BE REQUIRED TO PROVIDE DAILY DOCUMENTATION VERIFYING THAT THE AS-BUILT PIPE GRADE MEETS THE DESIGN THROUGH THE REMAINDER OF SIGNED OUT SHEETS TO THE CITY INSPECTOR UPON REQUEST.

FIELD SURVEYED VERIFICATION MUST BE MADE UNDER THE DIRECTION OF THE LICENSED LAND SURVEYOR OR REGISTERED ENGINEER. THE CONTRACTOR WILL BE REQUIRED TO REMOVE & REPLACE ANY SEWER BEING LAYED AT AN AS-BUILT GRADE WHICH IS FLATTER THAN THE DESIGN GRADE BY MORE THAN 0.01% SEWERS WITH GRADES GREATER THAN THE DESIGN SLOPE MAY BE LEFT IN PLACE PROVIDED NO OTHER SEWER GRADE IS REDUCED BY THIS VARIANCE IN THE AS-BUILT GRADE.

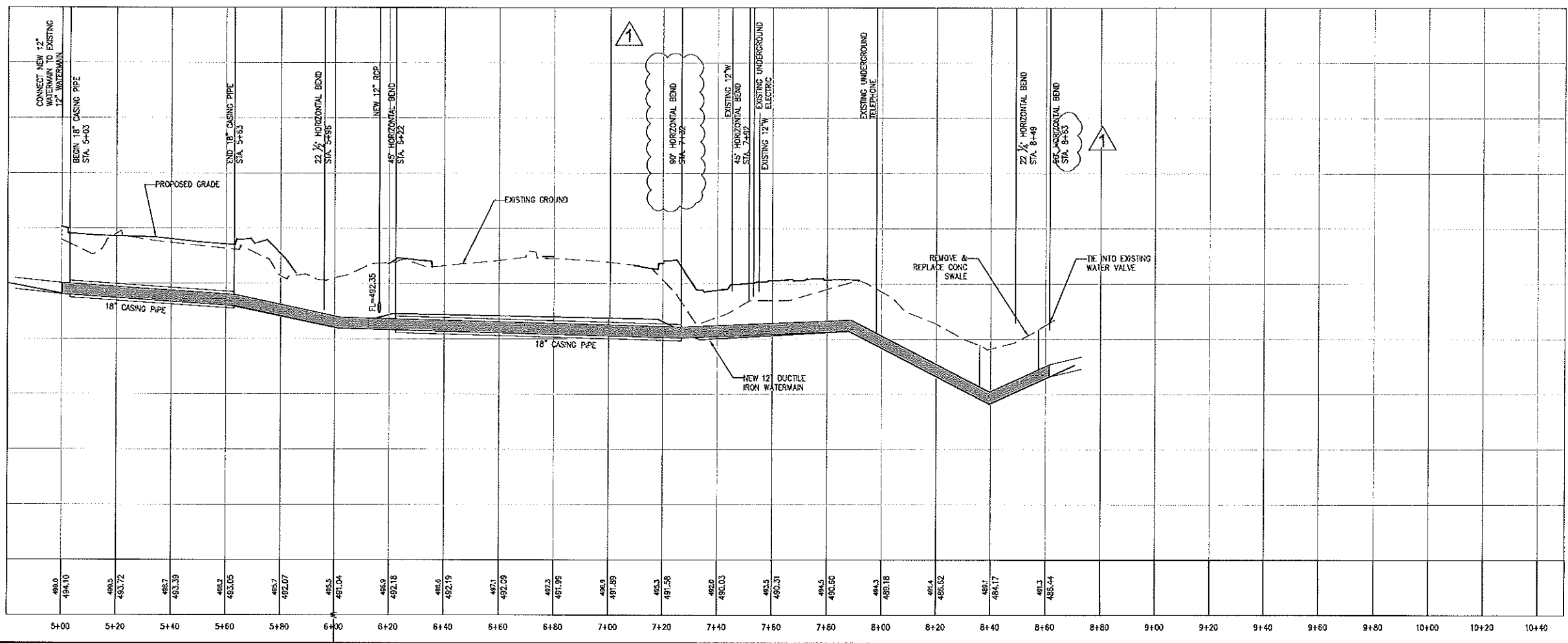
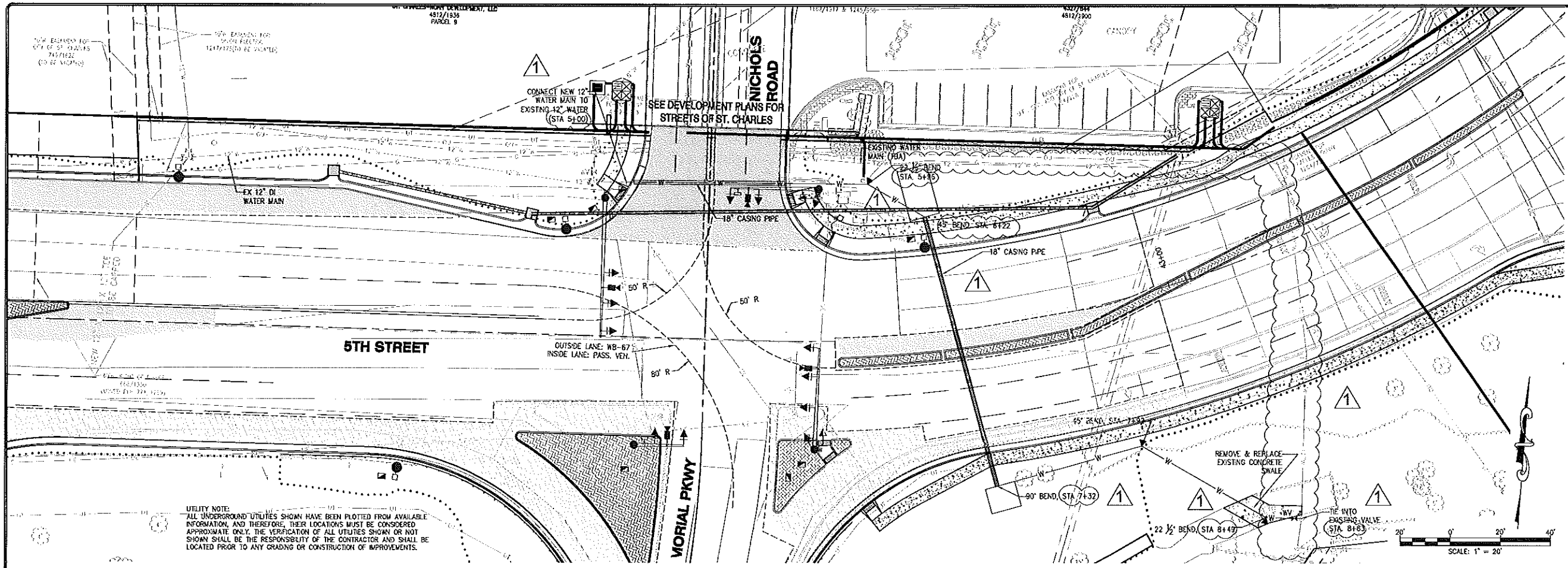
THE CITY ALSO RESERVES THE RIGHT TO REQUIRE THE CONTRACTOR TO REMOVE & REPLACE ANY SEWER (IN ANY THE PRIOR TO CONSTRUCTION APPROVAL) FOR WHICH THE AS-BUILT GRADE DOES NOT COMPLY WITH THE GRADE TOLERANCE STATED IN THE ABOVE PARAGRAPH.

THE SEWER CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COST ASSOCIATED WITH THE FIELD VERIFICATION OF THE SEWER GRADE, OR REMOVAL & REPLACEMENT OF THE SEWER PIPE & ASSOCIATED APPURTENANCES.

ALL UNDERGROUND UTILITIES SHOWN HAVE BEEN PLOTTED FROM AVAILABLE INFORMATION, AND THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THE VERIFICATION OF ALL UTILITIES SHOWN OR NOT SHOWN SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE LOCATED PRIOR TO ANY GRADING OR CONSTRUCTION OF IMPROVEMENTS.

DEVELOPER/OWNER CULLINAN PROPERTIES, LTD. 2700 W. BROADWAY, SUITE 200 PH. (410) 757-1100 FAX (410) 757-1118	
CIVIL ENGINEERS 	
STREETS OF ST. CHARLES - OFFSITE ROAD IMPROVEMENTS FEDERAL PROJECT NO. CHAQ - 544 (64) 5TH STREET INTERSECTION IMPROVEMENTS 5TH STREET ST. CHARLES, MD 21053	
STORM & SANITARY PROFILES	
DESIGN/DATE BY MUM DRAWN BY MUM CHECKED BY TCR DRAWING SCALE DATE 10-13/2011 Job Number 10-0006 Sheet Number C5.3	
+ ST. CHARLES 1243 Tim Givener Ave. P.O. Box 100 St. Charles, MD 21053 410.778.7200 410.778.7209 fax	
CIVIL ENGINEERING / SURVEYING / PLANNING / LANDSCAPE ARCHITECTURE Cole & Associates, Inc.	

USER: Tim Baker TAB: STORM-3
 DRAWING: CHAQ-544-010-10-000-C5.3-STORM PROFILES-10-000-000.dwg

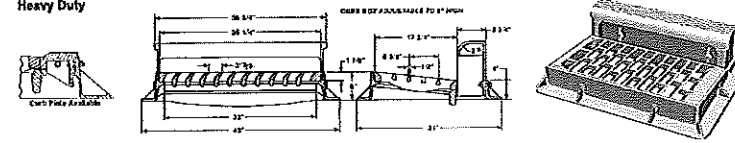


USER: T:\Bor\746 WATER RELOCATION P&P
 DRAWING: S:\2006\10-13-2011\10-13-2011\CD-C-0416-WATERMAIN RELOCATION_PP_10-0006.dwg

<p>DEVELOPER/OWNER: CULLINAN PROPERTIES, LTD. 1100 BROADWAY ST. CHARLES, MD 21783 PH: (410) 757-1100 FAX: (410) 757-1108</p>	<p>NO. 10-0006</p> <p>DATE: 10-13/2011</p>
<p>CIVIL ENGINEER</p> <p>MATTHEW D. BAKER 15472 12/31/2015</p>	<p>NO. 10-0006</p> <p>DATE: 10-13/2011</p>
<p>STREETS OF ST. CHARLES - OFFSITE ROAD IMPROVEMENTS FEDERAL PROJECT NO. CMAAQ - 584 (84) 5TH STREET INTERSECTION IMPROVEMENTS FIFTH STREET ST. CHARLES, MD 21783</p>	<p>WATER RELOCATION P&P</p>
<p>ST. CHARLES 1243 Tom Gimney Ave. P.O. Box 10 St. Charles, MD 21786 610.576.7598 fax 610.576.7599 fax</p>	<p>DESIGN/CALC BY: MJM DRAWN BY: MJM CHECKED BY: TCB DRAWING SCALE: - DATE: 10-13/2011 Job Number: 10-0006 Sheet Number: C6.2</p>
<p>cole CIVIL ENGINEERING / SURVEYING / PLANNING / LANDSCAPE ARCHITECTURE Cole & Associates, Inc.</p>	

**R-3087-L
Combination Inlet Frame, Grate, Curb Box**

Heavy Duty

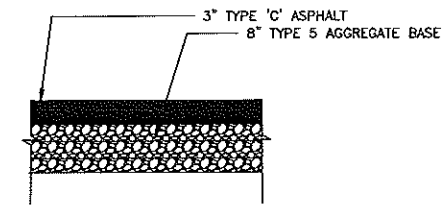


Available Curb Boxes: 2' Radius Open, 3' Radius Open.
Enviro-Curb Boxes available, see page 121.

NOTE: SEE STORM SEWER PROFILES FOR LOCATION AND GRATE SPECIFICATION.

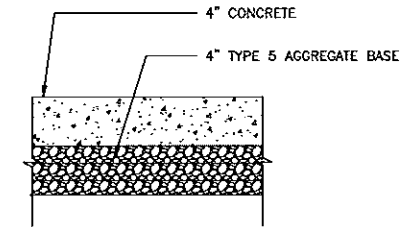
6 NEENAH GRATE

SCALE: N.T.S. REF. DWG. C6.0



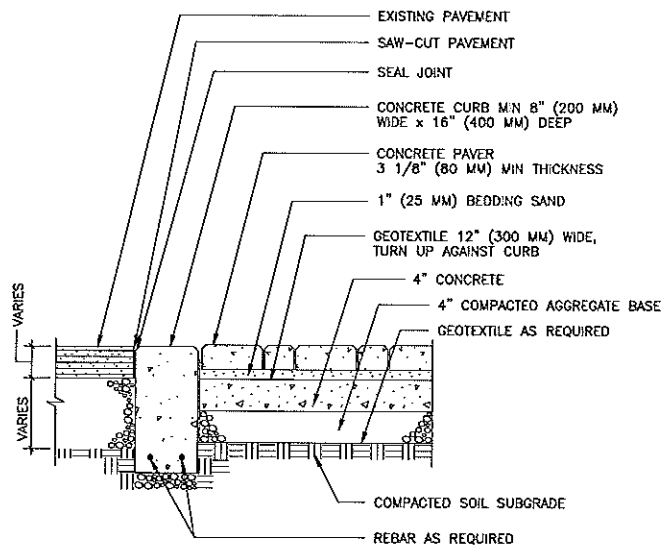
5 PARKING LOT PAVEMENT DETAIL

SCALE: N.T.S. REF. DWG.



4 CONCRETE @ CUT THROUGH

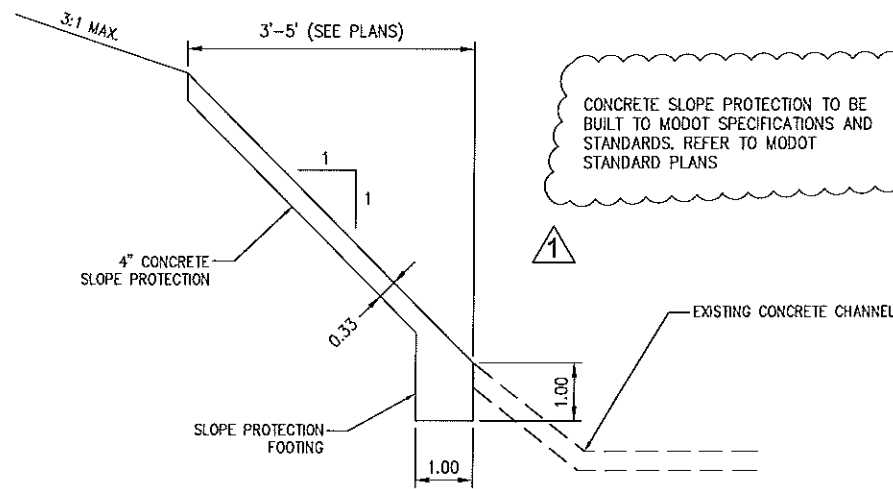
SCALE: N.T.S. REF. DWG.



- NOTES:
1. BASE THICKNESS VARIES WITH TRAFFIC, CLIMATE, AND SUBGRADE CONDITIONS.
 2. CONCRETE CURBS DO NOT DEFLECT TO THE SAME DEPTH AS PAVERS OR EXISTING ASPHALT. THIS DETAIL IS NOT RECOMMENDED FOR OTHER THAN LOW VOLUME RESIDENTIAL STREETS.
 3. THICKENING ASPHALT PAVEMENT ADJACENT TO CONCRETE CURB IS RECOMMENDED.

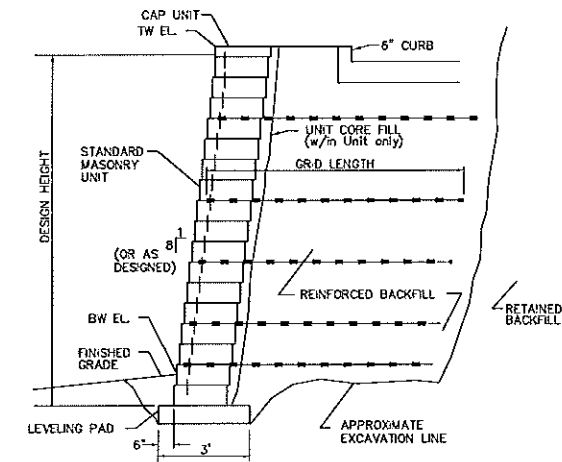
3 PAVERS ON COMPACTED AGG. BASE

SCALE: N.T.S. REF. DWG.



2 CONCRETE SLOPE PROTECTION

SCALE: N.T.S. REF. DWG.



1. RETAINING WALL, TIE BACK, AND DRAINAGE BEHIND WALL SHALL BE DESIGNED BY THE MASONRY BLOCK SUPPLIER OR INSTALLER. THIS DESIGN MUST BE SIGNED AND SEALED BY A MISSOURI REGISTERED PROFESSIONAL ENGINEER AND SUBMITTED TO THE GENERAL CONTRACTOR AS PART OF THE WALL PERMIT PACKAGE. CIVIL ENGINEER IS NOT RESPONSIBLE FOR WALL DESIGN.
2. TW= ELEVATION AT TOP OF WALL ARE REQUIRED TO CATCH BACKFILL SLOPES.
3. BW= ELEVATION OF FINISHED GRADE OR PAVEMENT AT THE FRONT SIDE AND TOP OFF WALL. THE DEPTH OF FOOTING SHALL BE DETERMINED BY THE RETAINING WALL DESIGN ENGINEER. WALL BATTER TO BE COORDINATED WITH PROPERTY LINE LOCATION.
4. KEYSTONE SYSTEMS ARE AN ACCEPTABLE ALTERNATIVE TO VERSA-LOK SYSTEMS.
5. GENERAL CONTRACTOR TO SUBMIT SHOP DRAWINGS TO COLE & ASSOCIATES FOR REVIEW OF GRADES PRIOR TO CONSTRUCTION.

1 RETAINING WALL DETAIL

SCALE: N.T.S. REF. DWG. C4.1

USER: P:\Baker\2008\DETAILS-12 10-0000.dwg
 DATE: 10/13/2011 10:00 AM
 PLOT: C:\Users\Baker\My Documents\2008\DETAILS-12\10-0000.dwg

REV	DATE	DESCRIPTION
1	10/13/2011	ISSUE FOR CONSTRUCTION
2		
3		
4		
5		
6		

DEVELOPER/OWNER:
CULLINAN PROPERTIES, LTD.
 1500 SOUTH 6TH ST.
 ST. CHARLES, MO 63303
 TEL: (630) 757-1188
 FAX: (630) 757-1188

CIVIL ENGINEER:
STREETS OF ST. CHARLES
 OFFICE: 1243 Tom Givener Ave.
 ST. CHARLES, MO 63303
 TEL: 636.978.2208
 FAX: 636.978.2209

CIVIL ENGINEER:
COLE
 CIVIL ENGINEERING / SURVEYING / PLANNING / LANDSCAPE ARCHITECTURE
 Cole & Associates, Inc.

DESIGN/DATE BY: MJM
 DRAWN BY: MJM
 CHECKED BY: TCB
 DRAWING SCALE:
 DATE: 10-13/2011
 Job Number: 10-0006
 Sheet Number: C9.12