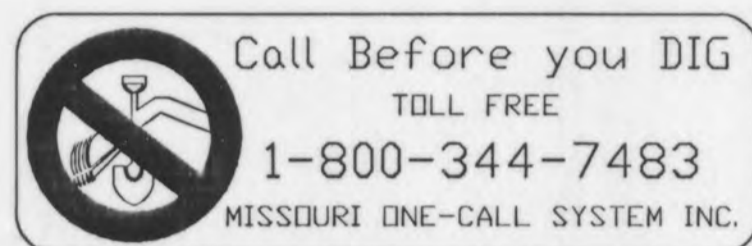


PREPARED FOR:

S.A.K. CONSTRUCTION, L.L.C.
 MR. JERRY SHAW, PRESIDENT
 103 NORTH COOL SPRINGS ROAD
 O'FALLON, MISSOURI 63366
 TELEPHONE: (636) 379-2350
 FAX: (636) 379-2461



Underground facilities, structures and utilities have been plotted from available surveys, records and information, and therefore, do not necessarily reflect the actual existence, non-existence, size, type, number of, or location of these facilities, structures, and utilities. The Contractor shall be responsible for verifying the actual location of all underground facilities, structures, and utilities, either shown or not shown on these plans. The underground facilities, structures, and utilities shall be located in the field prior to any grading, excavation or construction of improvements. These provisions shall in no way absolve any party from complying with the Underground Facility Safety and Damage Prevention Act, Chapter 319, RSMO.

NOTE: Developer must post a financial guarantee of performance (per an approved cost estimate) as required by Article 405 of Subdivision Ordinance.

NOTE: Riprap shown at flared ends will be evaluated in the field by the Engineer, Contractor and City Inspector after installation for effectiveness and field modified, if necessary, to reduce erosion on and off site.

NOTE: Developer must supply City construction inspectors with an Engineer's soil reports prior to and during site soil testing. The soil report will be required to contain the following information on soil test curves (Proctor reports) for projects within the City:

1. Maximum dry density
2. Optimum moisture content
3. Maximum and minimum allowable moisture content
4. Curve must be plotted to show density from a minimum of 90% compaction and above as determined by the "Modified AASHTO T-180 Compaction Test" (A.S.T.M.-D-1157) or from a minimum of 95% as determined by the "Standard Proctor Test AASHTO T-99, Method C" (A.S.T.M.-D-698). Proctor type must be designated on document.
5. Curve must have at least 5 density points with moisture content and sample locations listed on document
6. Specific gravity
7. Natural moisture content
8. Liquid limit
9. Plastic limit

Be advised that if this information is not provided to the City's Construction Inspector the City will not allow grading or construction activities to proceed on any project site.

NOTE: All low places whether on-site or off-site are graded to allow drainage. This can be accomplished with temporary ditches. Any off-site drainage easements will be acquired before grading begins.

NOTE: The Permittee shall assume complete responsibility for controlling all siltation and erosion of the project area. The Permittee shall use whatever means necessary to control erosion and siltation including, but not limited to, staked straw bales and/or siltation fabric fences (possible methods of control are detailed in the plan). Control shall commence with grading and be maintained throughout the project until acceptance of the work by the City of O'Fallon. The Permittee's responsibilities include all design and implementation as required to prevent erosion and the depositing of silt. The City of O'Fallon may at their option direct the Permittee in his methods as deemed fit to protect property and improvements. Any depositing of silts or mud on new or existing pavement shall be removed immediately. Any depositing of silts or mud in new or existing storm sewers or swales shall be removed after each rain and affected areas cleaned to the satisfaction of the City of O'Fallon.

NOTE: If materials such as trees, organic debris, rubble, foundations and other deleterious material are not to be reused, they shall be removed from the site and disposed of in compliance with all applicable laws and regulations. If the materials listed previously are reused, a letter from a soils engineer must clarify amount, location, depth, etc and be approved with the construction plans. Landfill tickets for such disposal shall be maintained on file by the developer. Burning on site shall be allowed only by permit from the local fire district. If a burn pit is proposed the location and mitigation shall be shown on the grading plan and documented by the soils engineer.

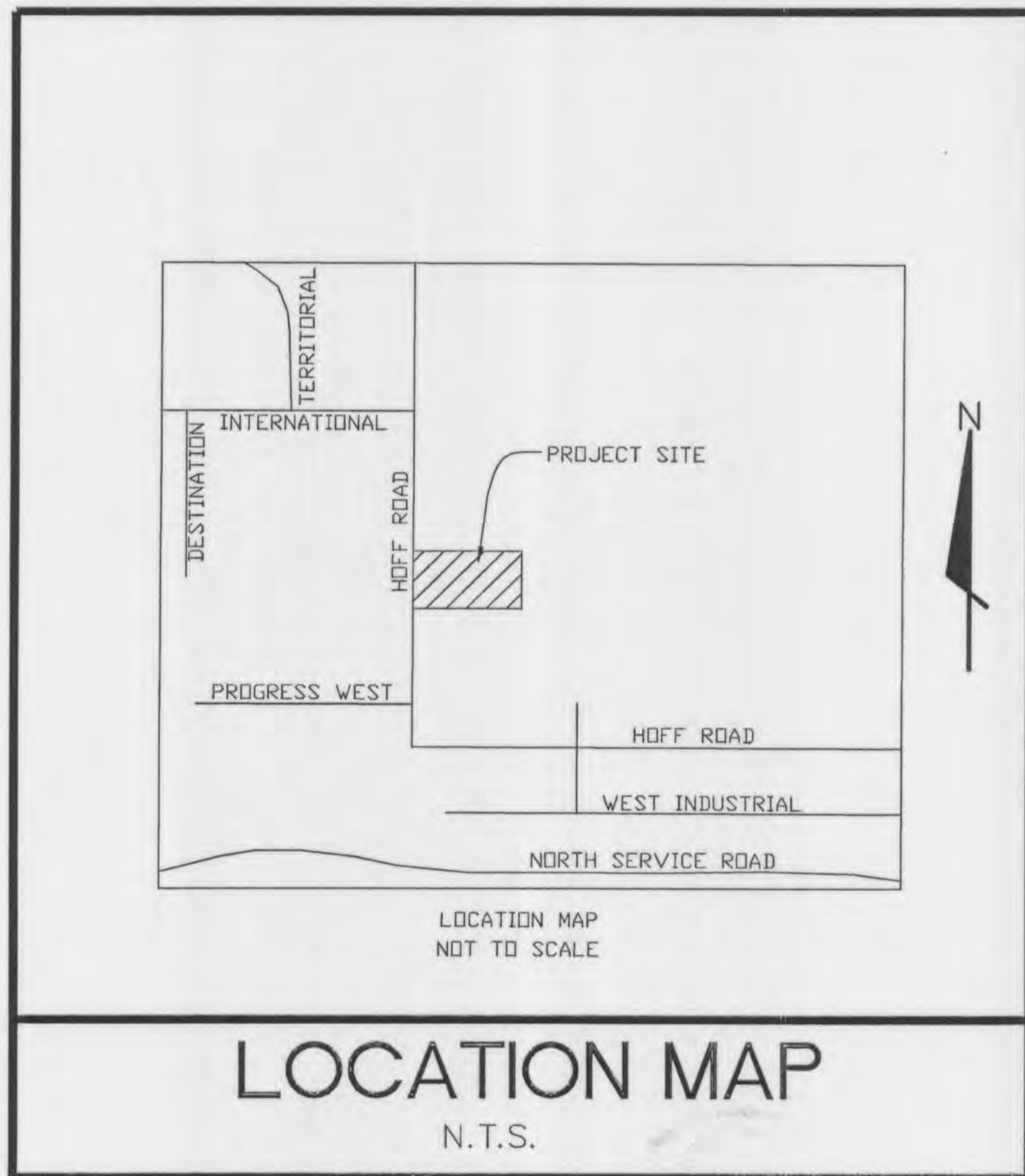
NOTE: All fill placed under proposed storm and sanitary sewer, proposed roads, and/or paved areas shall be compacted to 90% of maximum density as determined by the Modified AASHTO T-180 Compaction Test or 95% of maximum density as determined by the Standard Proctor Test AASHTO T-99. All fill placed in proposed roads shall be compacted to the bottom of the fill up. All tests shall be verified by a soils engineer concurrent with grading and backfilling operations. Moisture content of the soil in fill areas is to correspond to the compactive fill effort as defined by the standard or Modified Proctor Test. Optimum moisture content shall be determined using the same test that was used for compaction. Soil compaction curves shall be submitted to the City of O'Fallon prior to placement of fill. Proof rolling may be required to verify soil stability at the discretion of the City of O'Fallon.

NOTE: All paving to be in accordance with St. Charles County standards and specifications except as modified by the City of O'Fallon ordinances.

NOTE: Conditions of approval per June 7, 2010 Planning and Zoning letter, (file # 0408.02) are as follows

1. Staff will not support slats being used in the chain link fence. Staff recommends that eight proof mesh be installed. A detail of the fence with the mesh shall be included in the Construction plans.
2. The applicant shall coordinate with staff to have Hoff Road evaluated for serviceability and durability of use under the weight of vehicles and equipment.

A SITE PLAN FOR S.A.K. CONSTRUCTION SITE IMPROVEMENTS A TRACT OF LAND IN THE N.W. QUARTER OF FR. SEC. 25 T47N-R2E CITY OF O'FALLON ST. CHARLES CO., MO.



INDEX

- 1 COVER AND NOTES
- 2 GENERAL NOTES
- 3 SURVEY
- 4 DEMOLITION PLAN
- 5 SITE PLAN
- 6 GRADING PLAN
- 7 DETAILS
- 8 DETAILS
- 9 DETAILS
- 10 SWPPP NOTES AND DETAILS
- 11 PRE DEVELOPMENT DRAINAGE AREA MAP
- 12 POST DEVELOPMENT DRAINAGE AREA MAP

STORM AND SANITARY SEWER MEASUREMENTS
 THE EXISTING SEWER LENGTHS, SIZES, FLOWLINES, DEPTHS OF STRUCTURES AND SEWERS AND LOCATIONS WITH RESPECT TO EXISTING OR PROPOSED EASEMENTS HAVE BEEN MEASURED. THE RESULTS OF THOSE MEASUREMENTS ARE SHOWN ON THIS SET OF FINAL MEASUREMENT PLANS. SINCE THE WYE LOCATIONS HAVE BEEN PLOTTED FROM INFORMATION PROVIDED BY THE SEWER CONTRACTOR OR OTHER SOURCES, I DISCLAIM ANY RESPONSIBILITY FOR THAT SPECIFIC INFORMATION.

ALL PUBLIC SEWERS ARE LOCATED WITHIN DESIGNATED EXISTING OR PROPOSED EASEMENTS EXCEPT AS FOLLOWS:

38-22 59.80 DENOTES AS-BUILT (TYP.)
 METRON Surveying Co.
 14369 Olive Blvd.
 Chesterfield, Mo 63017
 Order: 380708 11-1-11
 Rev: 3-26-13



General Notes

1. Area of Site: 7.72 AC +/-.
2. Zoning: I-2 Heavy Industrial
3. Proposed Use: Manufacturing and Tunnel Equipment Maintenance
4. The following setbacks pertain to this site:

Minimum Front Yard:	30 feet
Minimum Side Yard:	25 feet
Minimum Rear Yard:	50 feet
5. This Site is served by the following utilities:

Water: City of O'Fallon	(636) 281-2858
Sanitary & Storm Sewer: City of O'Fallon	(636) 281-2858
Electric: AmerenUE	(636) 925-3235
Gas: Laclede Company	(636) 946-6170
Telephone: CenturyTel	(636) 332-7392
6. This Site is located in the following service areas:

Fire Protection: O'Fallon Fire Protection District
School District: R-3 Fort Zumwalt School District (West)
7. Project Benchmark: Iron Pipe, south west property corner.
 Elevation = 578.17 ft. (USGS)
8. Underground utilities have been plotted from available information and therefore their locations shall be considered approximate only. The verification of the location of all underground utilities, either shown or not shown on these plans shall be the responsibility of the contractor and shall be located prior to any grading or construction of the improvements.
9. All proposed utilities to this site must be underground services.
10. In accordance with the flood insurance rate map # 29183C0220 F, revised March 17, 2003, the closest cross section (CG) to the property on Perque creek is at elevation 485'. Therefore the finish floor elevation of 579.8 in the existing building is well out of the flood plain.
11. Tree Preservation:

Trees will not be removed during the construction of these improvements. Existing brush will be removed from the detention basin during the grading process.
12. Site Coverage:

Existing Buildings (2):	97,128 sq. ft.	28.9%
Existing/Proposed Pavement:	135,907 sq. ft.	40.4%
Green Space:	103,440 sq. ft.	30.7%
		100.0%
13. Site Parking Information:

Existing Main Building:	89,086 sq. ft.
-------------------------	----------------

Total parking spaces required: 150
 Total Proposed Parking Spaces: 75 (3 ADA)
 (Variance BA-V-10-07 approved May 12, 2010.)
14. Storage Yard will not be striped.
15. All items stored on site, which are not housed in side a physical storage structure, shall be maintained inside the designated storage area.
16. Hours of Operation:

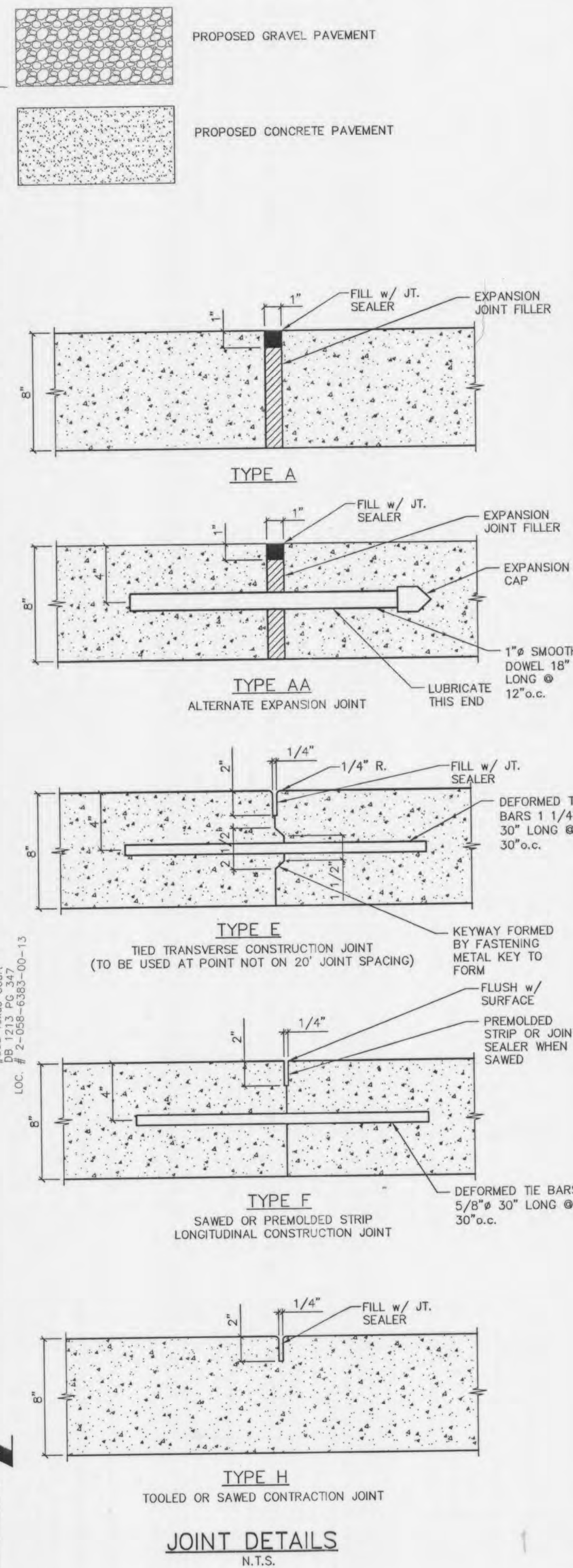
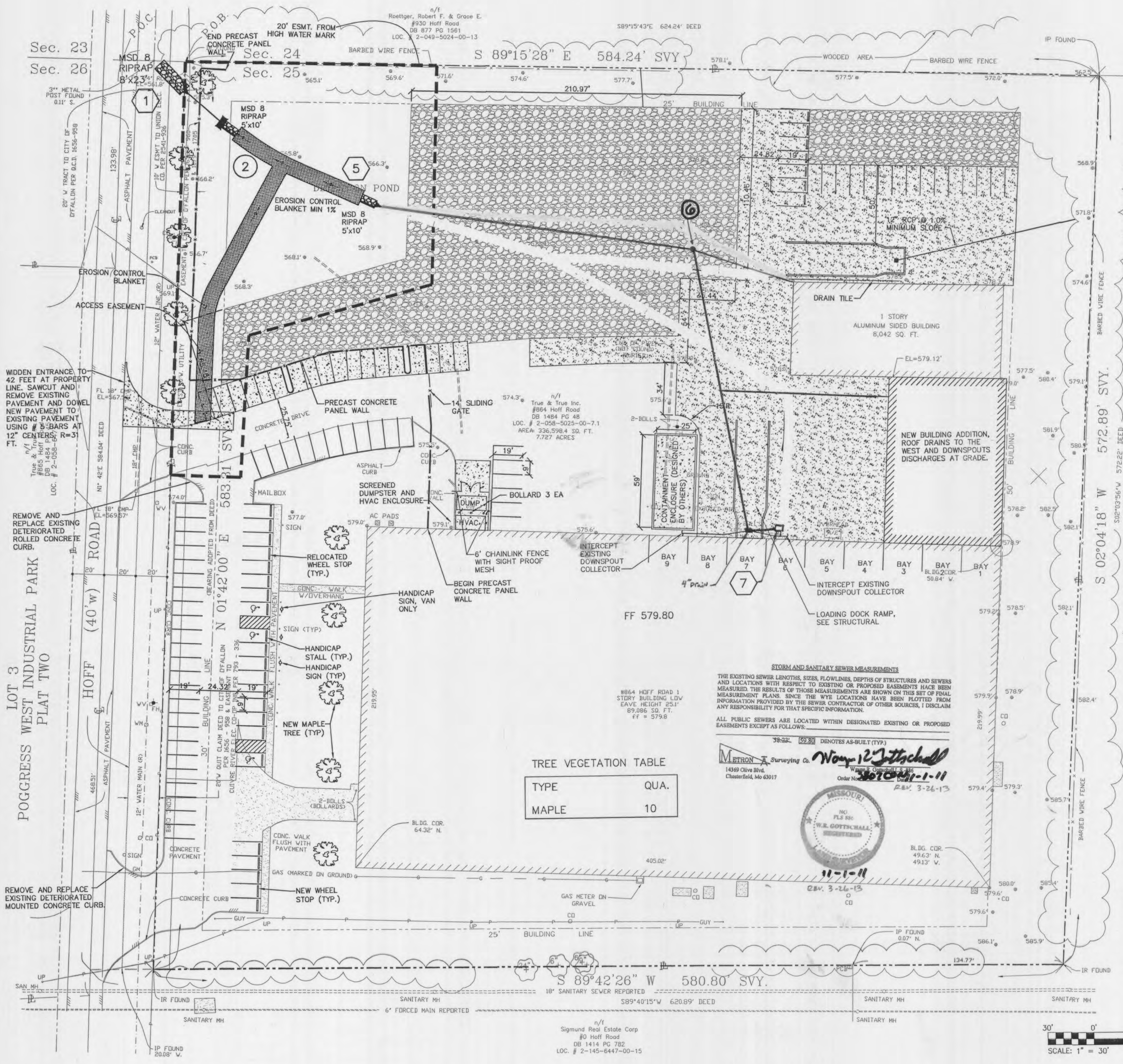
Normal Weekday Hours - Monday through Friday:	7:00 AM to 5:00 PM
Occasional Saturday Maintenance Hours:	8:00 AM to 4:30 PM

In cases of emergency, S.A.K. Construction may be require to mobilize at any time.
17. The storage yard will be graded to surface drain to the stormwater detention basin. Open graded aggregate within the base of the detention basin will provide the necessary storm water cleansing per NPDES Phase II requirements.
18. The storage yard surface will be the maintenance responsibility of S.A.K. Construction. Additional aggregate material may be added over time to properly maintain the yard surface, as determined by S.A.K.'s Engineers.
19. All identification and directional signs must have the locations and sizes approved and permitted separately through the Planning and Development Division.
21. Developer to post a financial guarantee of performance (per an approved cost estimate) as required by Article 405 of Subdivision Ordinance.
22. Detention to be provided with initial phase of development.
23. All Planning and Zoning Commission requirements are addressed.
25. The hauling of heavy equipment to and from S.A.K. Construction will be performed under appropriate permits for overweight and/or oversize loads issued by the State of Missouri Department of Transportation. In review of such an application, MODOT considers weight, number of axle and tire combination and axle spacing. In issuing such a permit, MODOT designates the route based upon bridges and height/weight restrictions, if any. To date, no specific restriction or concern has been identified for Hoff Road.
26. Property Owner: S.A.K. Construction L.L.C., Mr. Jerry Shaw President
 103 North Cool Springs Road, O'Fallon, MO 63366
27. The City of O'Fallon Construction Inspection Division shall be notified at (636) 379-5596 at least 48 hours prior to construction for coordination and 24 hours in advance of any required inspections.

SEWER AS BUILTS

P & D FILE NUMBER: 0408.02
 APPROVAL DATE: JUNE 3, 2011

Seal	
DATE: 1-19-11, EXP: 12-31-12 MARK DAVIS, CIVIL LIC. # 024250	
The State of Missouri Department of Professional Regulation DMA Inc., License No. Engineer: 001103, License No. Architect: 006020, License No. Survey: 000336	
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The seal(s) and signature(s) apply only to the document to which they are affixed, and expressly disclaim any responsibility for all other plans, specifications, estimates, reports or other documents or instruments relating to or parts of the Architectural or Engineering project.	
PM/CM Services Environmental	464 North Winchester St. Louis, Missouri 63103 Chicago, Illinois 60610 (314) 634-1030
Engineering Architecture Surveying	8504 Palms Blvd., Suite 850 Irving, Texas 75038 (972) 657-9400
DAVID MASON & ASSOCIATES	10000 E. 11th Ave., Suite 100 Denver, Colorado 80231 (303) 751-1000
REVISIONS	date
number	date
COVER AND NOTES SAK CONSTRUCTION SITE IMPROVEMENTS 864 HOFF ROAD O'FALLON, MISSOURI	
date 4-18-2011	
job no. 2010003-00	
ds.	dr. ck.
sheet no.	
C-1	

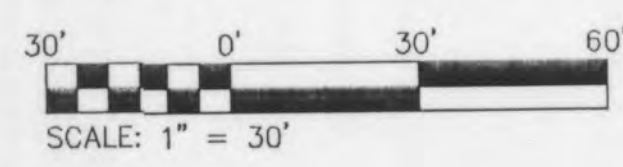


TREE VEGETATION TABLE

TYPE	QUA.
MAPLE	10

STORM AND SANITARY SEWER MEASUREMENTS
 THE EXISTING SEWER LENGTHS, SIZES, FLOW LINES, DEPTHS OF STRUCTURES AND SEWERS AND LOCATIONS WITH RESPECT TO EXISTING OR PROPOSED EASEMENTS HAVE BEEN MEASURED. THE RESULTS OF THOSE MEASUREMENTS ARE SHOWN ON THIS SET OF FINAL MEASUREMENT PLANS. SINCE THE WYE LOCATIONS HAVE BEEN PLOTTED FROM INFORMATION PROVIDED BY THE SEWER CONTRACTOR OR OTHER SOURCES, I DISCLAIM ANY RESPONSIBILITY FOR THAT SPECIFIC INFORMATION.
 ALL PUBLIC SEWERS ARE LOCATED WITHIN DESIGNATED EXISTING OR PROPOSED EASEMENTS EXCEPT AS FOLLOWS:
 38-38' 59.80' DENOTES AS-BUILT (TYP.)

METRON Surveying Co.
 1489 Olive Blvd.
 Chesterfield, Mo 63017
 Surveyor: *Wayne J. Jitschall*
 License No. 000000000
 Order No. 11-1-11
 Date: 3-26-13



Seal

DATE: 1-19-11, EXP: 12-31-12
 MARK DAVIS, CIVIL, LIC # 024050

The State of Missouri Department of Professional Regulation (DPR) License No. Engineer: 001103 License No. Architect: 000620 License No. Survey: 000338

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PM/CM Services
Environmental

Engineering
Architecture
Surveying

DAVID MASON & ASSOCIATES

8504 Barkers Blvd., Suite 850
 St. Louis, Missouri 63110
 Chicago, Illinois 60610
 (312) 884-5100
 (312) 867-8400

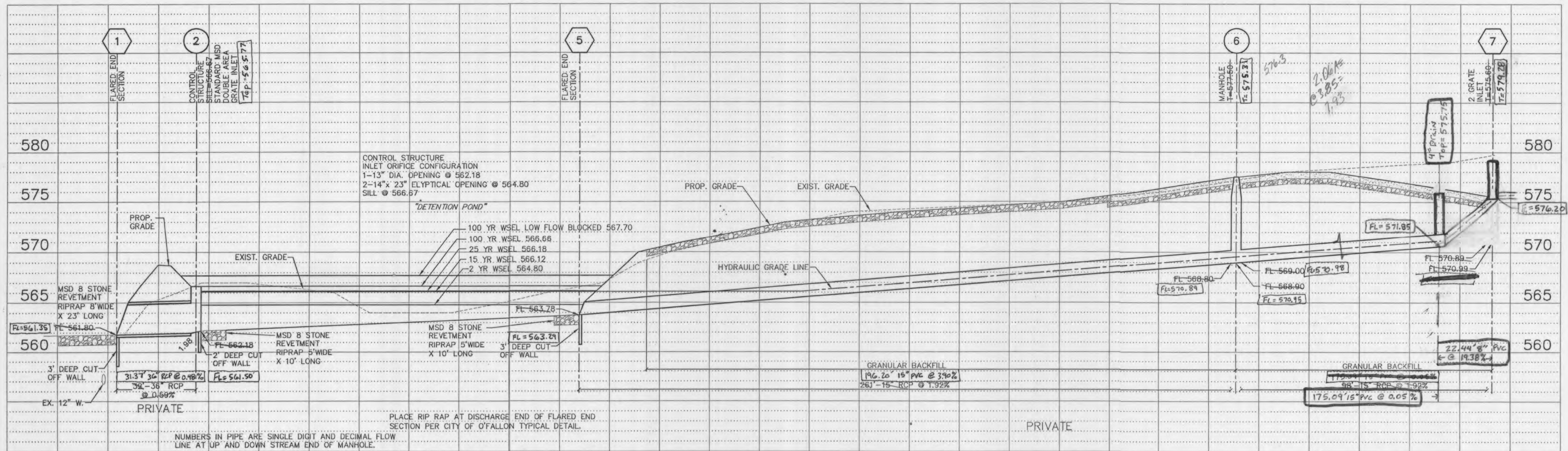
revisions	number	date

SITE PLAN
SAK CONSTRUCTION
SITE IMPROVEMENTS
 864 HOFF ROAD
 O'FALLON, MISSOURI

date: 4-18-2011
 job no. 2010003-00
 ds. dr. ck.
 sheet no.

C-5

SEWER AS BUILT



STORM AND SANITARY SEWER MEASUREMENTS

THE EXISTING SEWER LENGTHS, SIZES, FLOWLINES, DEPTHS OF STRUCTURES AND SEWERS AND LOCATIONS WITH RESPECT TO EXISTING OR PROPOSED BASEMENTS HAVE BEEN MEASURED. THE RESULTS OF THOSE MEASUREMENTS ARE SHOWN ON THIS SET OF FINAL MEASUREMENT PLANS SINCE THE WYE LOCATIONS HAVE BEEN PLOTTED FROM INFORMATION PROVIDED BY THE SEWER CONTRACTOR OR OTHER SOURCES. I DISCLAIM ANY RESPONSIBILITY FOR THAT SPECIFIC INFORMATION.

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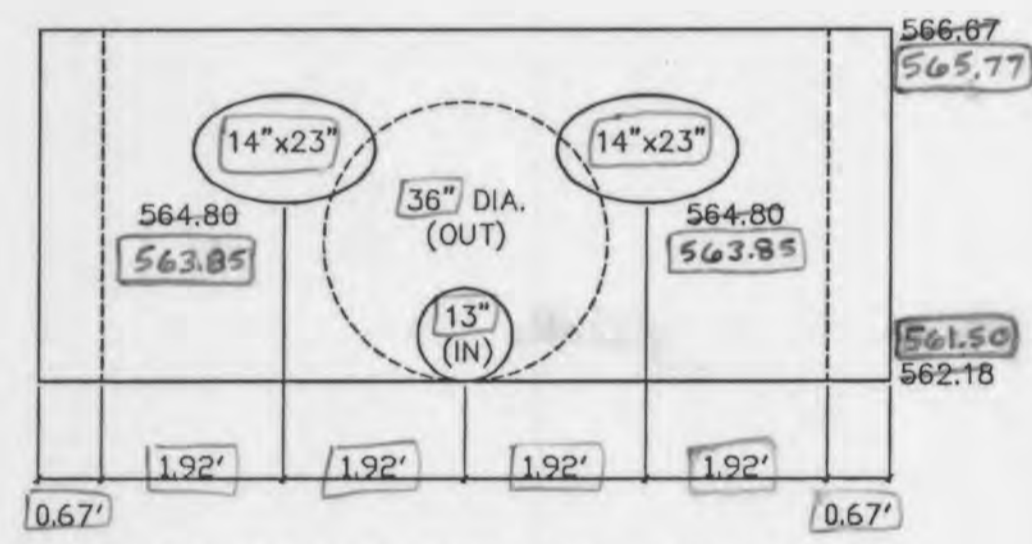
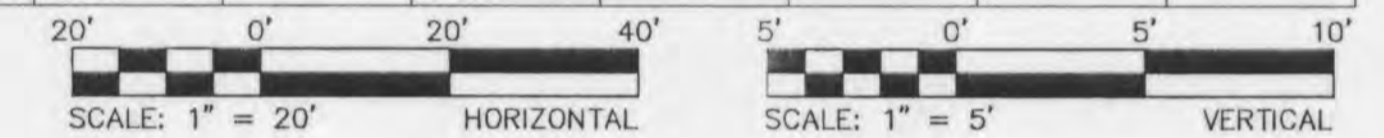
38-32, 59-20 DENOTES AS-BUILT (TYP.)

Metron Surveying Co.
1439 Olive Blvd.
Clayton, Mo 63017

Way & Sittler
Surveyors
11-1-N
Order No. 3607-11-1-N
REV. 3-26-13

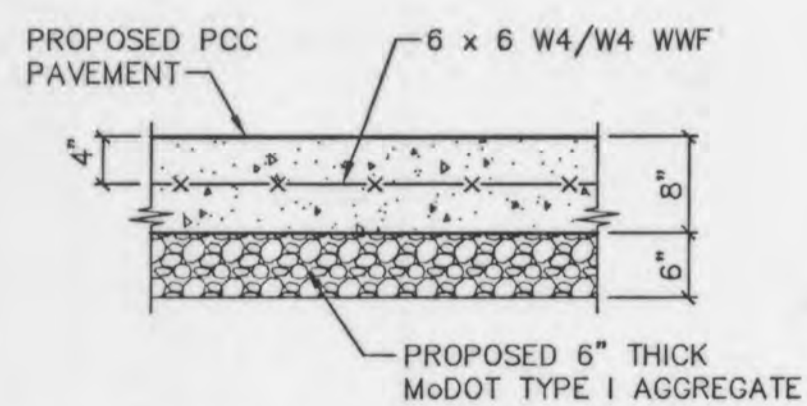


NOTE: PROVIDE A 0.20' DROP THRU STRUCTURES AND MANHOLES



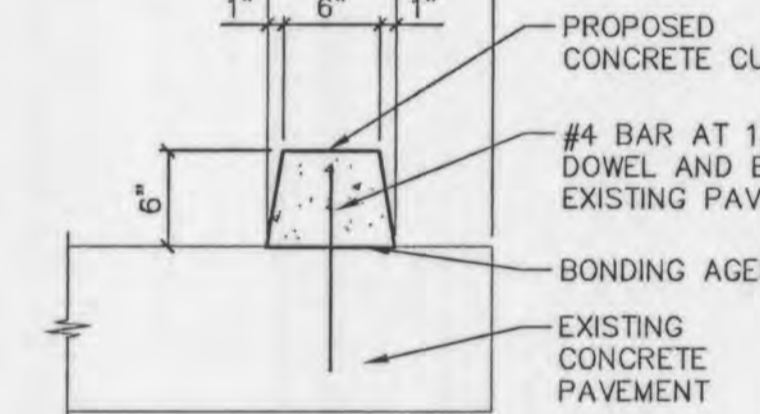
CONTROL STRUCTURE
N.T.S.

PROVIDE STRAW BALE SILTATION CONTROL FROM THE BOTTOM OF THE SILTATION BASIN TO THE TOP OF THE 13" LOW FLOW ORIFICE.

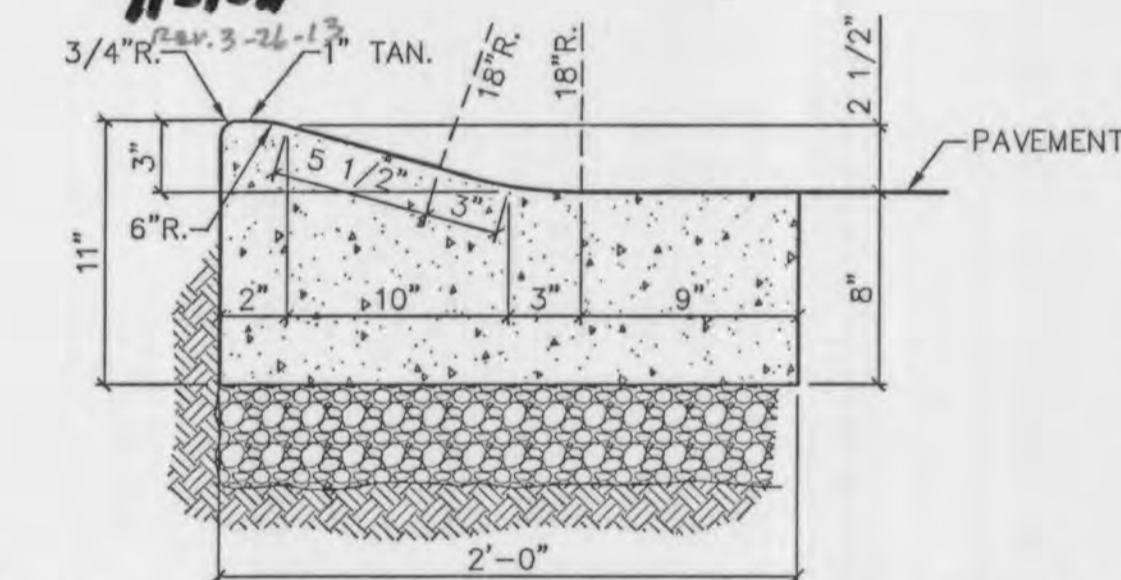


CONCRETE PAVEMENT DETAIL
N.T.S.

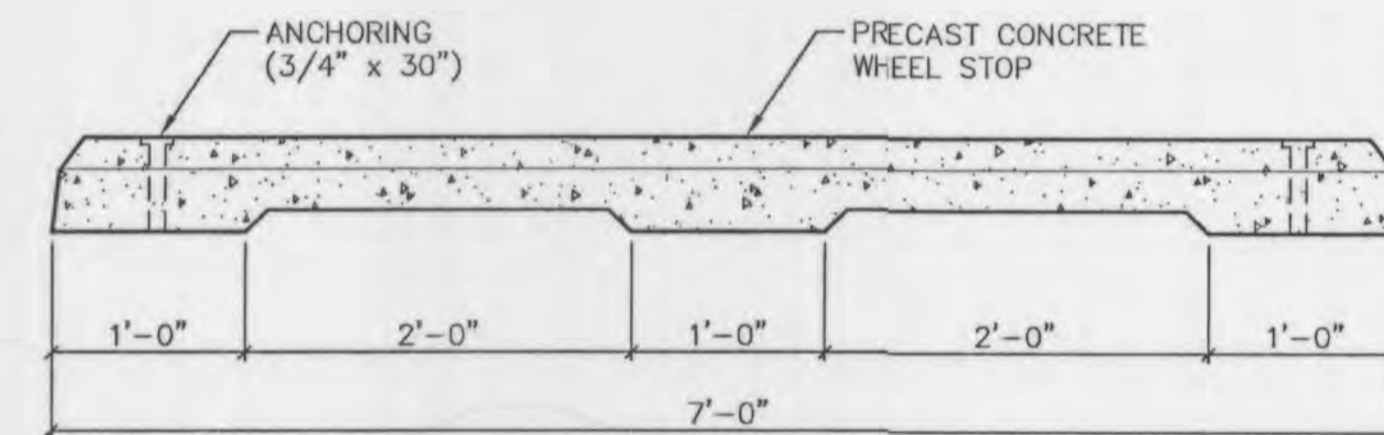
ALL NON-REINFORCED CONCRETE SHALL BE 4000 PSI AT 28 DAYS.
ALL GRANULAR ROLLED STONE BASE UNDER PROPOSED CONCRETE MUST BE COMPACTED TO 100% OF THE MAXIMUM DENSITY AS DETERMINED BY THE STANDARD PROCTOR TEST AASHTO T-99.



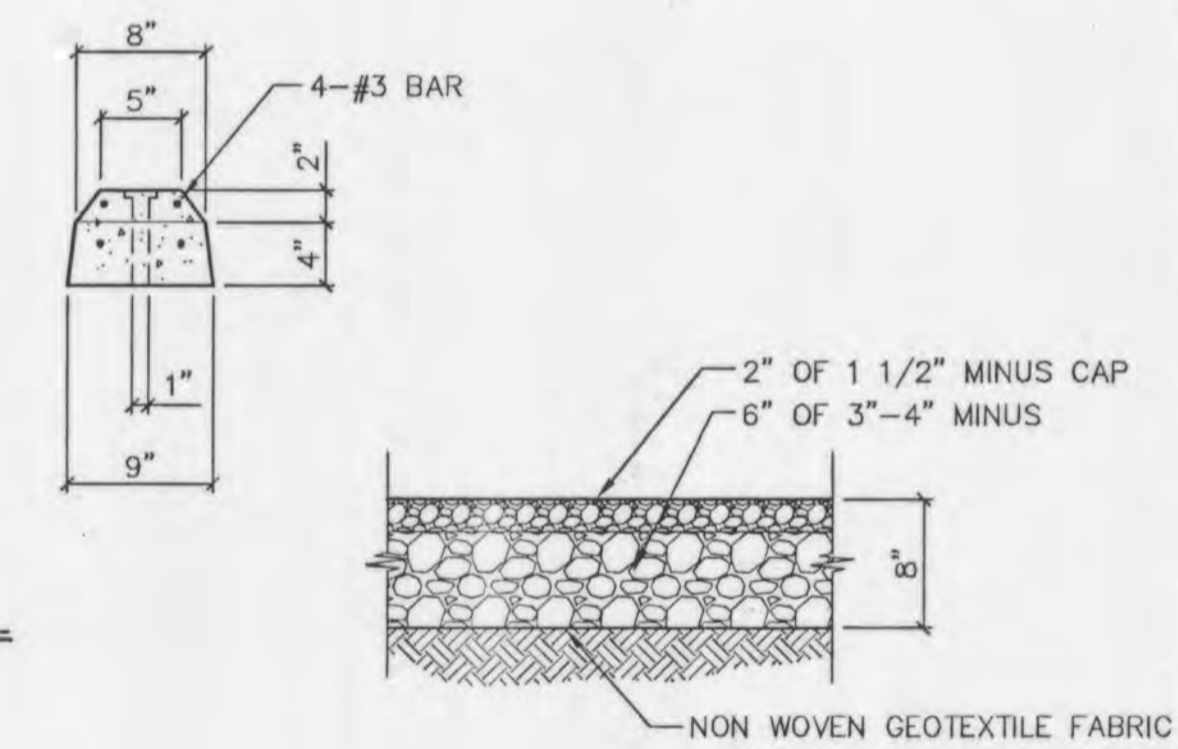
MOUNTED CONCRETE CURB
N.T.S.



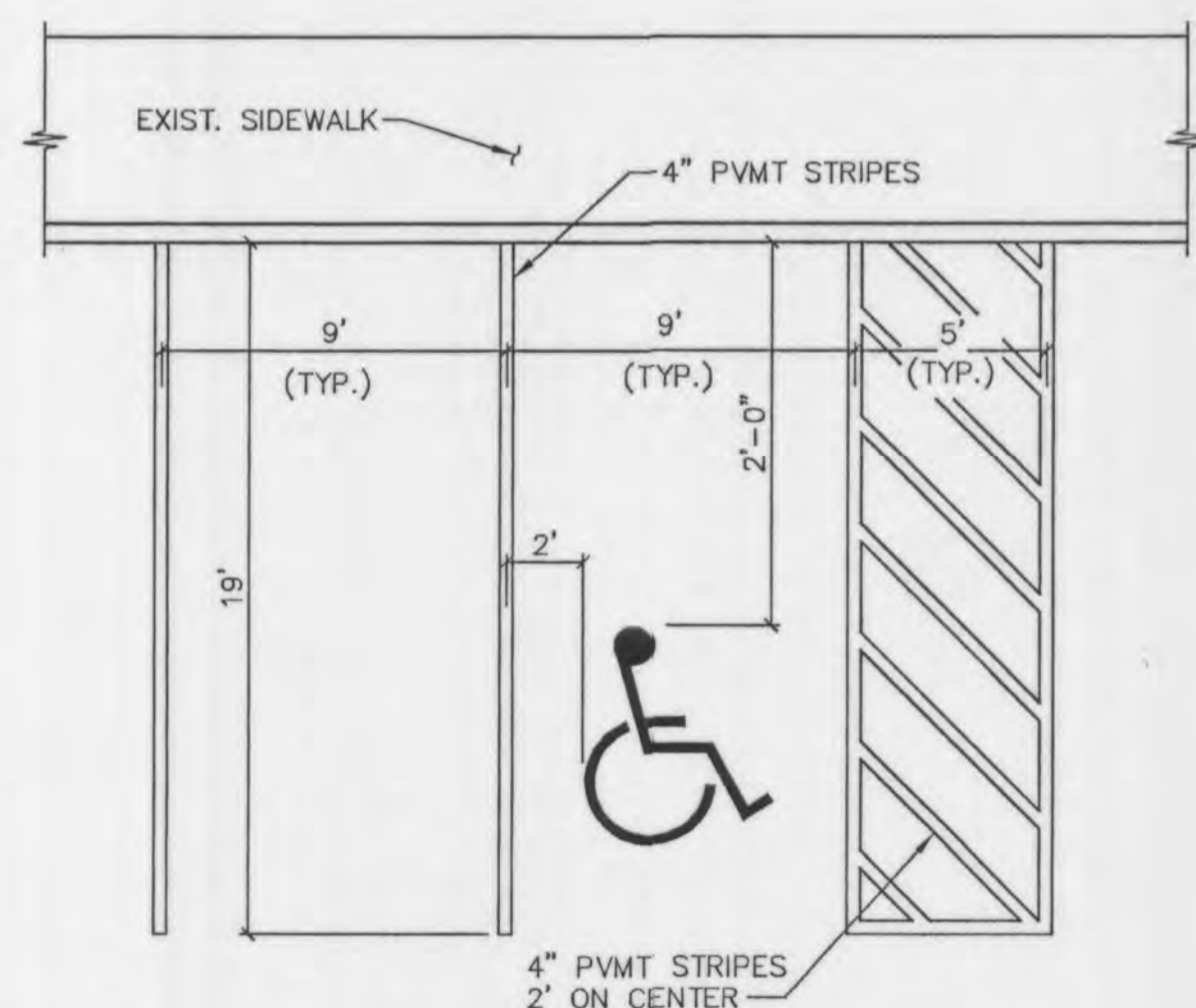
INTEGRAL CONCRETE ROLLED CURB DETAIL
N.T.S.



PRECAST CONCRETE WHEEL STOP DETAIL
N.T.S.



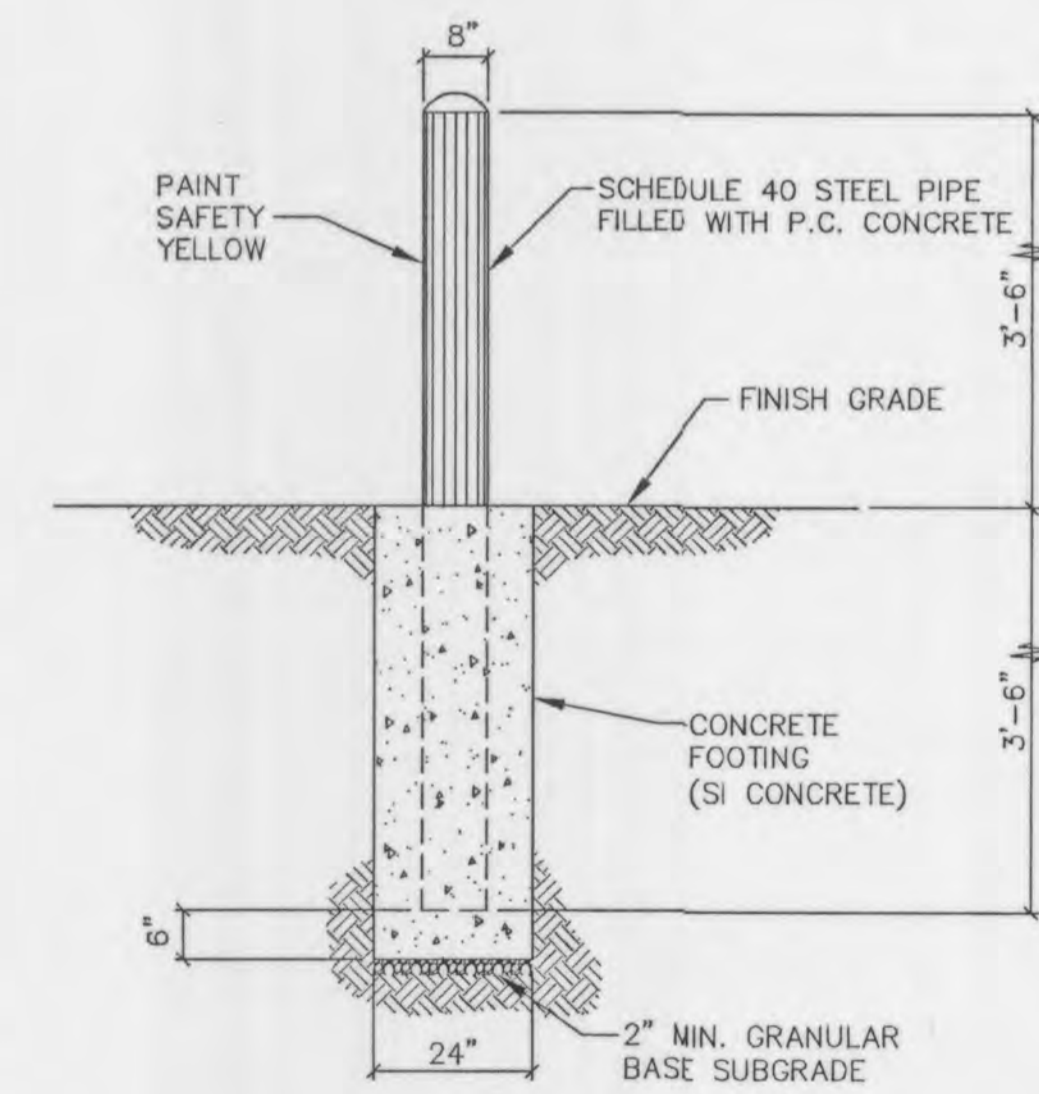
GRAVEL PAVEMENT SECTION
N.T.S.



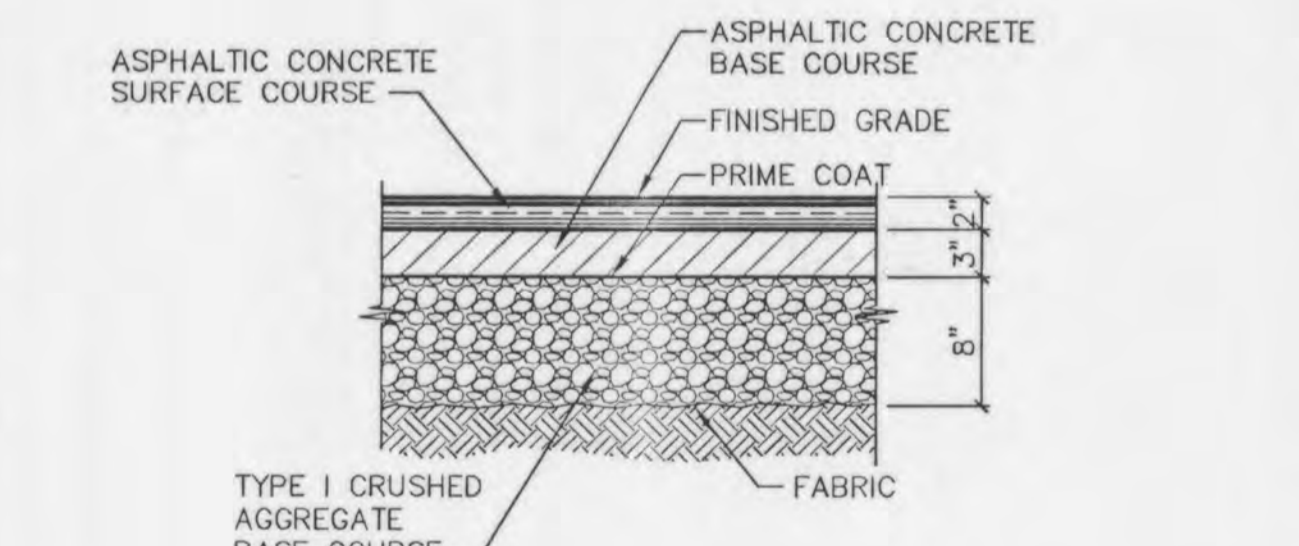
HANDICAP PARKING SPACE DETAIL
N.T.S.



TYPICAL HANDICAP SIGN
N.T.S.



BOLLARD DETAIL
N.T.S.



ASPHALTIC CONCRETE PAVEMENT DETAIL
N.T.S.

THE ASPHALT SURFACE SHALL BE COMPACTED TO 98% MAXIMUM DENSITY.

Seal

DATE: 1-19-11, EXP: 12-31-12
MARK DAVIS, CIVIL, LIC. # 024020
The State of Missouri Department of Professional Registration, Inc.
License No. Engineer: 001103
License No. Architect: 000620
License No. Survey: 000336

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PM/CM Services
Environmental

Engineering
Architecture
Surveying

DAVID MASON & ASSOCIATES

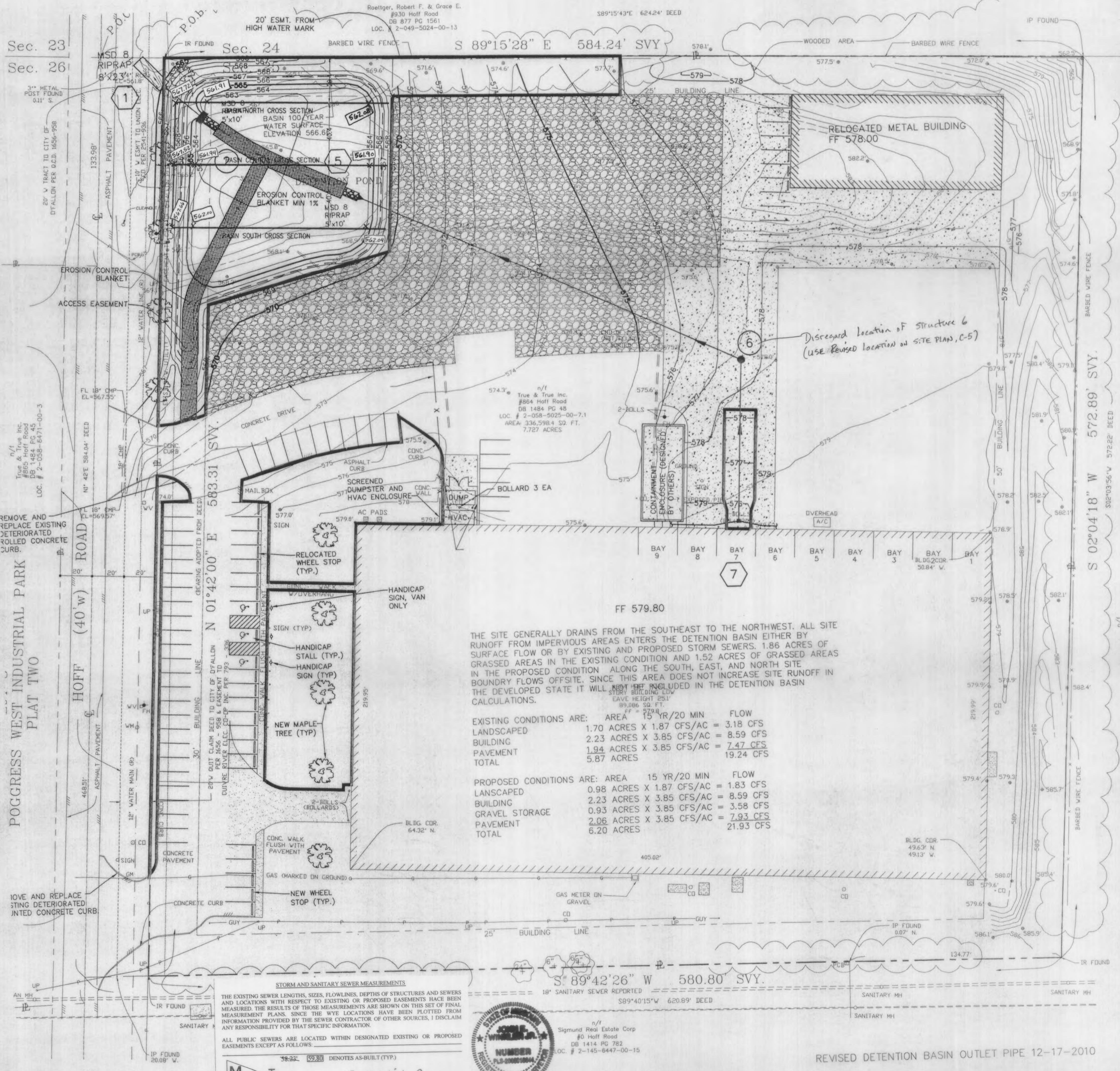
revisions
number date

DETAILS
S&K CONSTRUCTION
SITE IMPROVEMENTS
864 HOFF ROAD
O'FALLON, MISSOURI

date 4-18-2011
job no. 2010003-00
ds. dr. ck.

sheet no.
C-7

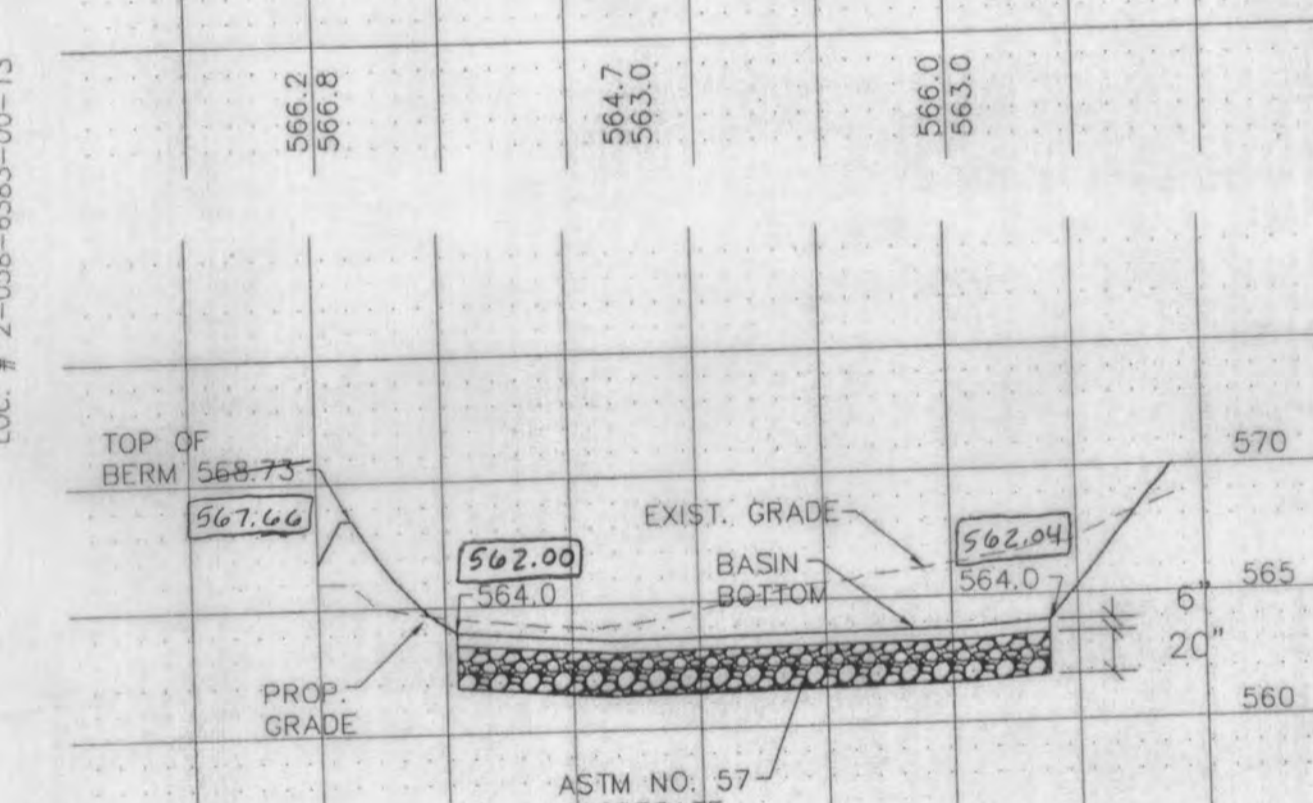
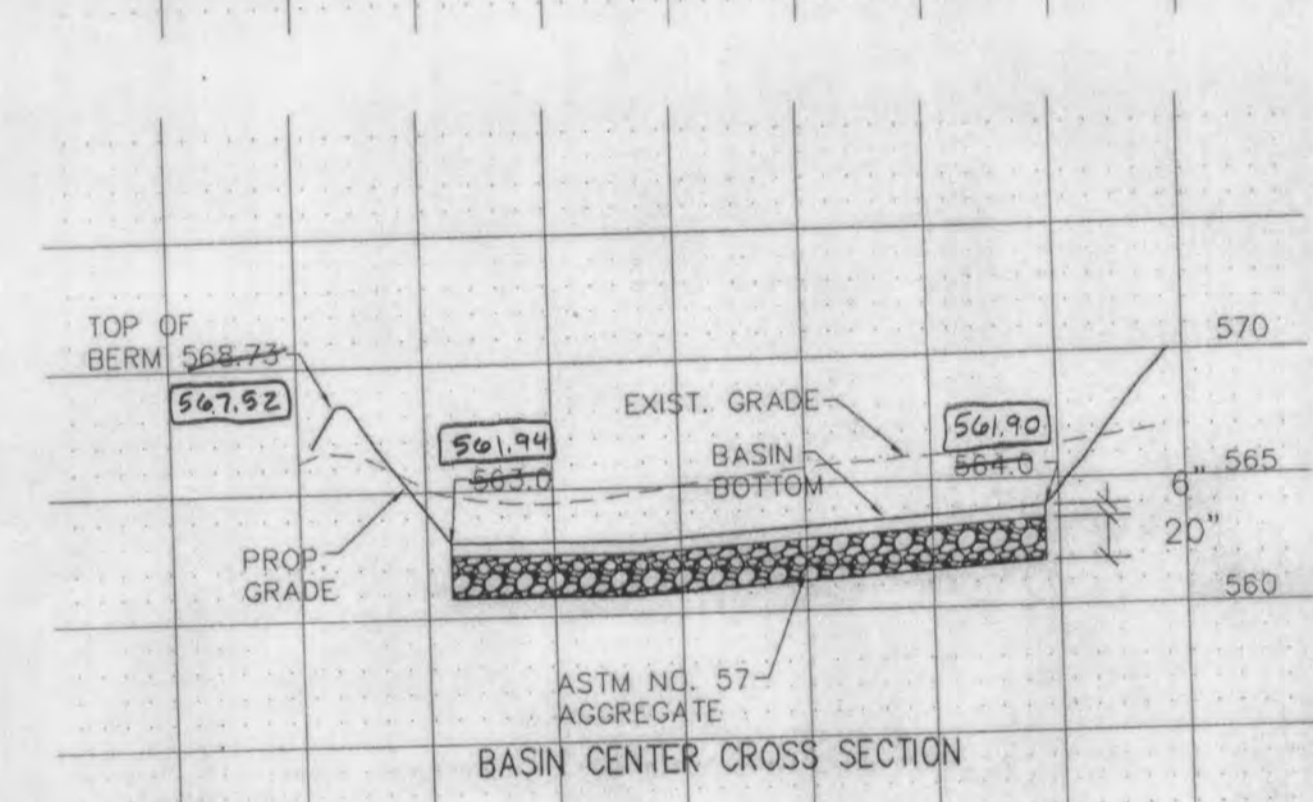
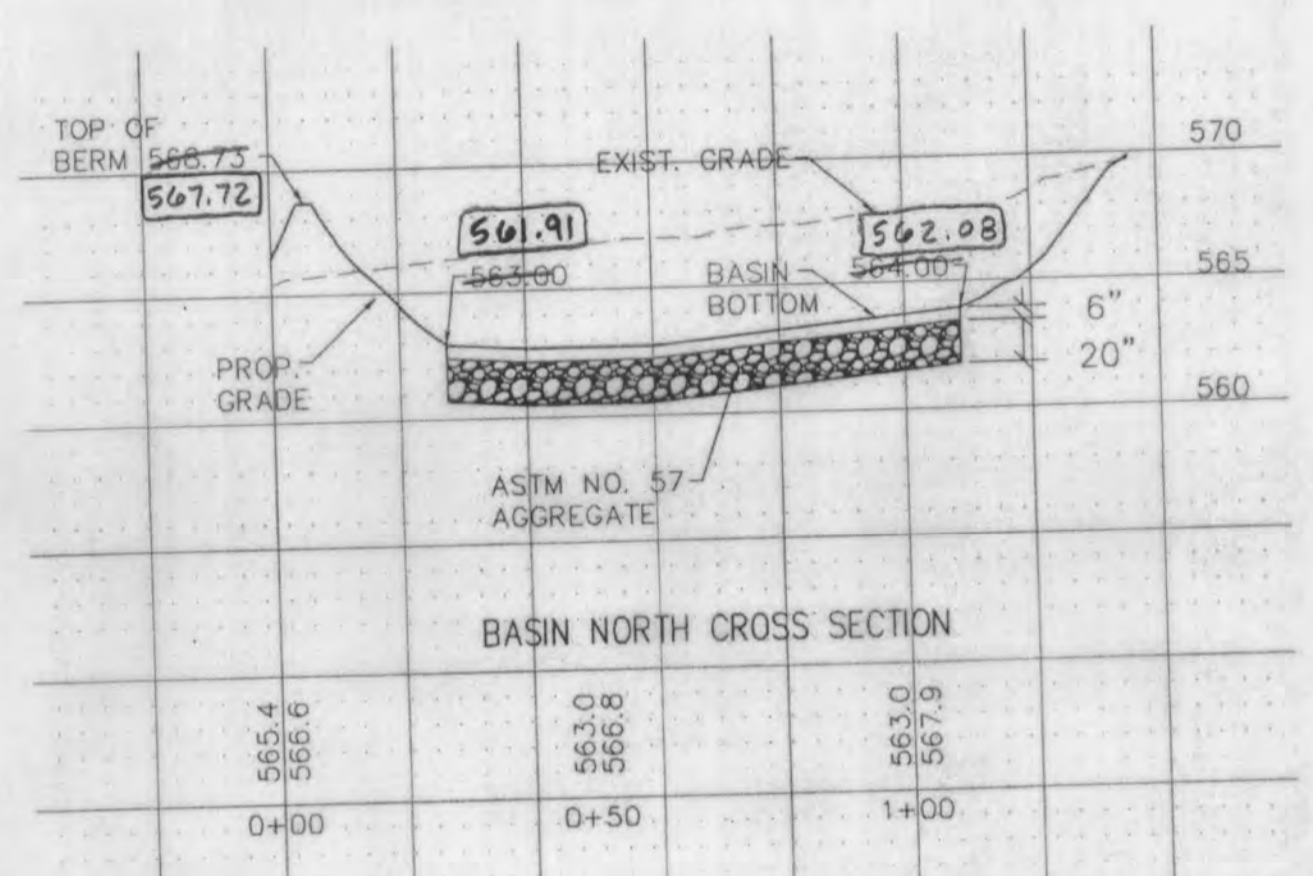
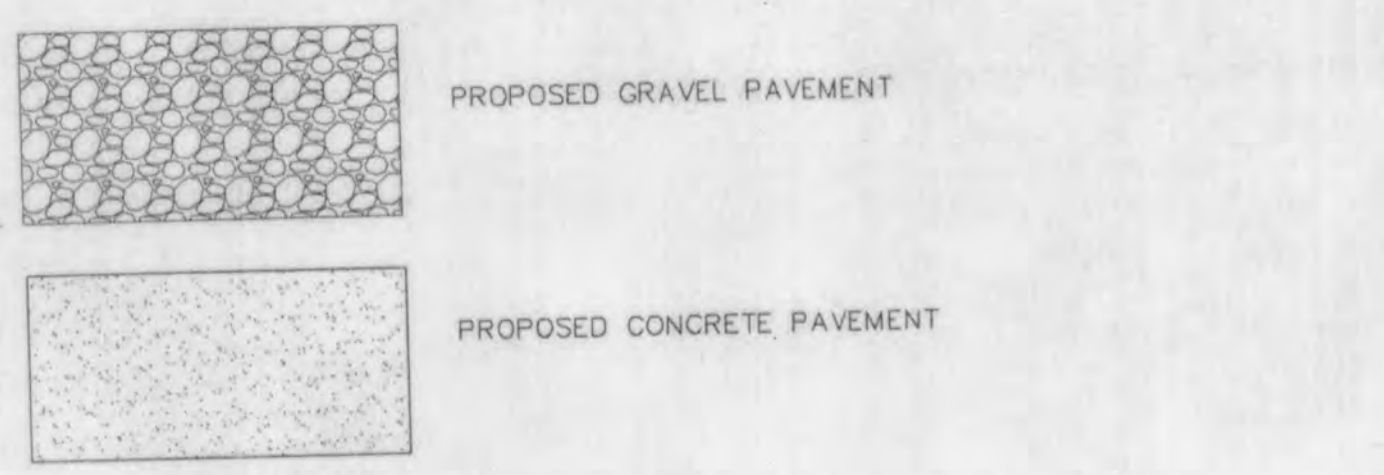
SEWER AS-BUILTS
P & D FILE NUMBER: 0408.02
APPROVAL DATE: JUNE 3, 2010



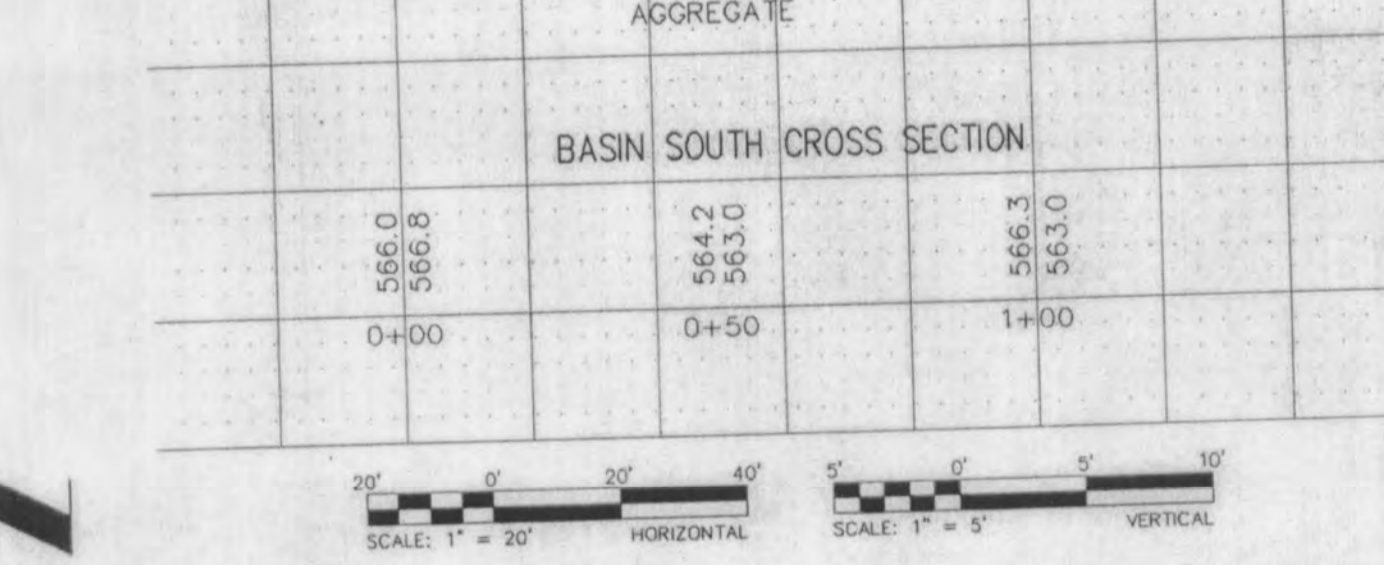
THE SITE GENERALLY DRAINS FROM THE SOUTHEAST TO THE NORTHWEST. ALL SITE RUNOFF FROM IMPERVIOUS AREAS ENTERS THE DETENTION BASIN EITHER BY SURFACE FLOW OR BY EXISTING AND PROPOSED STORM SEWERS. 1.86 ACRES OF GRASSED AREAS IN THE EXISTING CONDITION AND 1.52 ACRES OF GRASSED AREAS IN THE PROPOSED CONDITION ALONG THE SOUTH, EAST, AND NORTH SITE BOUNDARY FLOWS OFFSITE. SINCE THIS AREA DOES NOT INCREASE SITE RUNOFF IN THE DEVELOPED STATE IT WILL NOT BE INCLUDED IN THE DETENTION BASIN CALCULATIONS.

EXISTING CONDITIONS ARE:	AREA	15 YR/20 MIN FLOW
LANDSCAPED	1.70 ACRES	$1.70 \times 3.85 = 6.54$ CFS
BUILDING	2.23 ACRES	$2.23 \times 3.85 = 8.59$ CFS
PAVEMENT	1.94 ACRES	$1.94 \times 3.85 = 7.47$ CFS
TOTAL	5.87 ACRES	22.60 CFS

PROPOSED CONDITIONS ARE:	AREA	15 YR/20 MIN FLOW
LANDSCAPED	0.98 ACRES	$0.98 \times 3.85 = 3.77$ CFS
BUILDING	2.23 ACRES	$2.23 \times 3.85 = 8.59$ CFS
GRAVEL STORAGE	0.93 ACRES	$0.93 \times 3.85 = 3.58$ CFS
PAVEMENT	2.06 ACRES	$2.06 \times 3.85 = 7.93$ CFS
TOTAL	6.20 ACRES	23.87 CFS



Sigmund Real Estate Corp
 8855
 DB 1215 PG 347
 LOC. # 2-058-0383-00-13



CITY OF FALLON
 COMMUNITY DEVELOPMENT DEPARTMENT
 ACCEPTED FOR CONSTRUCTION
 BY: [Signature] DATE: 1/31/11
 PROFESSIONAL ENGINEER'S SEAL
 INDICATES RESPONSIBILITY FOR DESIGN



DATE: 1-31-11
 12-31-12
 MARK DAVIS, CIVIL LIC # 024250
 The State of Missouri Department of Professional Regulation DMA Inc.
 License No. Engineer: 00103
 License No. Architect: 000620
 License No. Survey: 000336

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PM/CM Services
 Environmental
 Engineering
 Architecture
 Surveying
 DAVID MASON & ASSOCIATES
 8304 Esters Blvd., Suite 850
 Irving, Texas 75063
 (972) 697-3400

revisions	number	date

POST DEVELOPMENT
 DRAINAGE AREA MAP
 SAK CONSTRUCTION
 SITE IMPROVEMENTS
 864 HOFF ROAD
 O'FALLON, MISSOURI

date	1-19-2011	
job no.	2010003-00	
ds.	dr.	ck.
sheet no.		

P & D FILE NUMBER: 0408.02
 APPROVAL DATE: JUNE 3, 2010

C-12



154 Royalwood Place Ct.
 Lake St. Louis, MO, 63367
 Ph: 314-432-5400 Fax: 636-265-2128

John E. Wankler Jr. PLS-2000018644
 Order No. 201101 Date: 3-24-13



3-26-13