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CIVIL SUBMITTAL

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HT Solutions

LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

FINAL DEVELOPMENT PLAN

BUILDING EXPANSION

UTILITIES

City of Lee's Summit
 Department of Public Works
 174 S. Summit, Mo.
 Lee's Summit, Mo.
 816-499-1800

KCPD
 401 SE Bailey Road
 Lee's Summit, Mo. 64081
 816-341-4320

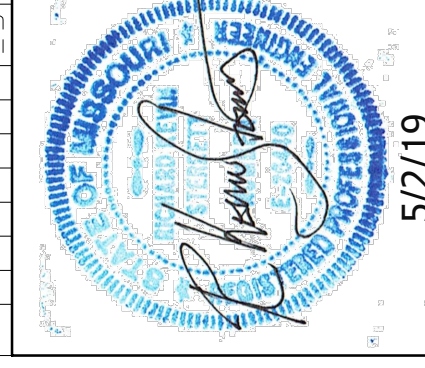
Robbie Sulsherry
 (Administrative Offices)
 3025 SE Clover Road
 Lee's Summit, MO
 816-969-2266

A/E/T
 City of Lee's Summit
 500 E. 8th Street
 Kansas City, MO. 64106
 816-273-2721

Comcast
 New Construction Hotline
 866-771-2281

Missouri One Call
 Missouri One Call
 1-800-344-7483

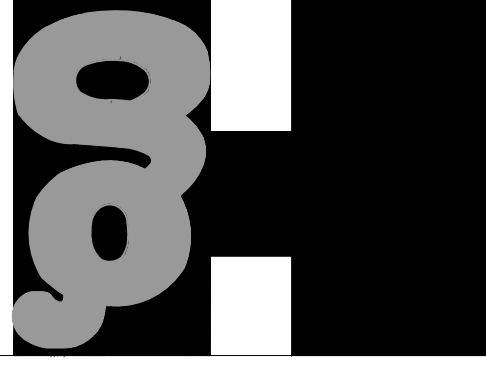
NO.	BY	DATE	REVISION
1	EDH	1/30/19	Revised per city comments dated 1/30/19
2	EDH	4/24/19	Revised per city comments dated 4/9/19
3	EDH	5/2/19	Revised per Mechanical engineers revisions
	RKS		



5/2/19

Consult
 Inc engineers
 planners

CORPORATE LICENSE NO. E201005873
 R. KEVIN STERRETT, NO. E-26440



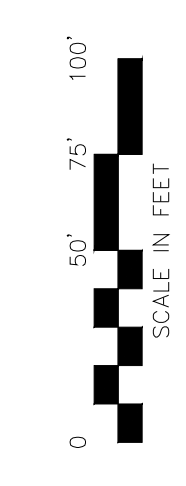
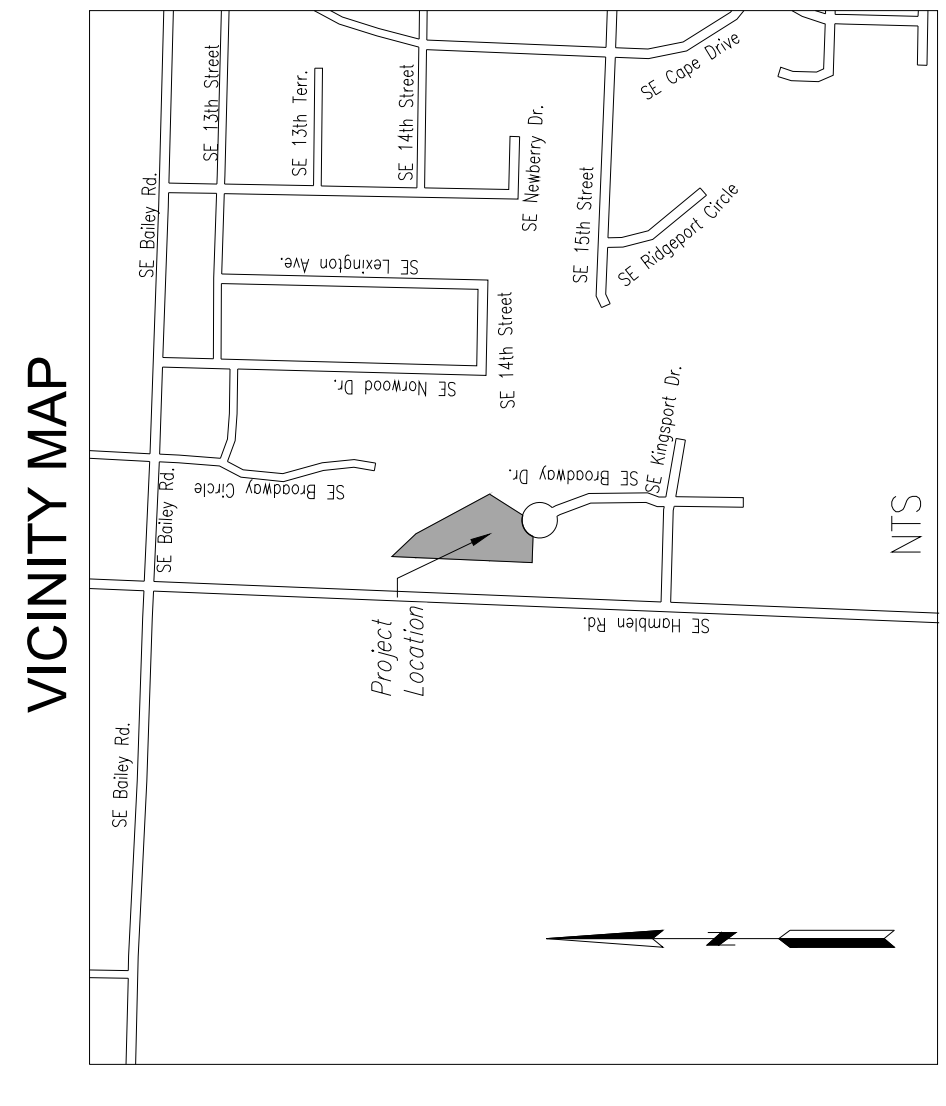
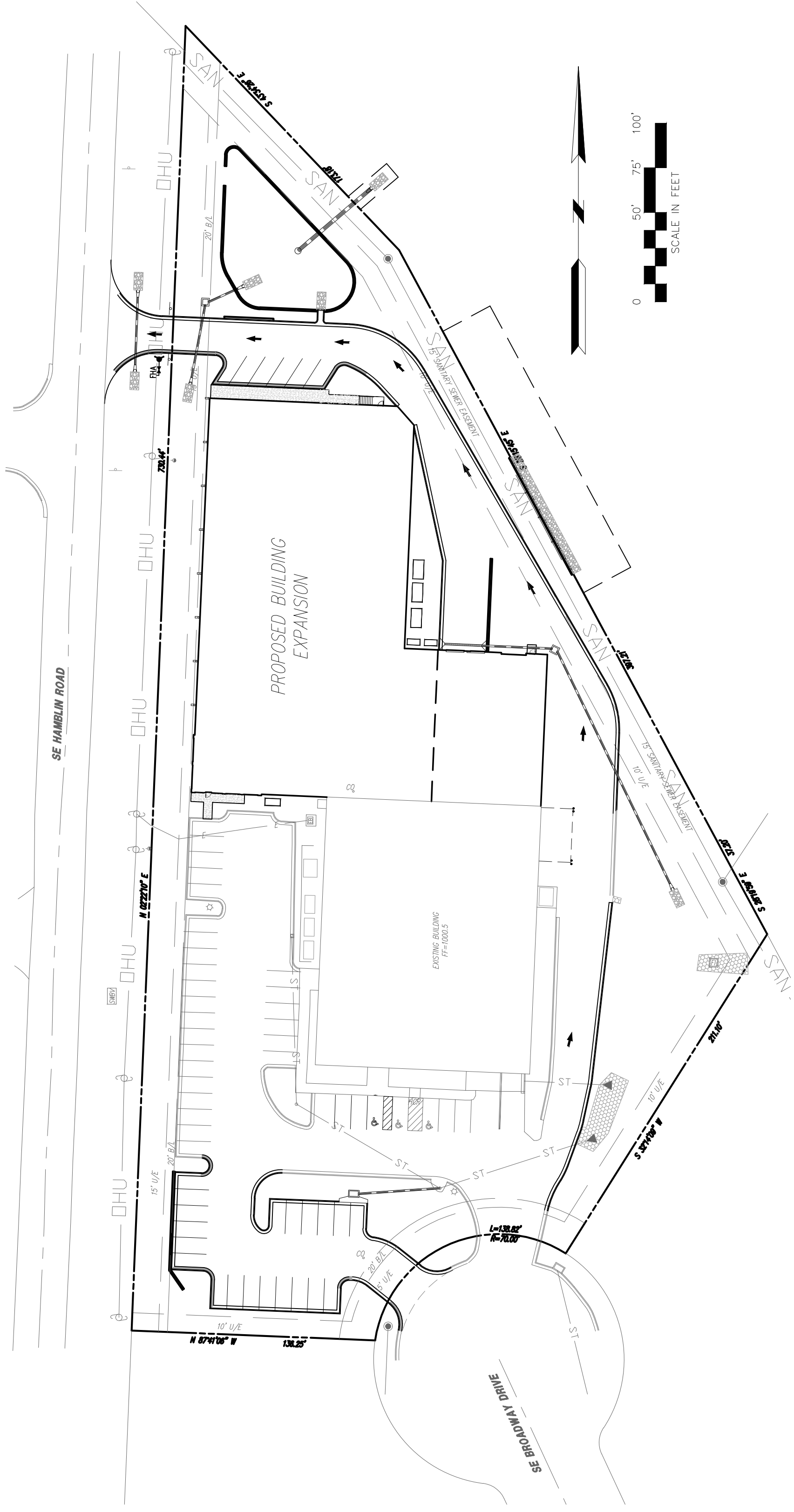
COVER SHEET

HIGH TECH SOLUTIONS

LEES SUMMIT - JACKSON COUNTY - MISSOURI

DATE	OCTOBER 12, 2018
DRAWING NO.	1806.3
PROJECT NO.	181508
DATE	1806.3

SHEET 1 OF 11



GENERAL NOTES:

1. The underground utilities shown herein have been plotted from available information and do not necessarily reflect the actual existence, or nonexistence, size, type, number, or locations of these or other utilities. The contractor shall be responsible for verifying the actual locations of all underground utilities, shown or not shown, and all utilities shall be located in the field prior to any grading, excavation, or construction of any kind.
2. UNDERGROUND FACILITY SAFETY AND DAMAGE PREVENTION ACT, Chapter 319, RSMO. Gas, Water, and other utilities shall not conflict with the depth or horizontal location of existing and proposed sanitary and storm sewers, including building laterals. Prior to submittal of construction bids, the Contractor shall be required to visit the site to verify existing conditions and proposed improvements.
3. The Contractor shall notify the Engineer immediately of any discrepancies in the plans.
4. All work shall be in accordance with the Missouri Statewide Standard Specifications for Highway Construction, 2017 Edition, unless otherwise noted.
5. There are no oil or gas wells located on the subject property as of November 1, 2018 as shown by the Missouri Geological Survey GEOSTRAT (Geosciences Technical Resource Assessment Tool).

PLANS PREPARED FOR

HT Solutions
 1440 SE BROADWAY DRIVE
 LEE'S SUMMIT, MO 64081
 CONTACT - DAN PHILLIPS
 816-554-2520

PLANS PREPARED BY

HG CONSULT
 11010 HASKELL ST. #210,
 KANSAS CITY, KS 66109
 CONTACT: KEVIN STERRETT
 816-703-7098

PROJECT BENCHMARK:

#1 Top of Sanitary Manhole lid at south
 end of SE 15th Street
 N. 982422.0310
 E. 2829072.5430
 TOP ELEV. 1001.50

DEMOLITION PLAN

g Consult Inc engineers
 CORPORATE LICENSE NO. E2010005873
 R. KEVIN STERRETT, NO. E-26440
 5/2/19

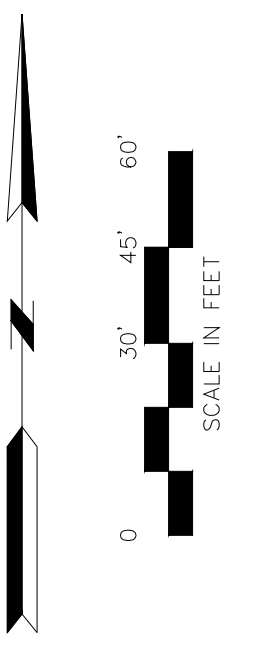


NO.	BY	DATE	REVISION
1	EDH	1/30/19	Revised per city comments dated 1/30/19
1	EDH	4/8/19	Revised per city comments dated 4/8/19
1	RKS		
1	OK/APP		

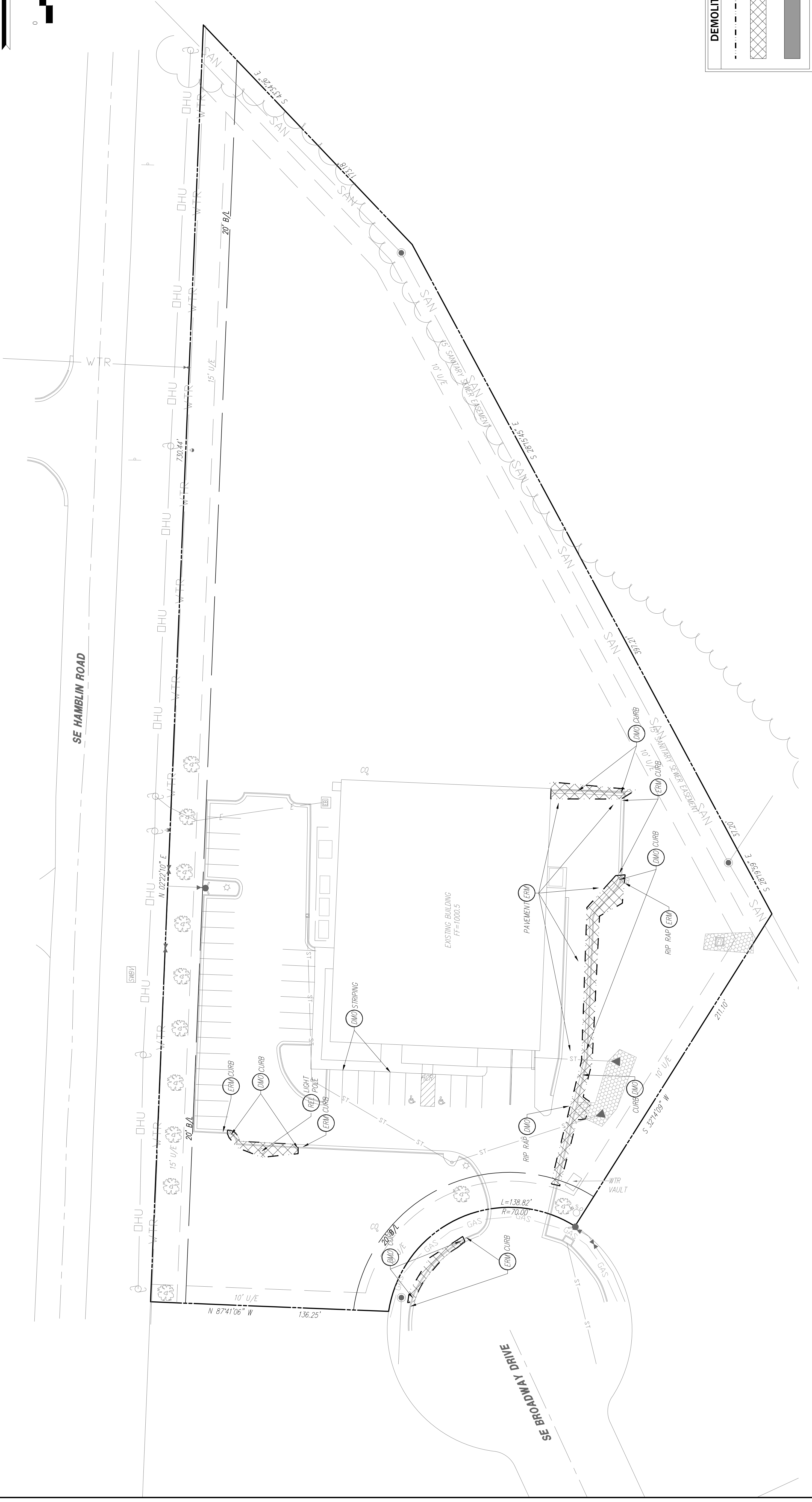
DEMOLITION GENERAL NOTES:
 CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF THE EXISTING STRUCTURES, RELATED UTILITIES, PAVING, UNDERGROUND STORAGE TANKS AND ANY OTHER EXISTING IMPROVEMENTS AS NOTED. SEE THE OWNER'S/DEVELOPER'S SITE WORK SPECIFICATIONS. CONTRACTOR IS TO REMOVE AND DISPOSE OF ALL DEBRIS, RUBBISH AND OTHER MATERIALS RESULTING FROM PREVIOUS AND CURRENT DEMOLITION OPERATIONS IN ACCORDANCE WITH ALL LOCAL, STATE AND/OR FEDERAL REGULATIONS GOVERNING SUCH OPERATIONS.
 THE OWNER, CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES DURING THE CONSTRUCTION PHASES OF THIS PROJECT. THE CONTRACTOR SHALL BE HELD SOLELY RESPONSIBLE FOR ANY DAMAGES TO THE ADJACENT PROPERTIES OCCURRING DURING THE CONSTRUCTION PHASES OF THIS PROJECT.
 THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELED COMPANY AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES AS SHOWN ON THESE PLANS. ANY UTILITIES SHOWN ON THE PLANS, WHETHER SHOWN OR NOT SHOWN AT AN ADDITIONAL COST TO THE OWNER.
 CONTRACTOR SHALL INSPECT AND TEST AS NECESSARY FOR ASBESTOS MATERIALS. REMOVAL OF ASBESTOS MATERIALS MUST MEET ALL LOCAL GOVERNING REQUIREMENTS.

DEMO NOTES
 (XXX) Items listed by the following symbols are shown on this sheet.
 (DEM) EXISTING TO BE DEMOLISHED
 (ERM) EXISTING TO REMAIN
 (REL) EXISTING TO BE RELOCATED

DEMOLITION PROPOSED FEATURES
 --- LIMITS OF DEMOLITION
 ALL TREES, STRUCTURES, AND UTILITIES WITHIN THE HATCHED AREA SHALL BE DEMOLISHED. ANYTHING LOCATED OUTSIDE THE HATCHED AREAS ARE TO REMAIN UNLESS OTHERWISE SPECIFIED.
 FULL DEPTH PAVEMENT REMOVAL



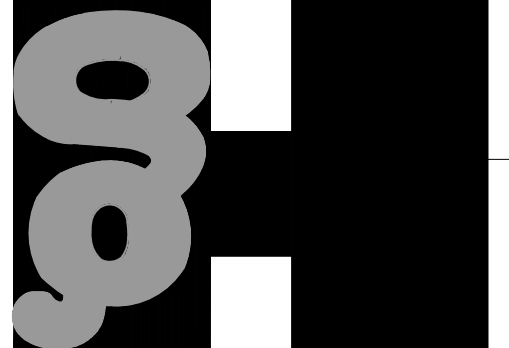
811
 Know what's below.
 Call before you dig.



NO.	BY	DATE	REVISION
1	EDH	1/30/19	Revised per city comments dated 1/30/19
2	EDH	4/24/19	Revised per city comments dated 4/24/19
3	RKS		



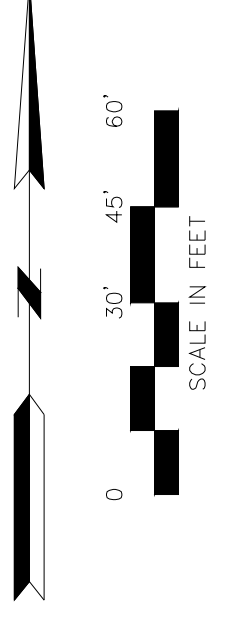
811
Consult Inc
 ENGINEERS
 5/2/19
 CORPORATE LICENSE NO. E2010005873
 R. KEVIN STERRETT, NO. E-26443



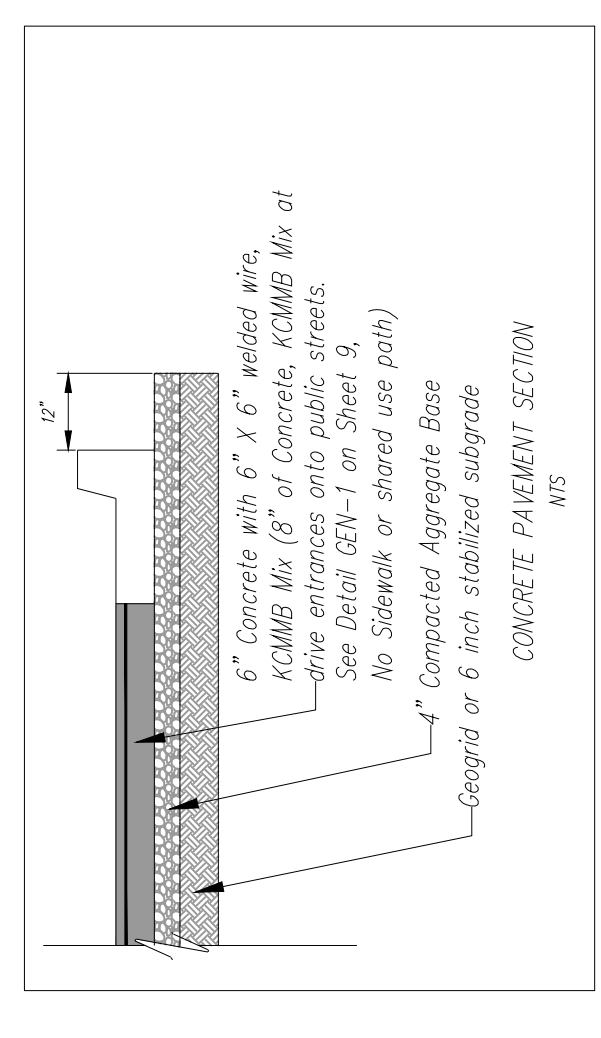
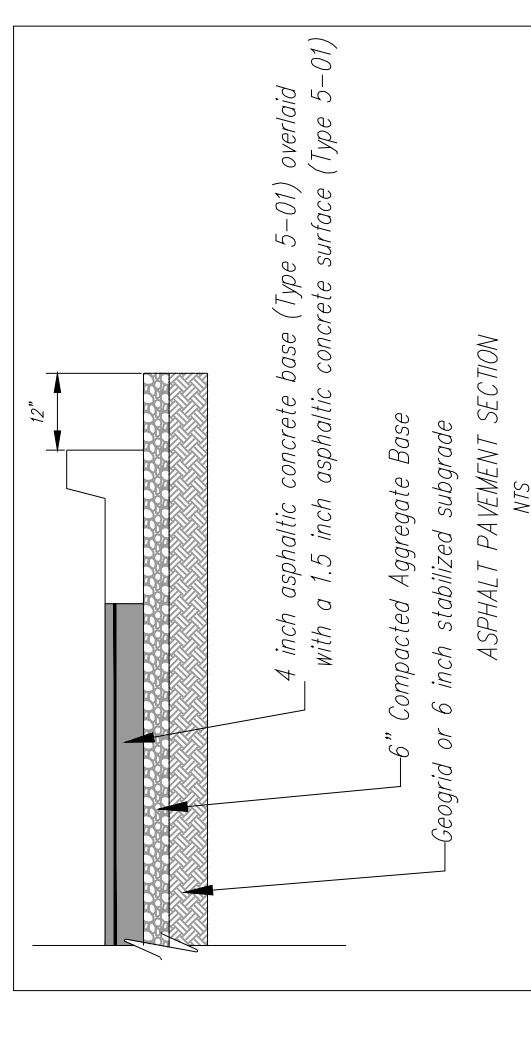
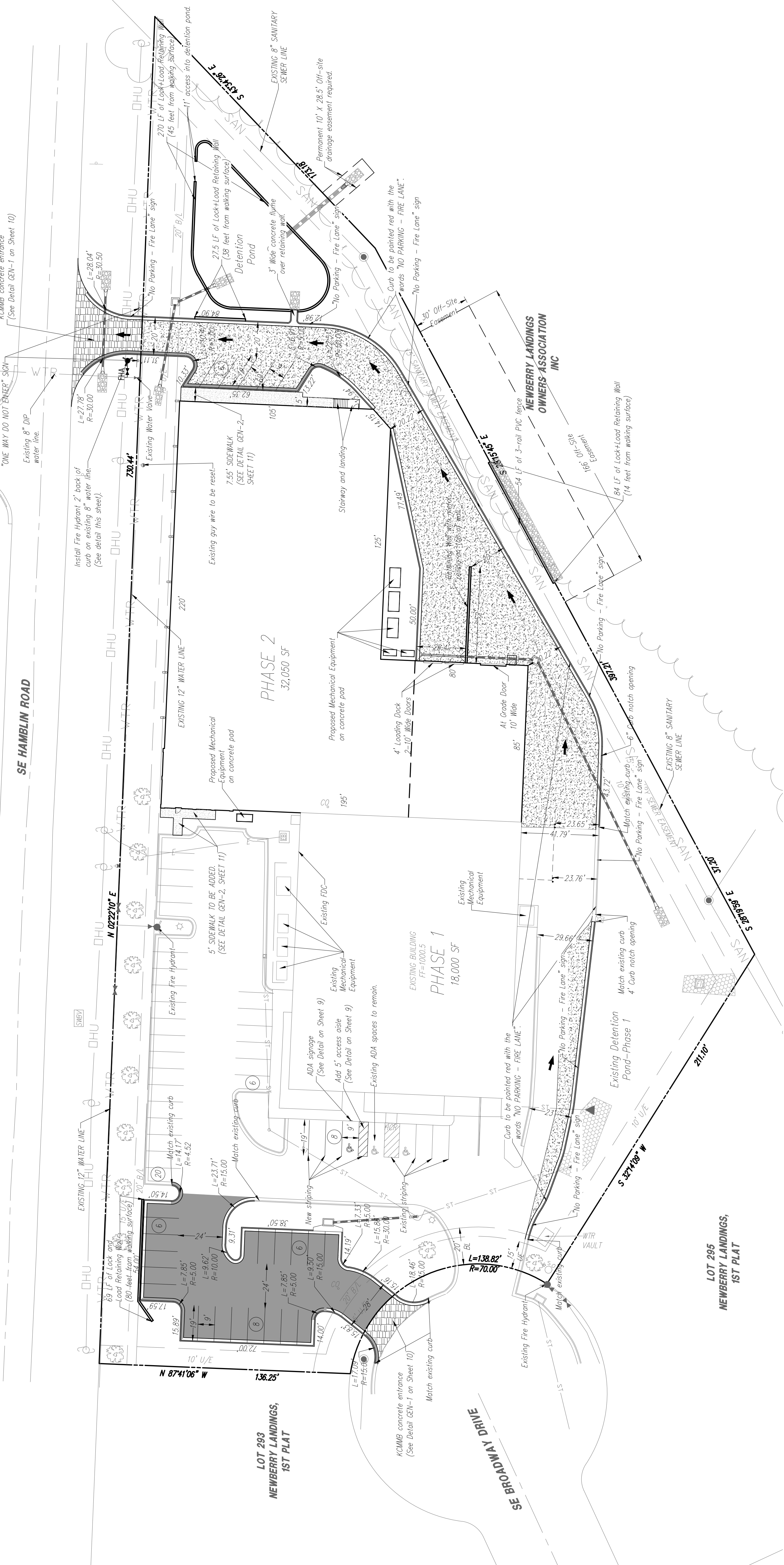
LEES SUMMIT - JACKSON COUNTY - MISSOURI
 HIGH TECH SOLUTIONS
 OVERALL SITE PLAN

DATE	10/08/18
DATE	10/08/18
DATE	10/08/18

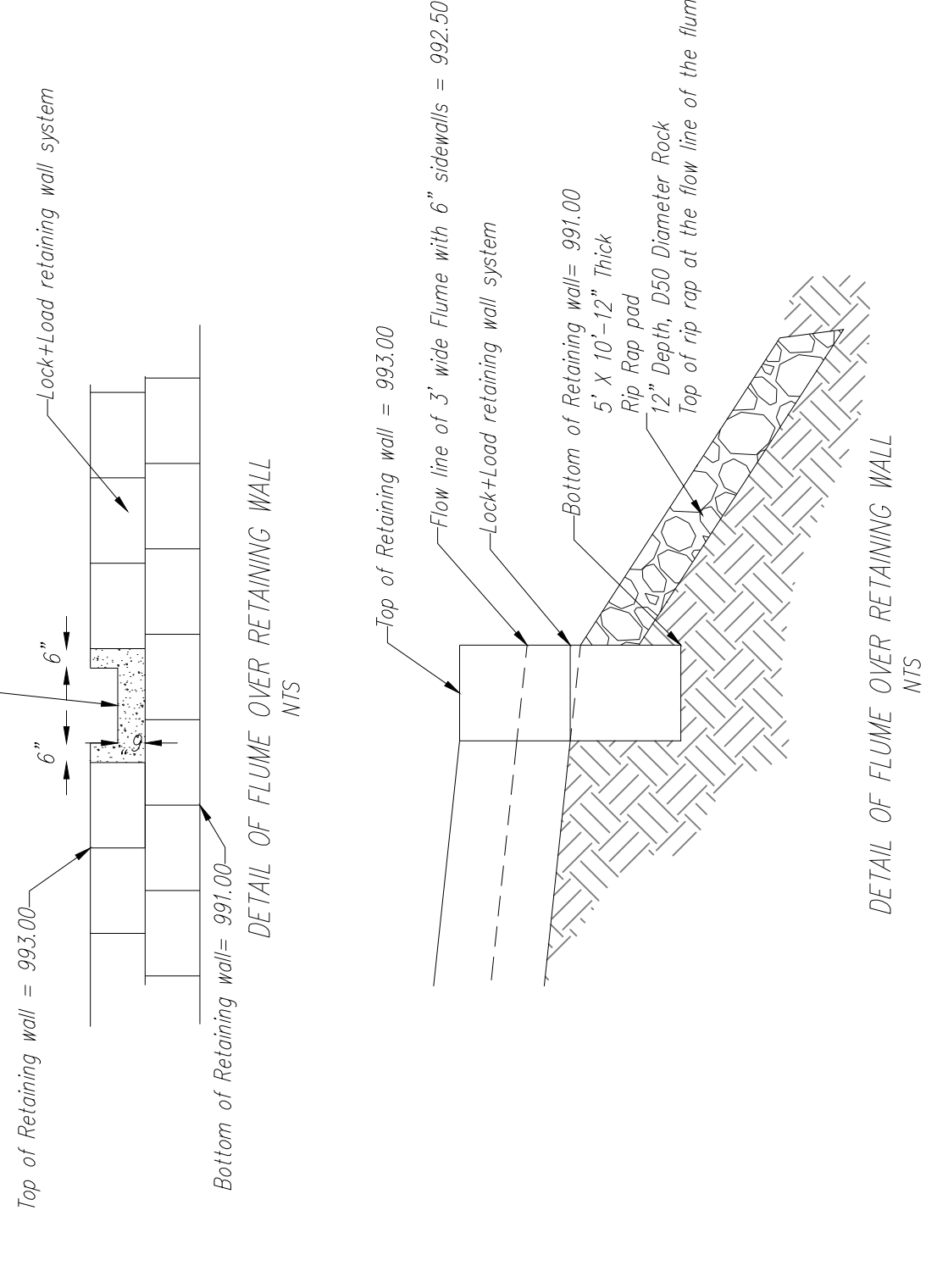
SHEET 3 OF 11



Know what's below.
 Call before you dig.

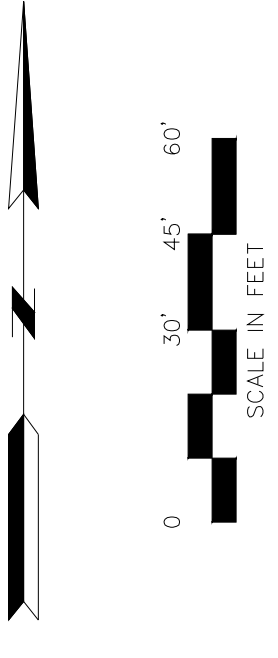


EXISTING BUILDING 1 - PHASE 1			
Building 1	Office	Mfg	Warehouse
Main Floor	3,670	10,800	3,530
Mezzanine	1,980	2,340	4,320
Total SF	5,650	10,800	5,870
PROPOSED BUILDING EXPANSION - PHASE 2			
Building 2	Office	Mfg	Warehouse
Main Floor	900	25,300	5,800
Mezzanine	900	25,300	900
Total SF	1,800	25,300	5,900



- SITE INFORMATION:**
 Property Description: Lot 292, Newberry Landings-1st Plat
 Site Address: 1440 SE Broadway Dr.
 Zoning: Planned Industrial
 Lot Area: 156,457 SF (3.59 AC)
 Lot Area: 51,000 SF
 Impervious Coverage: 103,172 SF, 66%
- Parking Space Requirements:**
 Warehouse: 1 space/1000 SF = 12 spaces
 Manufacturing: 2.5 spaces/1000 SF = 91 spaces
 Total parking spaces required = 133 spaces
 See letter from owner to address parking needs.
 ADA Spaces Required/Provided: 3/3
 Standard Space Size: 9'x12'
 Planned Use: Manufacturing
 Anticipated Completion: Spring 2019
 Watershed - West tributary to Prairie Lee Lake (East Fork of Little Blue River)
- 6" Concrete pavement area (See Detail, this sheet)
 - 8" Concrete pavement area (See Detail, this sheet)
 - Asphalt pavement area (See Detail, this sheet)
 - Sidewalk
 - Tip out curb and gutter (See Detail GEN-4, Sheet 9)
 - Retaining wall (See Lock-Load retaining wall submittal)

- NOTES:**
- Construction and materials to conform to the city and the specifications and details per the Kansas City Metro Chapter APWA. It is advisable that the contractor become familiar with this document in the event that there is a discrepancy between this and the approved plan and the Manual. Advise the design engineer of any discrepancy prior to bidding or working on this project.
 - Silt fence shall be installed at the perimeter of all disturbed areas within the site during construction for (816) 969-1800.
 - Contractor shall contact the Public Works Inspections 48 hours prior to commencement of work at (816) 969-1800.
 - Contractor to locate and relocate any existing utilities that may conflict with construction as necessary.
 - All curb shall be CC-1 or pitgrade with the sidewalk.
 - Space trap parking sign, 5' above finish grade, shall be placed at the head of the designated parking space.
 - There shall be two way traffic movement.
 - Perimeter parking area dimensions shown are at the front of curb.
 - All mechanical equipment shall be screened to 100% opacity and match building material (See Architectural Submittal). Height of screen shall equal the height of mechanical equipment that is being screened.
 - See architectural submittal for all building dimensions, monument signs and lighting details.
 - This lot is not in a flood plain per FIRM Panel 438 of 625, Map No. 2009004386, dated Jan. 20, 2017.
 - ADA accessible ramp to have detectable surface on public handicap ramps only. Detectable surfaces do not include ramps to building entrances.
 - Building coordinates are printed to or measured at the outside face of building foundation corners. Contractor shall confirm building dimensions with structural drawings.
 - Other coordinates are printed to or measured from the front of curb, back of wall or property corner location. Contractor shall estimate building entrances, egress, walkways and door locations with architectural and structural drawings.
 - See architectural/structural/mechanical/electrical drawings for miscellaneous site equipment and pads.
 - Curb to be installed at proposed drives by saw cutting a clean straight edge of existing asphalt and forming curb to edge of gutter existing elevation.



811
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 Call before you dig.

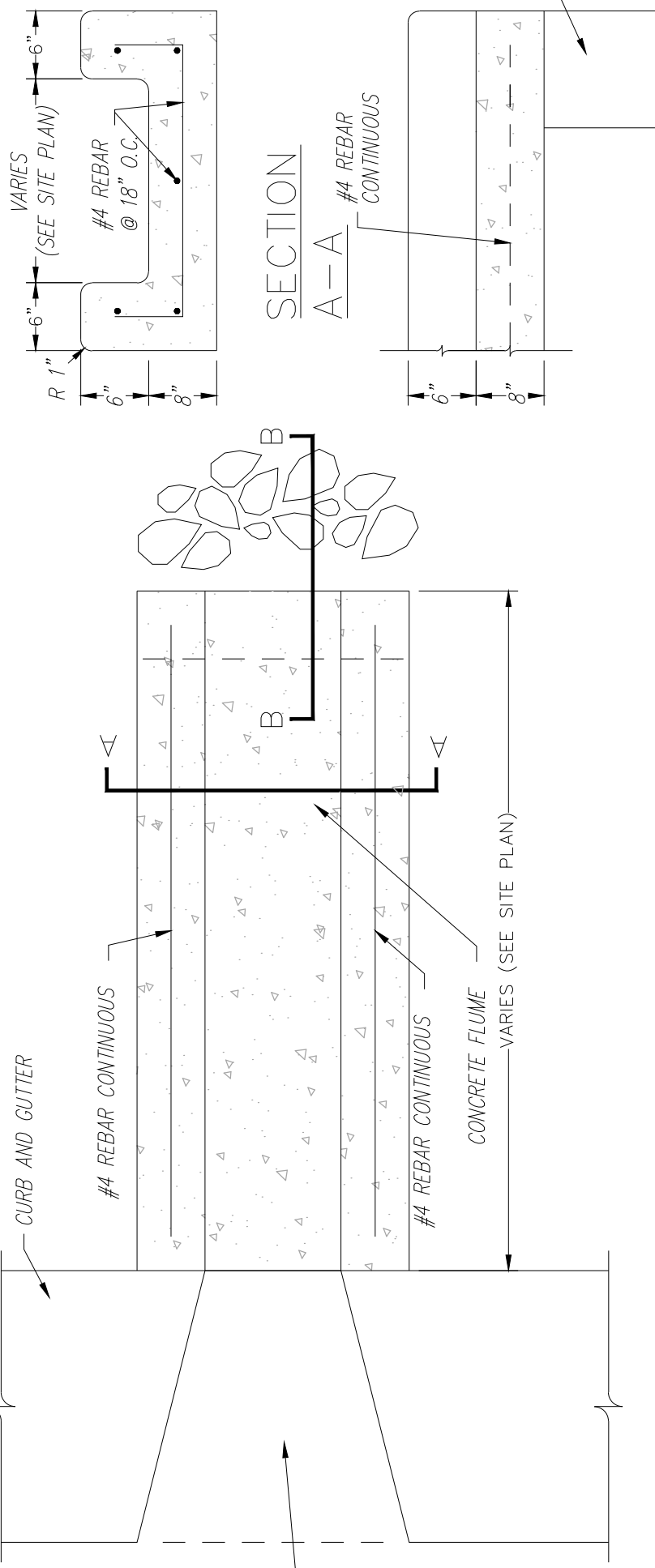
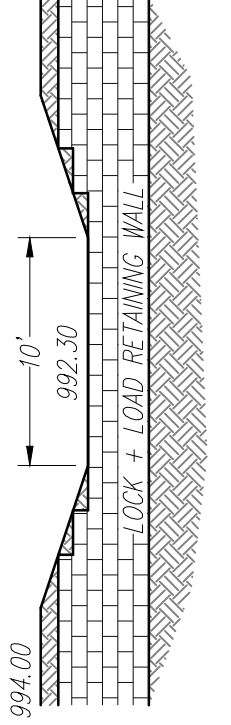
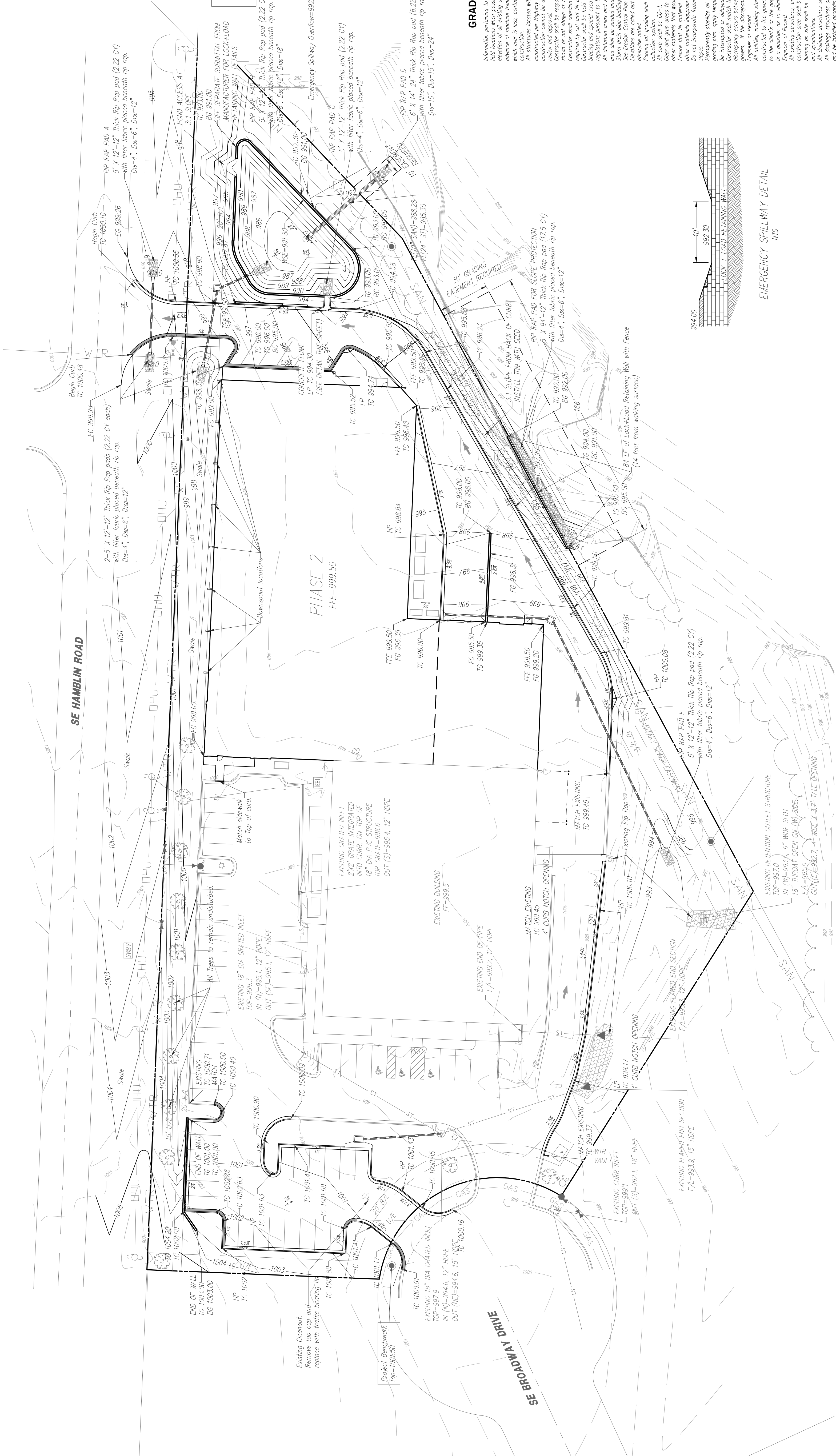
Deflection Pond and
 5' x 12'-12" Thick Rip Rap pad (2.22 CY)
 with filter fabric placed beneath rip rap.
 Dis=4", Dbase=6", Dbase=12"

GRADING AND DRAINAGE NOTES:
 Information pertaining to under ground utilities was obtained from available records and field locations when possible, but the contractor must determine the exact location and depth of all utilities before excavation. If discrepancies are less than those specified on these plans or 24" which ever is less, contact the Engineer and the Owner/Downer prior to proceeding with construction.
 Located utility Right Of Way or otherwise noted on these plans shall be protected by a concrete curb and sidewalk. If structures are not protected or construction cannot be achieved contractor shall submit shop drawing to the Engineer for review and approval.
 Contractor shall coordinate with utility companies on existing utility lines as shown or not shown on additional cost to the owner.
 Contractor shall be held responsible for the design and implementation of sheeting, shoring, bracing and special excavation measures required to meet OSHA, Federal, State and Local regulations pursuant to the installation of the work indicated on these drawings.
 The Engineer shall not be responsible for the design of any special excavation measures. The area shall be seeded and watered with heavy grass growth has been established.
 Storm drain pipe bedding shall be installed per open, section 2100.
 The Engineer shall not be responsible for the design of any special excavation measures. The area shall be seeded and watered with heavy grass growth has been established.
 Parking lot grading shall be performed to route storm water as directed to the storm drain.
 All curb shall be CC-1.
 Clear and grub areas to be filled, remove trees, vegetation, roots, or other debris, and ensure that the material is free of rocks, stumps, logs, stumps, building debris, and other materials inappropriate for constructing stable fill.
 Do not incorporate frozen material or soil, muck, or highly compressible materials into fill.
 Permanently stabilize all graded areas after final grading is completed on each area of the grading plan apply temporary stabilization measures on all graded areas when work is to be interrupted or delayed (see Erosion Control Plan).
 Discrepancy occurs between proposed grades and proposed structure logs, the grading shall govern, if the discrepancy is more than 4 inches the contractor shall contact the Engineer.
 All utilities, including storm sewer, shown within public easements or right of ways shall be constructed to the governing agency's specifications. All other utilities shall be constructed to the client's or the governing agency's specifications, whichever is more stringent, if there are conflicting specifications, the contractor shall contact the Engineer for clarification.
 All existing structures, unless otherwise noted to remain, all fencing, trees, & etc., within construction area shall be removed & disposed of off site, unless otherwise noted, any structures that shall be subject to local ordinances and/or the owner/downer's standards and specifications.
 All drainage structures shall be pre-cast.
 All drainage structures and storm sewer pipes shall meet heavy duty traffic (H20) loading.
 Contractor shall notify all utility companies having underground utilities on site or in right-of-way prior to excavation. Contractor shall contact utility locating company (S11E S11E CUI system) and locate all utilities prior to grading work.
 After permits have been obtained and Erosion Control measures installed, the contractor shall grade building pad & slopes to 0' to -1/2" of subgrade.
 *See Storm Water Report for Rip Rap Sizing Calculations.

Rip Rap Sizing Chart

Rip Rap Location	Pipe Size (in.)	Depth (ft.)	Width (ft.)	Length (ft.)	Specific Weight of Rock (pcf)	Rock Weight	Velocity (FPS)	D15 (in.)	D50 (in.) Avg.	D100 (in.)	Note
A	15	12	4 (Use 5' min.)	12	165	165	6.2	4	5 (Use 6 as min.)	12	
B	15	12	4 (Use 5' min.)	12	165	165	9.6	8	12	18	
C	Flume (0.75x3)	12	4 (Use 5' min.)	12	165	165	1.8	4	6	12	1
D	8	24	4 (Use 6' min.)	12	165	165	10.6	10	15	24	
E	12	12	4 (Use 6' min.)	12	165	165	4.2				1

Notes:
 1. Rip Rap is not normally required for velocity below 5 fps, provided for erosion purposes only



CONCRETE FLUME
 MTS

PROJECT BENCHMARK:
 #1 Top of Sanitary Manhole lid at south side of site on SE Broadway cut-de-sac. IN. 38920216430. TOP ELEV. 1001.50

- TC Top of Curb
- FC Finish Grade
- C Curvature Elevation
- HP High Point
- LP Low Point
- FEE Finish Floor Elevation
- TG Top of Grade (Retaining Wall)
- BC Bottom of Grade (Retaining Wall)
- FES Flared End Section
- WSE Water Surface Elevation

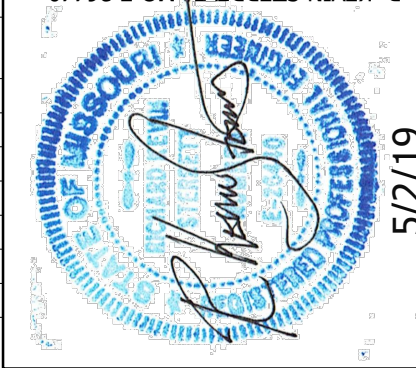
- 1" Finish Grade Contours
- 5' Finish Grade Contours
- Finish Grade slope
- Retaining wall
- 1" Top curb and gutter

LEES SUMMIT - JACKSON COUNTY - MISSOURI
HIGH TECH SOLUTIONS
STORM SEWER PLAN
LINE 1, LINE 2, LINE 3, LINE 4 AND LINE 5

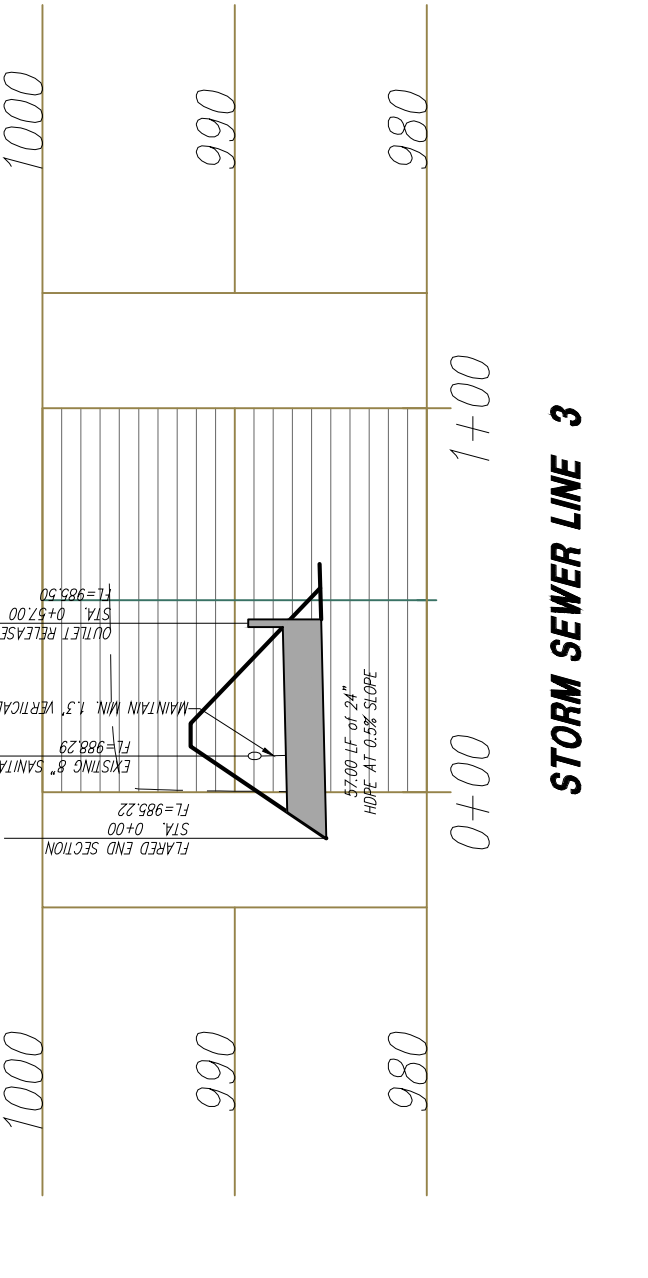
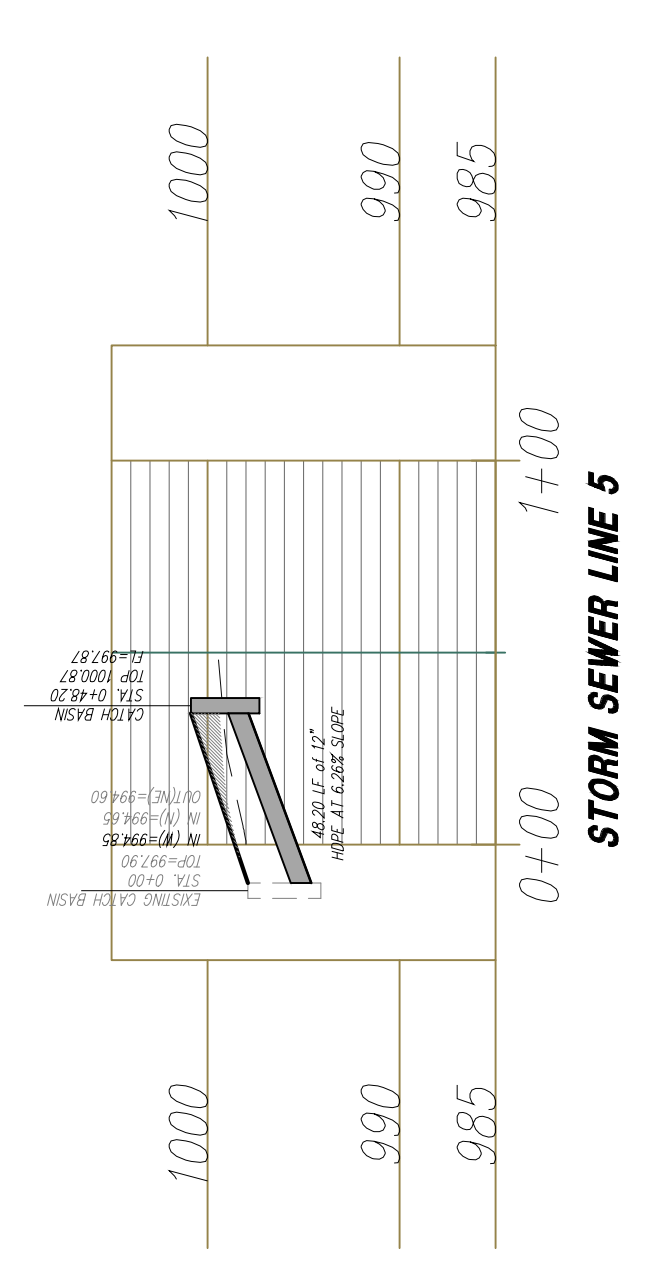
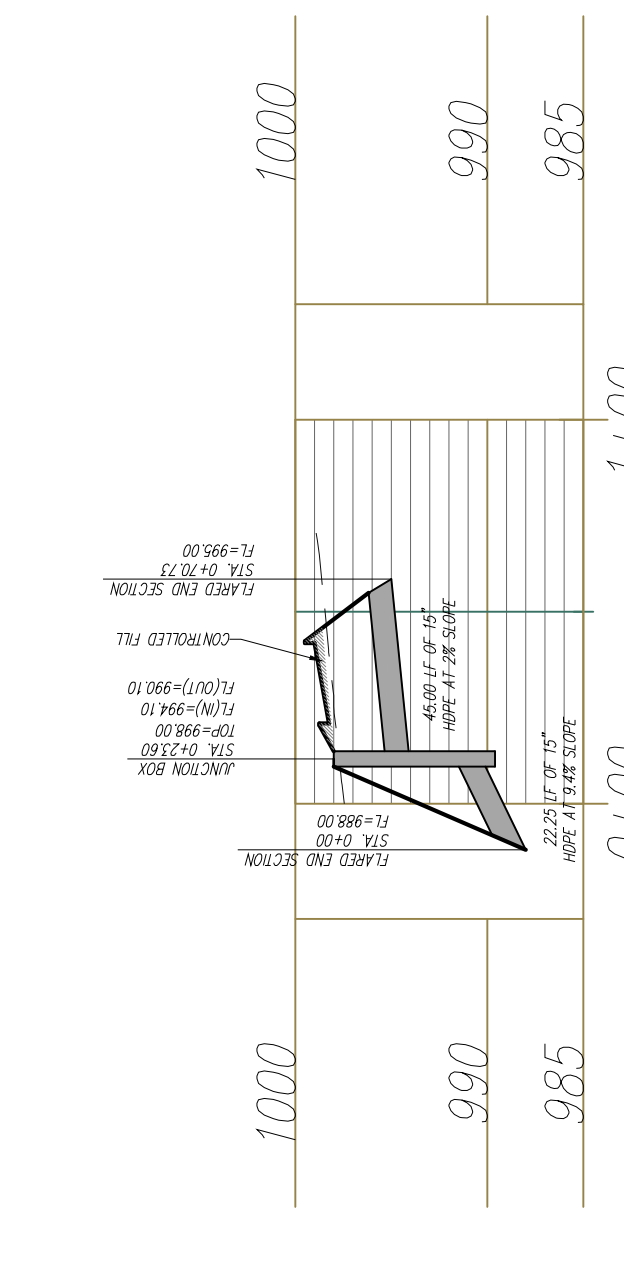
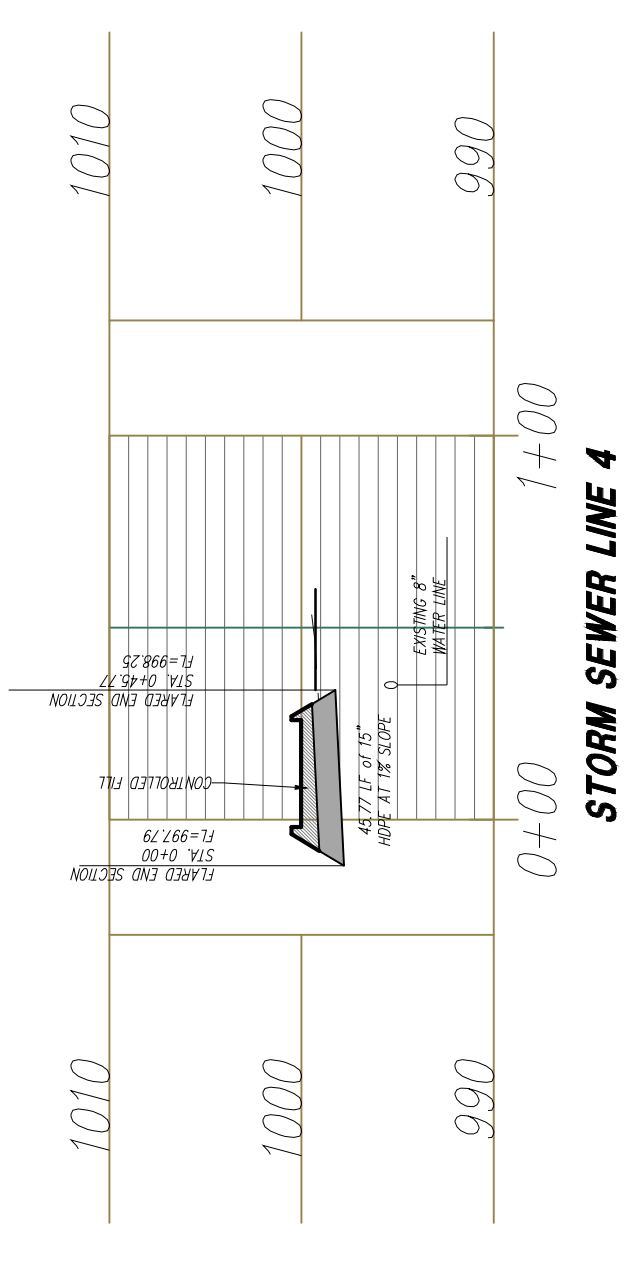
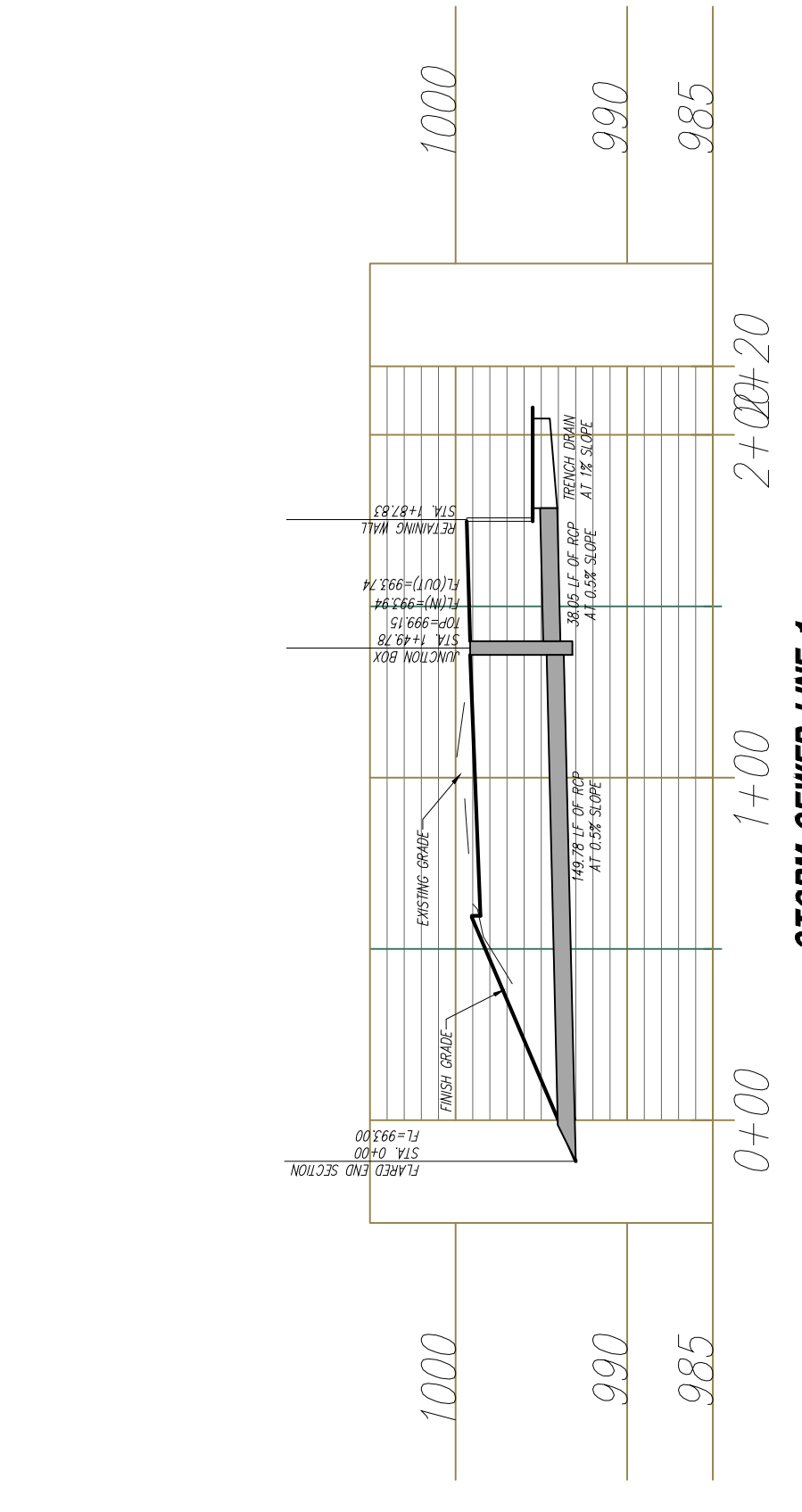
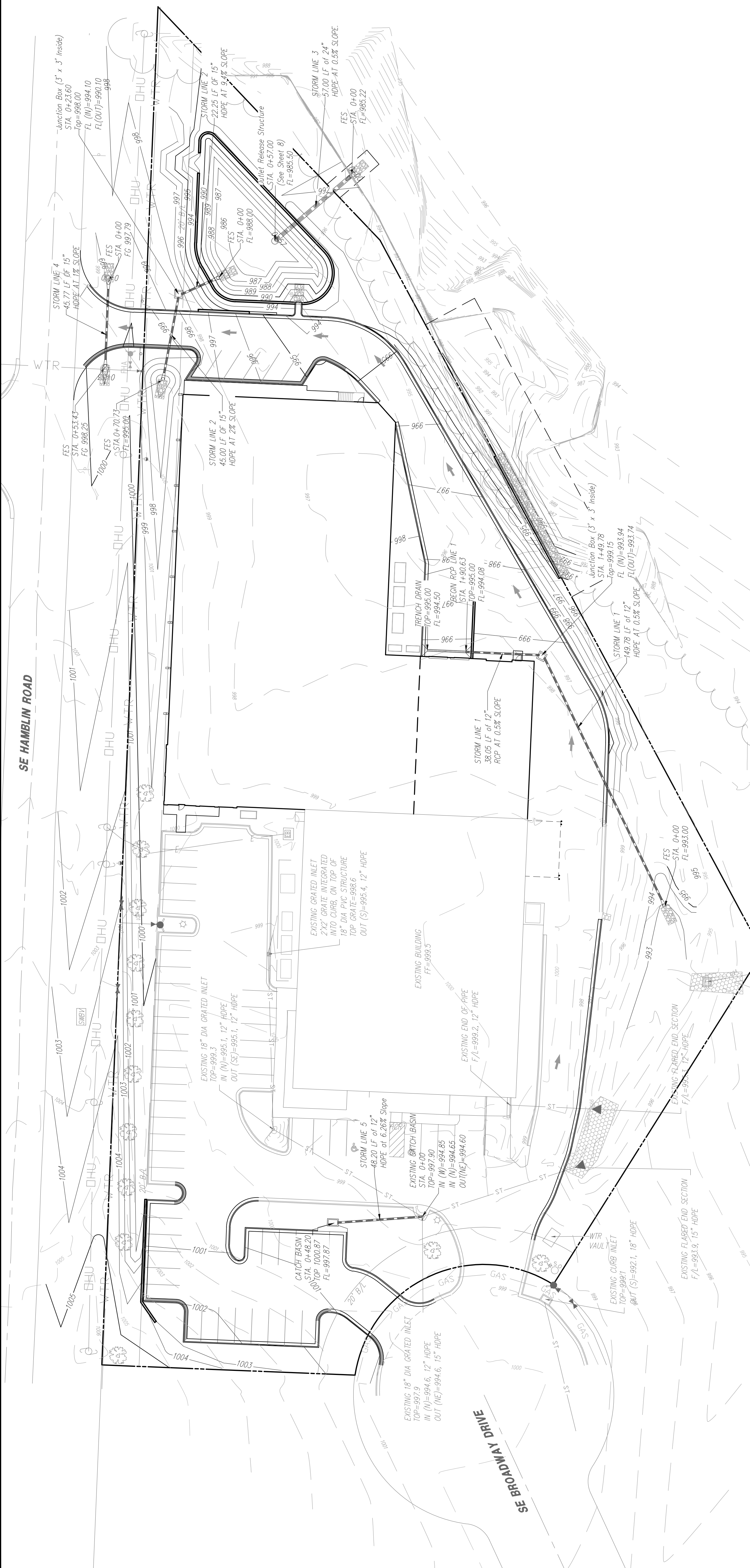
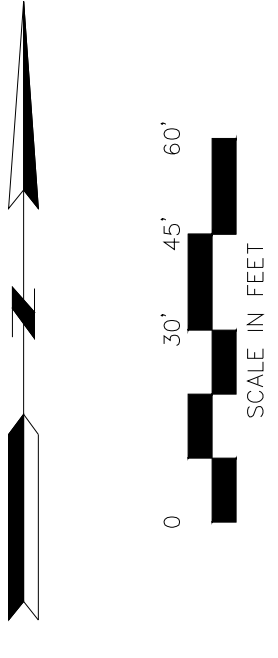
NO. BY DATE
1 EDH RKS 1/30/19
1 EDH RKS 4/24/19
DATE REVISION
5/21/19

5 SHEET OF 11

NO.	BY	DATE	REVISION
1	EDH	1/30/19	Revised per city comments dated 1/30/19
1	EDH	4/24/19	Revised per city comments dated 4/8/19



g Consult
INC engineers
CORPORATE LICENSE NO. E201005873
R. KEVIN STERRETT, NO. E-26440

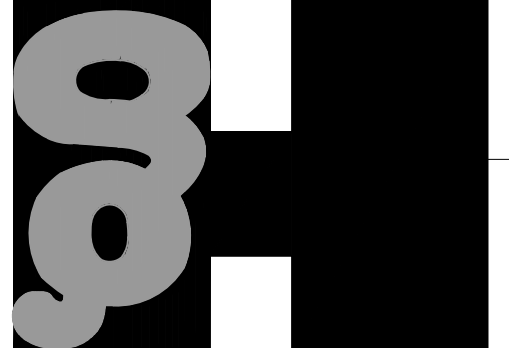


NO.	BY	DATE	REVISION
1	EDH	5/28/19	Revised per city comments dated 1/30/19
2	RKS	4/24/19	Revised per city comments dated 4/8/19

IF THIS IS NOT A BLUE INK SEAL AND SIGNATURE IN BLUE INK, THE PLAN IS A COPY AND MAY CONTAIN UNAUTHORIZED ALTERATIONS. THE CERTIFICATION CONTAINED ON THIS DOCUMENT SHALL NOT APPLY TO ANY COPIES.



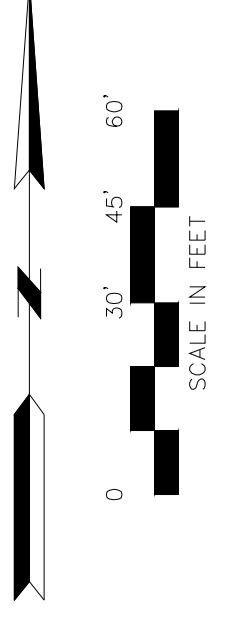
g Consult Inc engineers
CORPORATE LICENSE NO. E201005873
5/2/19
R. KEVIN STERRETT, License No. E-26440



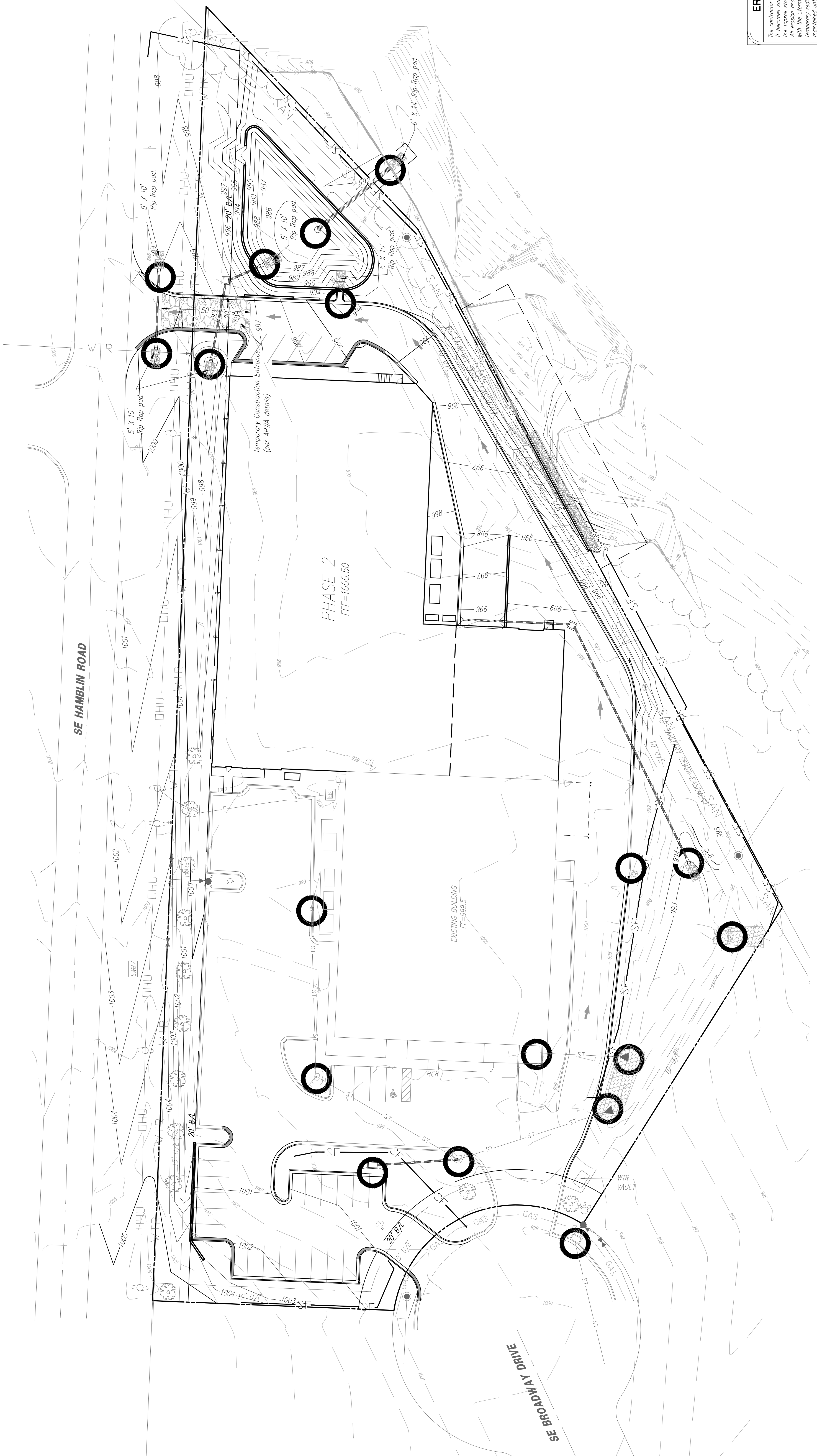
LEES SUMMIT - JACKSON COUNTY - MISSOURI
HIGH TECH SOLUTIONS
EROSION CONTROL PLAN

PROJECT NO.	181508
DRAWING NO.	1806.3
DATE	OCTOBER 12, 2018
SCALE	AS SHOWN

6 SHEET OF 11



Know what's below.
Call before you dig.



Area of Disturbance: 2.63 AC

EROSION CONTROL GENERAL NOTES:

The contractor shall inspect, repair and add stone to the stone construction entrance when the stone is displaced or eroded. The stone shall be replaced with a temporary seed mix. All erosion and sediment control devices shall be inspected, cleaned, repaired in accordance with the Storm Water Pollution Prevention Plan, construction entrance, etc.) shall be maintained until all contributing areas are graded and stabilized.

A complete plan for maintenance of control devices is contained within the Storm Water Pollution Prevention Plan. The contractor shall be responsible for the maintenance of all control devices. The contractor shall be responsible for the maintenance of all control devices. The contractor shall be responsible for the maintenance of all control devices.

Dust control on site shall be minimized by spraying water on dry areas of the site. The use of site and other petroleum based or toxic liquids for dust suppression is strictly prohibited. If the majority of mud or dirt is not removed from exiting traffic, contractor shall establish a dust control system. The contractor shall be responsible for the maintenance of all control devices. The contractor shall be responsible for the maintenance of all control devices.

Intercepted and trapped before wash water is allowed to be discharged off-site. Rise-off will not be allowed outside the project construction limits. The contractor shall be responsible for the maintenance of all control devices. The contractor shall be responsible for the maintenance of all control devices.

Inspect and repair the collection system (i.e. catch basins, piping, swales, rip rap, etc.) and existing structures, fencing, trees, etc., within the construction area shall be removed and disposed of off site per state and local ordinances. Any burning on site shall be subject to local ordinances. Track, vehicle cleaning, equipment cleaning, etc.) shall be disposed of in a manner that prevents contact between these materials and storm water that is discharged from the site.

Control devices shall be checked or tracked from vehicles onto roadways or into storm drains. The contractor shall be responsible for the maintenance of all control devices. The contractor shall be responsible for the maintenance of all control devices.

Contractor shall remove all temporary erosion control devices/fences and dispose of per local codes once the site has been stabilized. Contractor shall refer to the grading plan and disturbing activities shall not commence until approval to do so has been received by governing authorities.

The contractor shall be responsible for the maintenance of all control devices. The contractor shall be responsible for the maintenance of all control devices.

All exposed areas shall be seeded or sprayed within 14 days of final grading. No bare clearing or grading shall begin until an erosion control measure has been installed.

After every significant rainfall producing rainfall event of 1/2" or greater and at least once a week.

A. Inspect the detention basin system for sediment accumulation, erosion, and debris.

B. Check and clear the outlet device of any obstructions.

This plan shall not be considered as inclusive as the general contractor shall take all necessary precautions to ensure compliance with all State and Local ordinances that apply. Additional erosion and sediment control measures will be installed if deemed necessary by the City or MoDOT.

General Contractor shall be responsible to take whatever means necessary to establish and maintain erosion and siltation control methods and devices may be required as directed by the City or MoDOT.

KEY

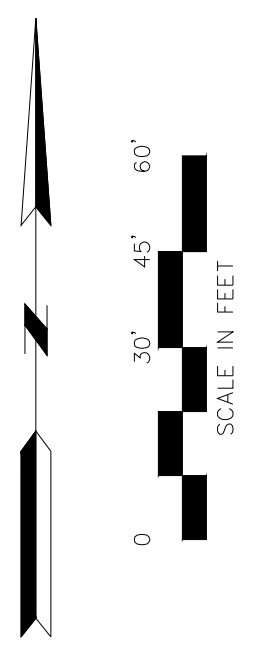
PROPOSED	EXISTING
979	960
SF	Grades
	Proposed Silt Fence
	Inlet/Outlet protection

PROJECT BENCHMARK:
#1 Top of Sanitary Manhole lid at south
#2 Top of Broadway cut-off sec.
N: 982422.0390
E: 282902.5430
TOP ELEV: 1001.50

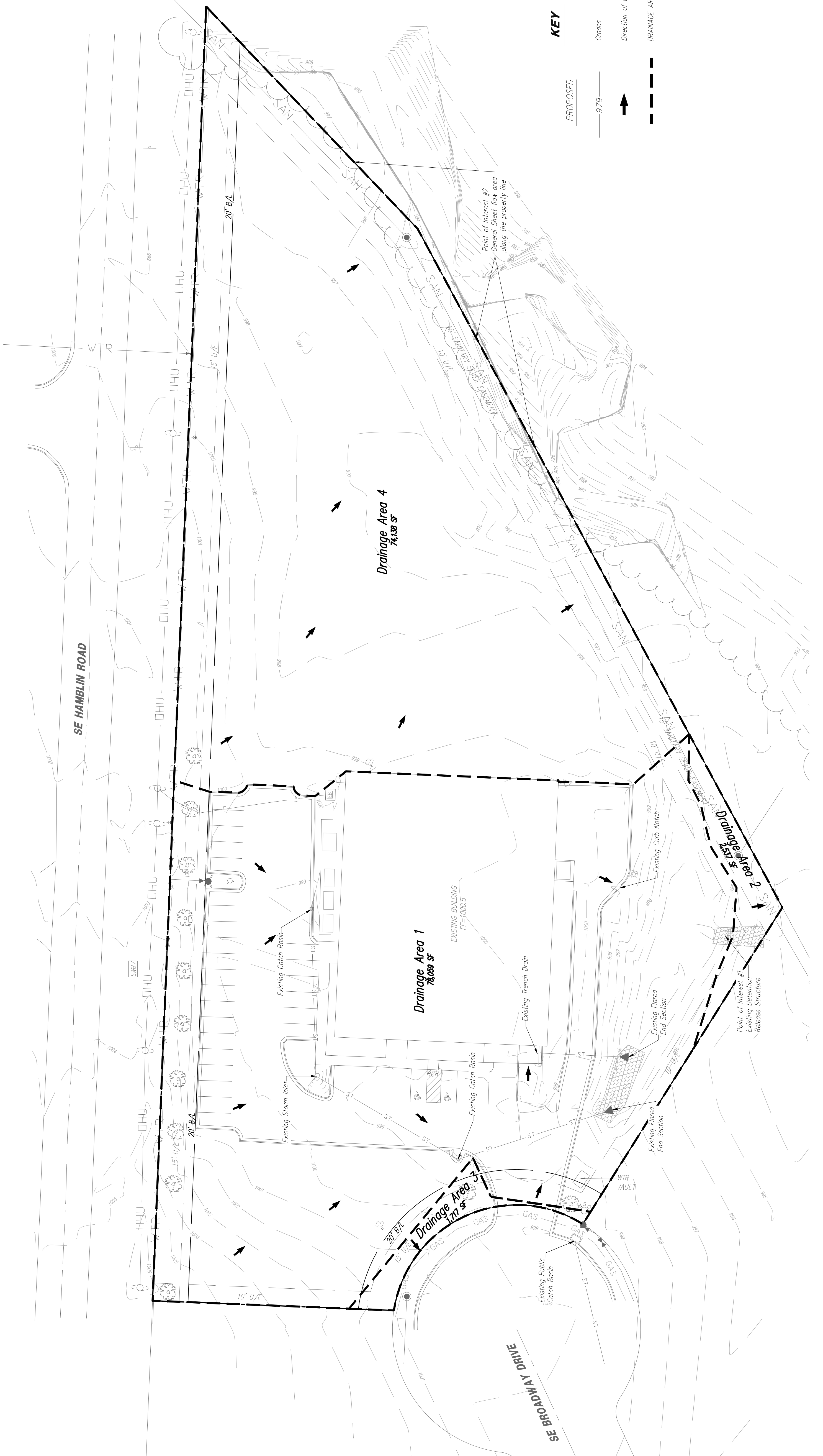
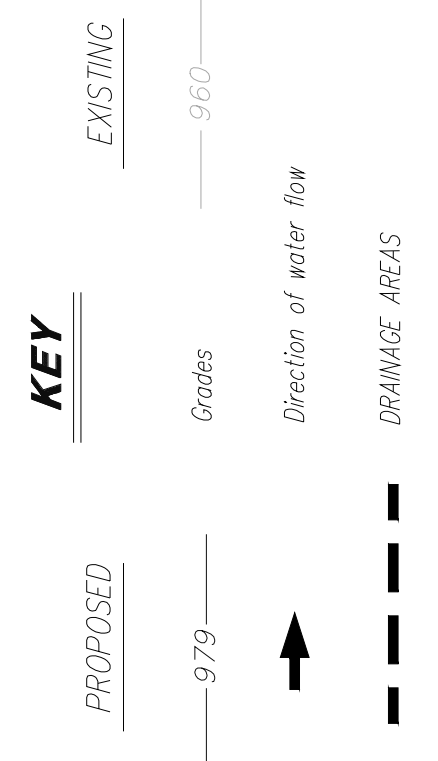
NO.	BY	DATE	REVISION
1	EDH	1/30/19	Revised per city comments dated 1/30/19
2	RKS	4/24/19	Revised per city comments dated 4/8/19



g Consult Inc engineers
 CORPORATE LICENSE NO. E2010005873
 R. KEVIN STERRETT, NO. E-26440
 5/2/19



Know what's below.
 Call before you dig.

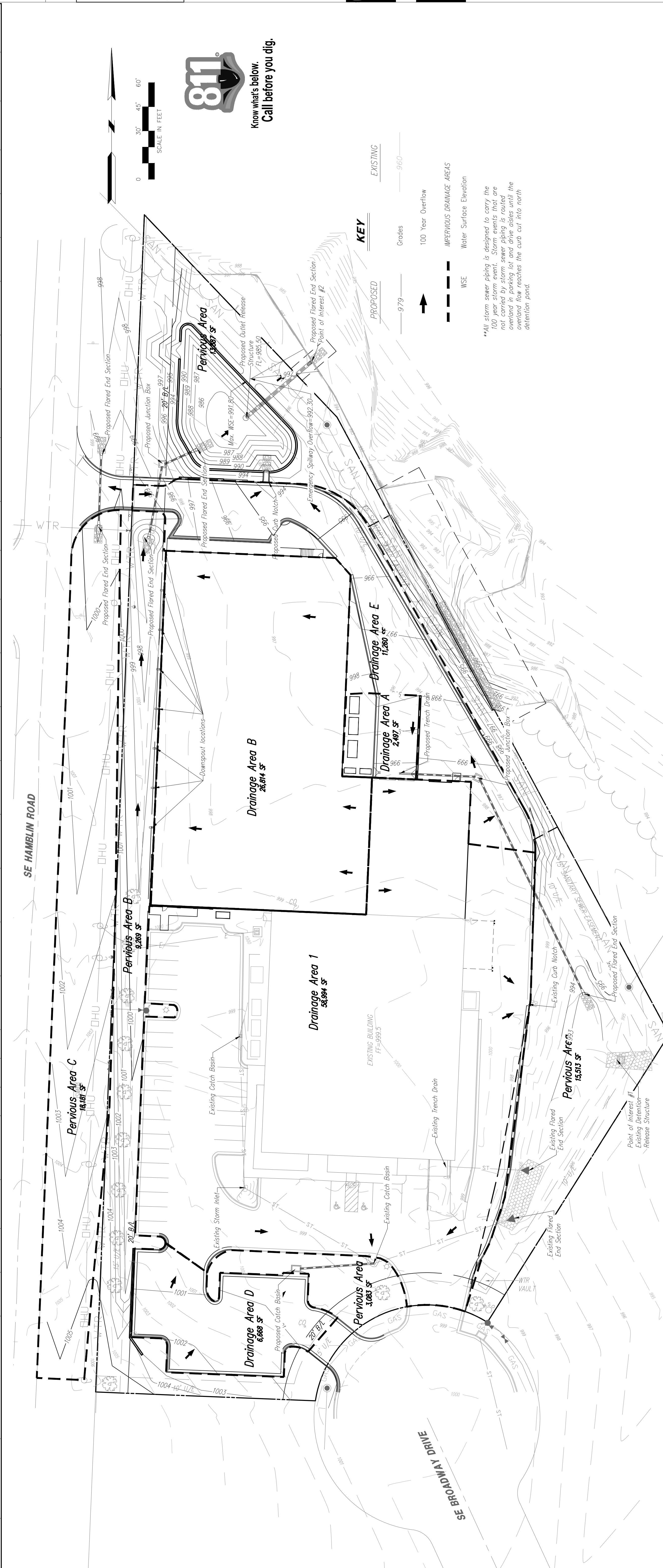


PROJECT BENCHMARK:
 #1 Top of Sanitary Manhole lid at south side of site on SE Broadway cut-off - soc.
 NAD 83
 E: 2929072.5430
 TOP ELEV. 1001.50

STORM SEWER CALCULATIONS

HT SOLUTIONS

STORM SEWER NO.	SEWER LOCATION		TRIBUTARY AREA (AC.)			TIME OF FLOW			COMPOSITE RUNOFF COEFFICIENT			10 YEAR DESIGN			100 YEAR DESIGN			CURB INLET			PIPE DESIGN				
	FROM STRUCTURE NO.	TO STRUCTURE	AREA DESIGNATION	TOTAL ACRES	Tc	Tt	INTENSITY [in/hr]	By Pass In (cfs)	Total In (cfs)	INTENSITY [in/hr]	By Pass In (cfs)	AREA [sq ft]	In Pipe Upstream (cfs)	By Pass In (cfs)	TOTAL [sq ft]	In Pipe Downstream (cfs)	By Pass Out (cfs)	Pipe Size [in]	Pipe Slope [%]	Pipe Type	Rough Coeff [MANNING]	Design Velocity [fps]	Depth Flow (inches)	Full Flow Velocity [fps]	Full Flow [cfs]
	LINE NO.	LINE NO.	LINE NO.	LINE NO.	LINE NO.	LINE NO.	LINE NO.	LINE NO.	LINE NO.	LINE NO.	LINE NO.	LINE NO.	LINE NO.	LINE NO.	LINE NO.	LINE NO.	LINE NO.	LINE NO.	LINE NO.	LINE NO.	LINE NO.	LINE NO.	LINE NO.	LINE NO.	LINE NO.
LINE 1	TRENCH DRAIN	JB	A	0.05	0.05	0.90	0.05	0.05	7.35	0.0	0.3	0.3	0.0	0.0	0.6	0.6	0.0	12	0.50	HDPE	0.011	3.2	7.9	3.8	3.0
LINE 1	JB	FES	-	0.00	0.05	0.00	0.05	0.0	7.35	0.0	0.3	0.3	0.0	0.6	0.6	0.6	0.0	12	0.50	HDPE	0.011	3.2	6.5	3.8	3.0
LINE 2	JB	FES	B	0.83	0.88	0.72	0.88	0.0	7.35	0.0	4.4	4.4	0.0	0.6	8.3	8.3	0.0	15	2.00	HDPE	0.011	8.4	6.0	8.8	10.8
LINE 2	JB	FES	-	0.00	0.88	0.00	0.88	0.0	7.35	0.0	0.0	0.0	0.0	0.6	9.40	9.40	0.0	15	2.00	HDPE	0.011	8.4	7.0	9.6	11.6
LINE 3	OUTLET	FES	-	0.00	0.88	0.00	0.88	0.0	7.35	0.0	0.0	0.0	0.0	0.6	9.40	9.40	0.0	8	0.50	HDPE	0.011	10.6	8.0	10.6	3.7
LINE 4	FES	FES	C	0.41	1.29	0.20	1.29	5.0	0.0	5.0	0.6	0.0	0.0	0.6	1.1	1.1	0.0	15	1.00	HDPE	0.011	5.6	2.4	6.2	7.6
LINE 5	CB	EX. CB	D	0.15	1.44	0.90	1.44	5.0	0.0	5.0	1.6	0.6	1.1	0.0	2.8	2.8	0.0	12	6.26	HDPE	0.011	5.4	6.0	4.2	5.4
-	FLUME	-	E	0.26	1.70	0.90	1.70	5.0	0.0	5.0	1.7	0.6	1.1	0.0	2.7	2.7	0.0	NA	NA	NA	NA	1.8	3.0	1.8	2.7



Detention Pond Details:

Elevation (feet)	Surf Area (sq-ft)	Cum. Store (Galic-Feet)
995.000	1,148.80	287.58
997.000	1,759.34	1,443.27
998.000	2,253.05	3,747.84
999.000	2,800.89	6,274.81
999.000	3,400.19	9,375.35
999.000	4,050.51	13,000.70
999.000	4,866.36	17,599.13
999.000	4,866.36	21,545.14

PROJECT BENCHMARK:
 #1 Top of Sanitary Manhole lid at south side of site on SE Broadway, cut=88-50C.
 N: 999422.0300
 E: 2929012.5430
 TOP ELEV. 1001.50

DETECTION RELEASE STRUCTURE

6" MIN. WALL THICKNESS
 4000 PSI @ 28 DAY CONCRETE, TYPE II
 THREAT ELEVATION=899.30
 2'-3" DIAMETER OPENING WITH 4" CLEAN ROCK AROUND OPENING
 1'-1" DIAMETER OPENING WITH 4" CLEAN ROCK AROUND OPENING
 1'-1" DIAMETER OPENING WITH 4" CLEAN ROCK AROUND OPENING
 1'-1" DIAMETER OPENING WITH 4" CLEAN ROCK AROUND OPENING
 6" ROCK RIP RAP TO ELEVATION=897.70
 24" HOPE PIPE
 MINIMUM OF 12" WASHED STONE
 TYPICAL PENETROSCOPE SHAFT BE NO. 4 BASES @ 12" O.C.
 5" MINIMUM BASE THICKNESS

NO.	BY	DATE	REVISION
1	EDH	1/30/19	Revised per city comments dated 1/30/19
1	EDH	4/8/19	Revised per city comments dated 4/8/19

HT SOLUTIONS

811 Know what's below. Call before you dig.

811

Know what's below. Call before you dig.

811

Know what's below. Call before you dig.

IF THIS IS NOT A BLUE INK SEAL AND SIGNATURE IN BLUE INK, THE PLAN IS A COPY AND MAY CONTAIN UNAUTHORIZED ALTERATIONS. THE CERTIFICATION SHALL APPLY TO ANY COPIES.

CORPORATE LICENSE NO. E210005873
 R. KEVIN STERETT, P.E. NO. E-26440

5/2/19

HT CONSULT
 Inc engineers

LEES SUMMIT - JACKSON COUNTY - MISSOURI

HIGH TECH SOLUTIONS

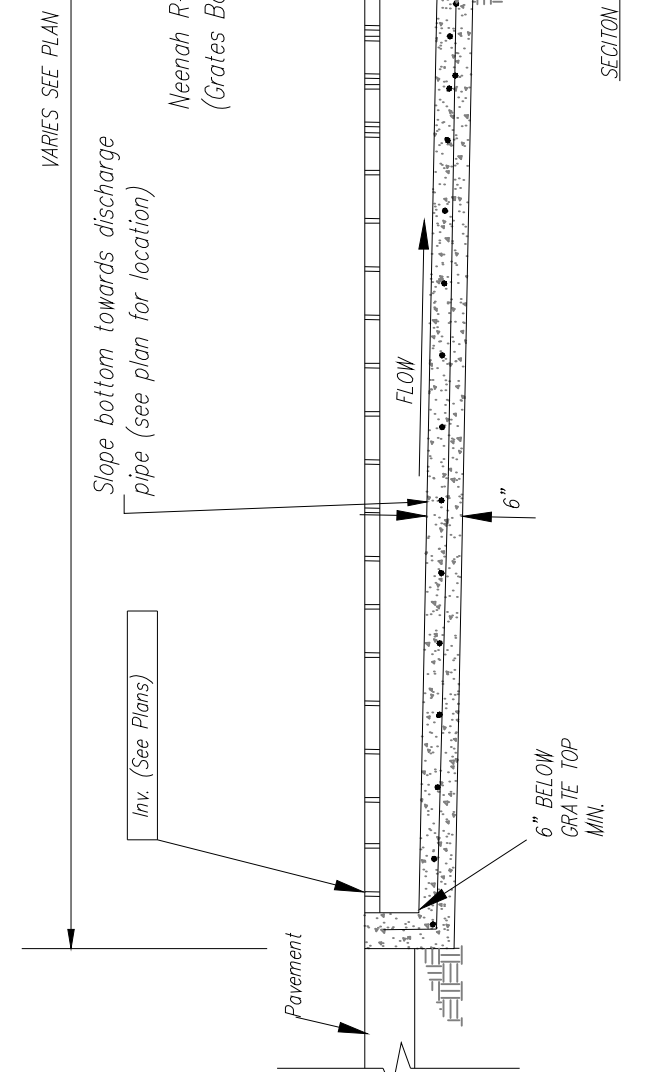
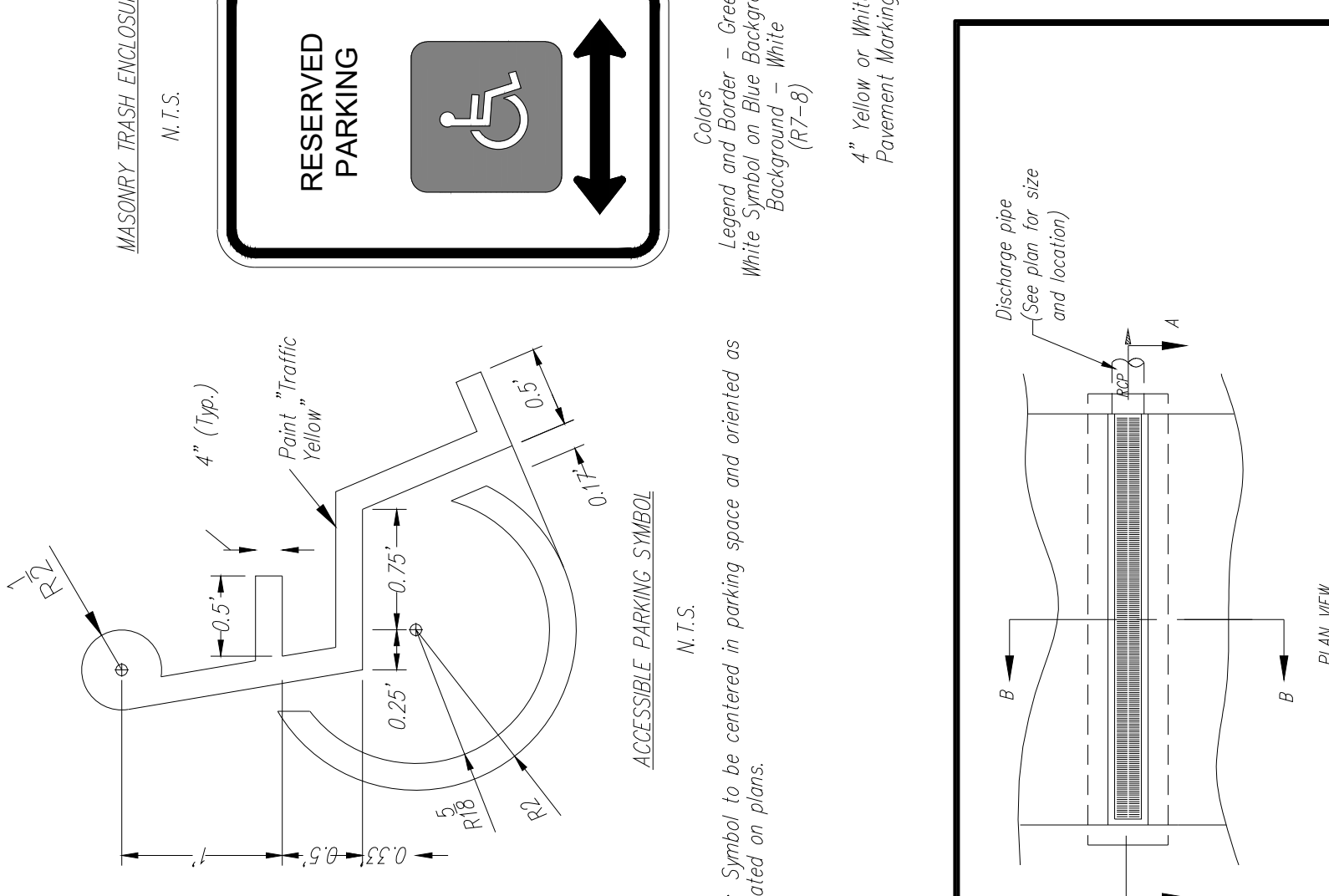
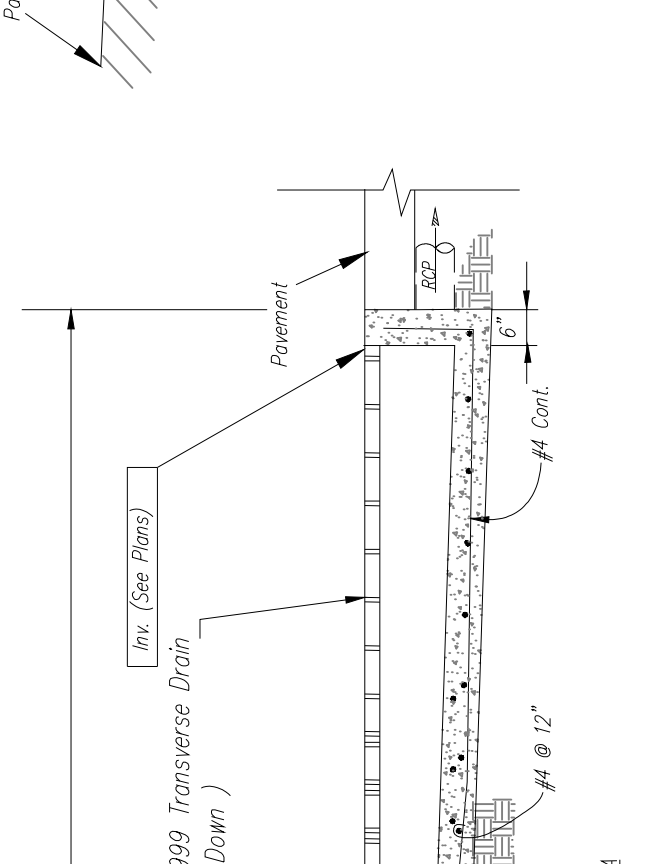
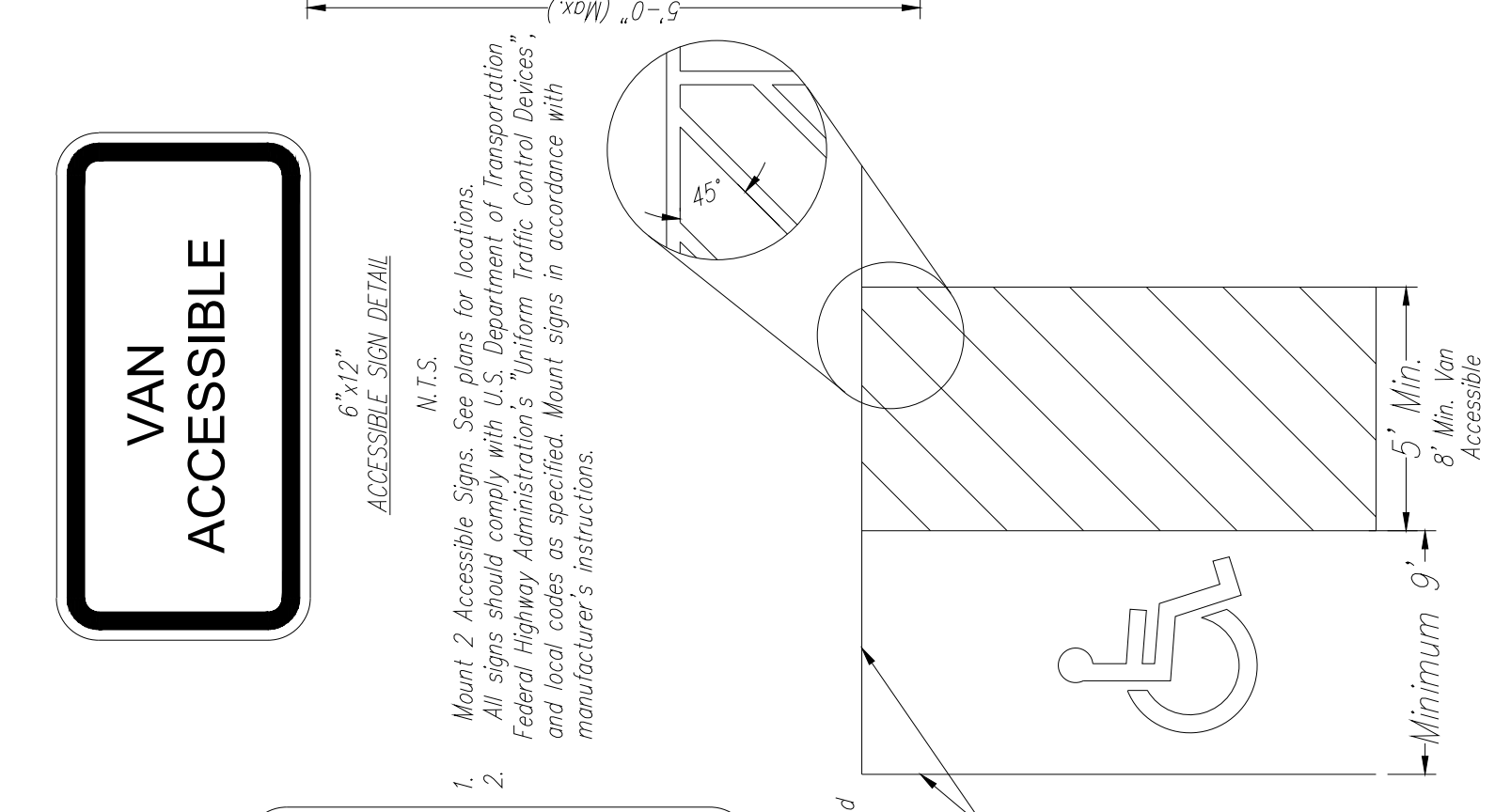
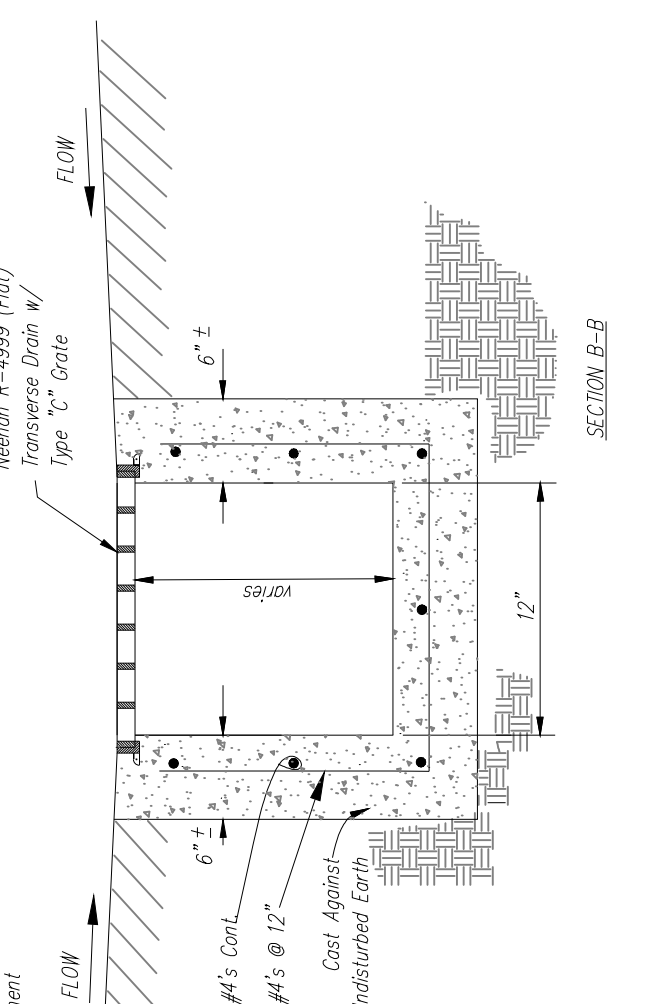
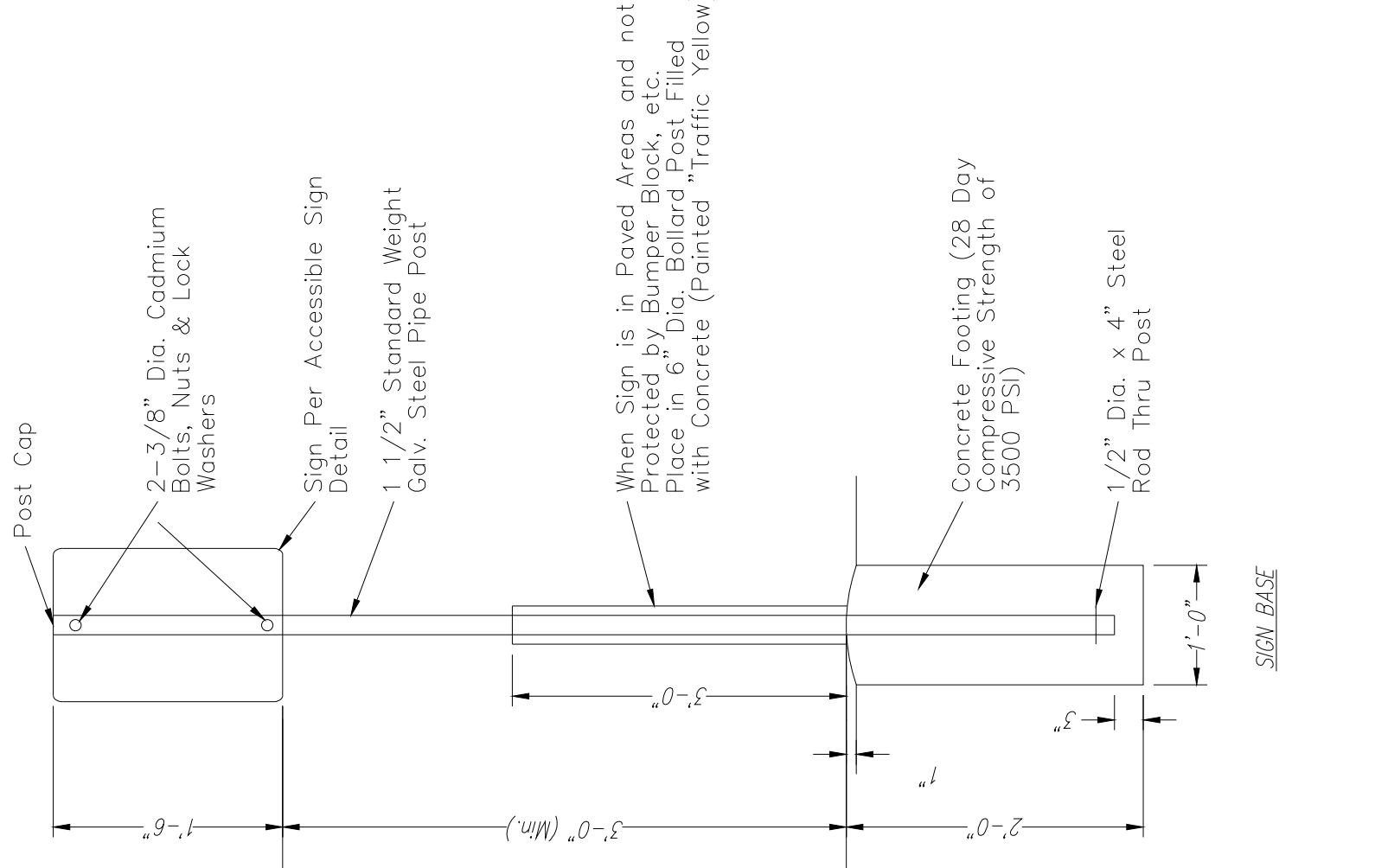
POST DEVELOPMENT DRAINAGE AREA MAP

8 SHEET OF 11

NOV 15 2018
 181 S 10th
 DRAWING NO. 1806.3
 DATE OCTOBER 12, 2018
 1806.3

NO.	BY	OC/APP	DATE	REVISION

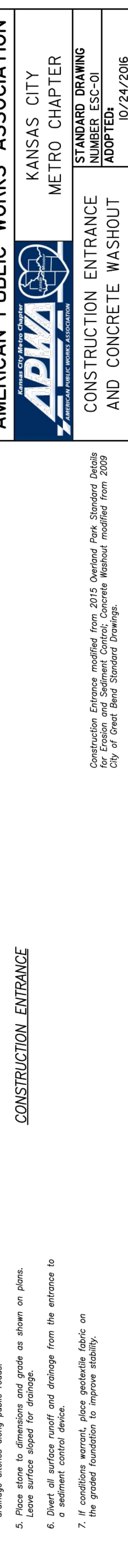
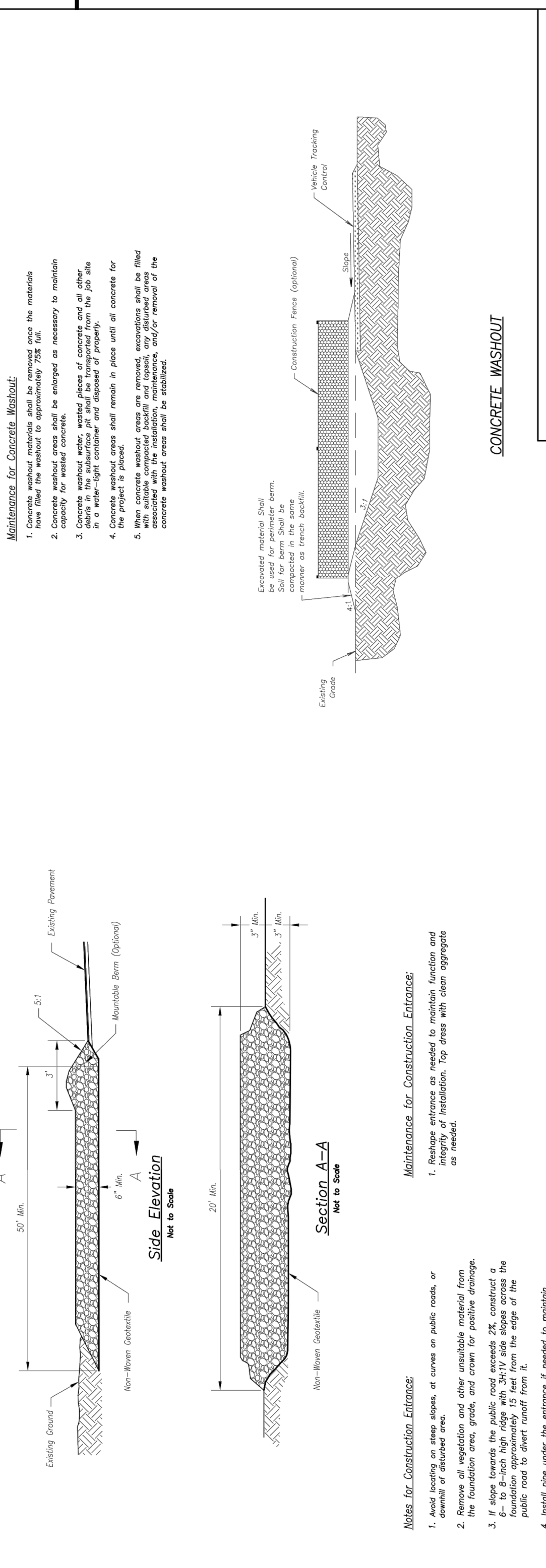
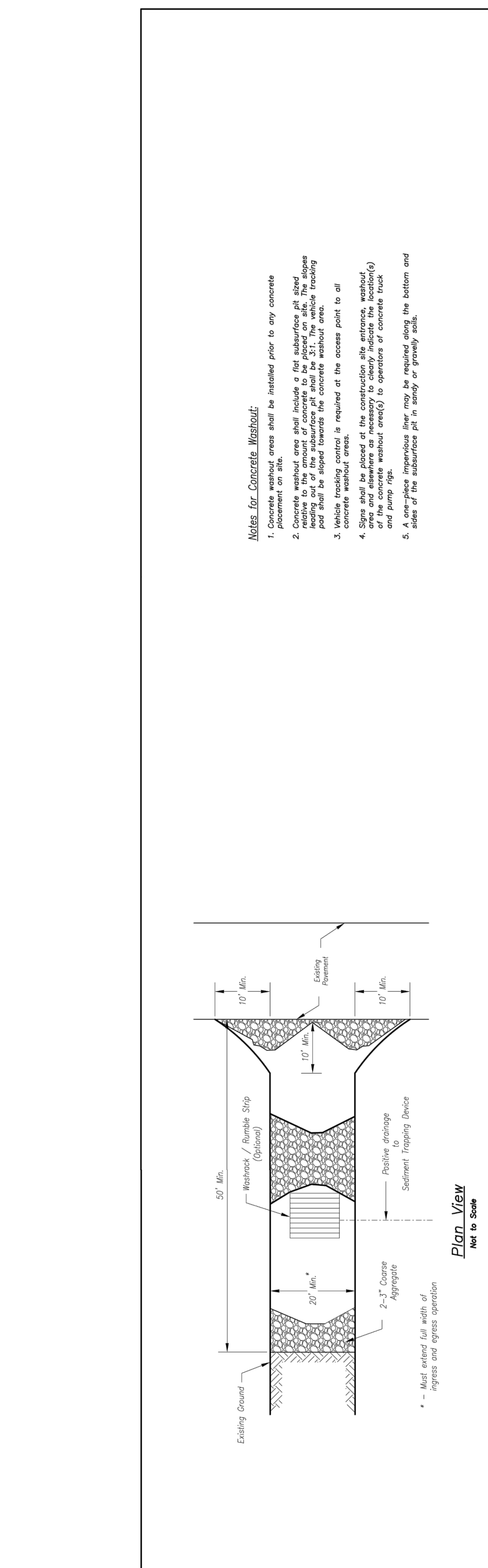
K.A.S. No. 181.038	DRAWING NO. 1806.3
DATE OCTOBER 12, 2018	
DESIGNED BY JMS	SHEET 9 OF 11
CHECKED BY	



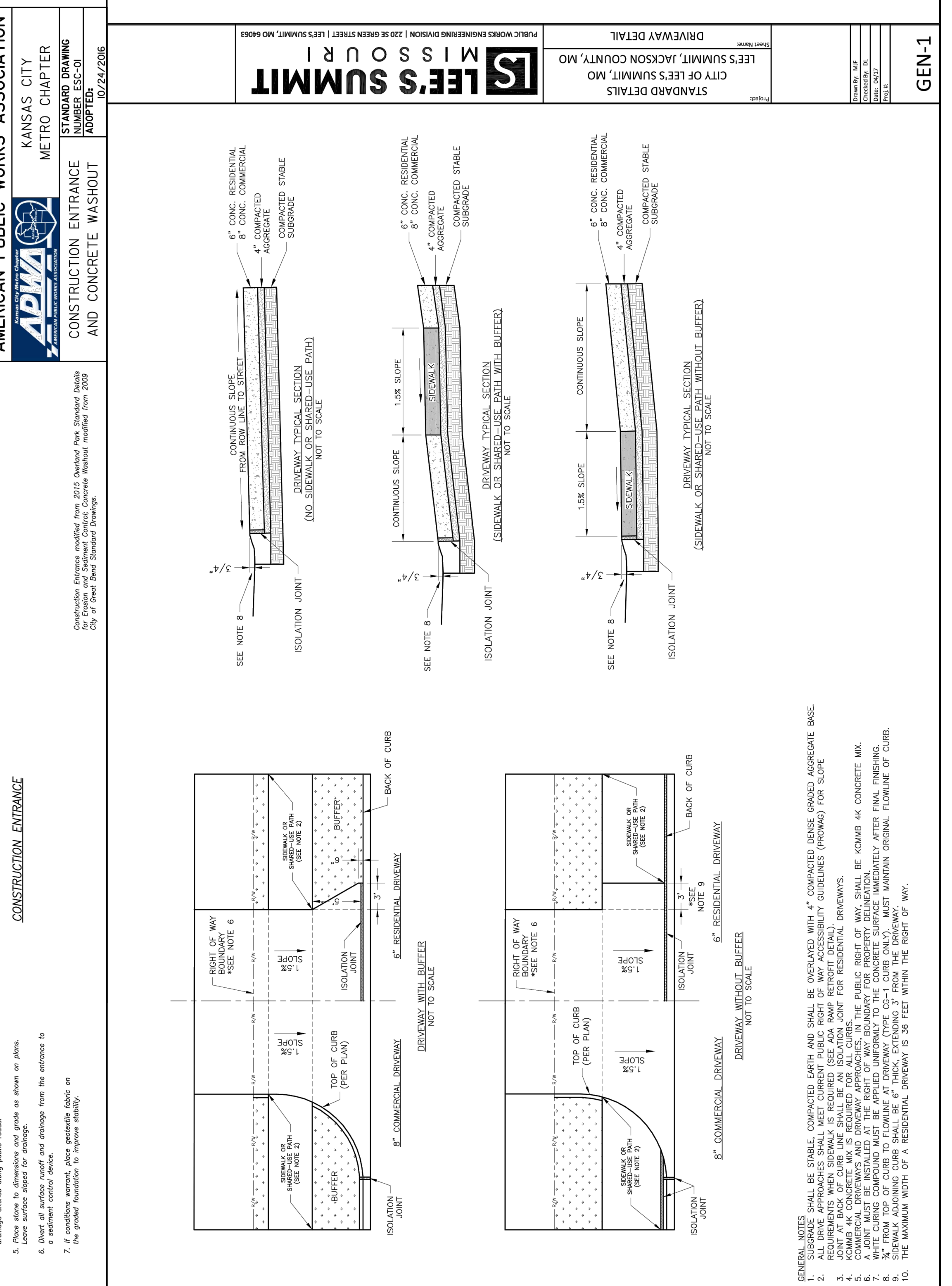
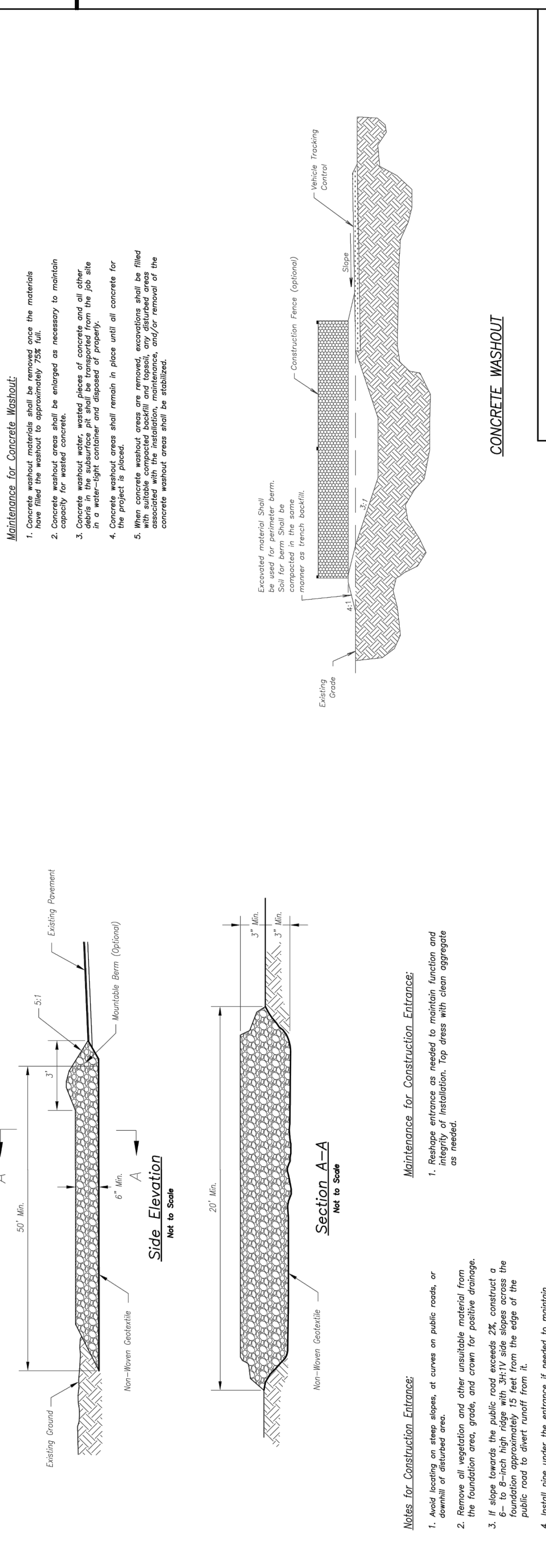
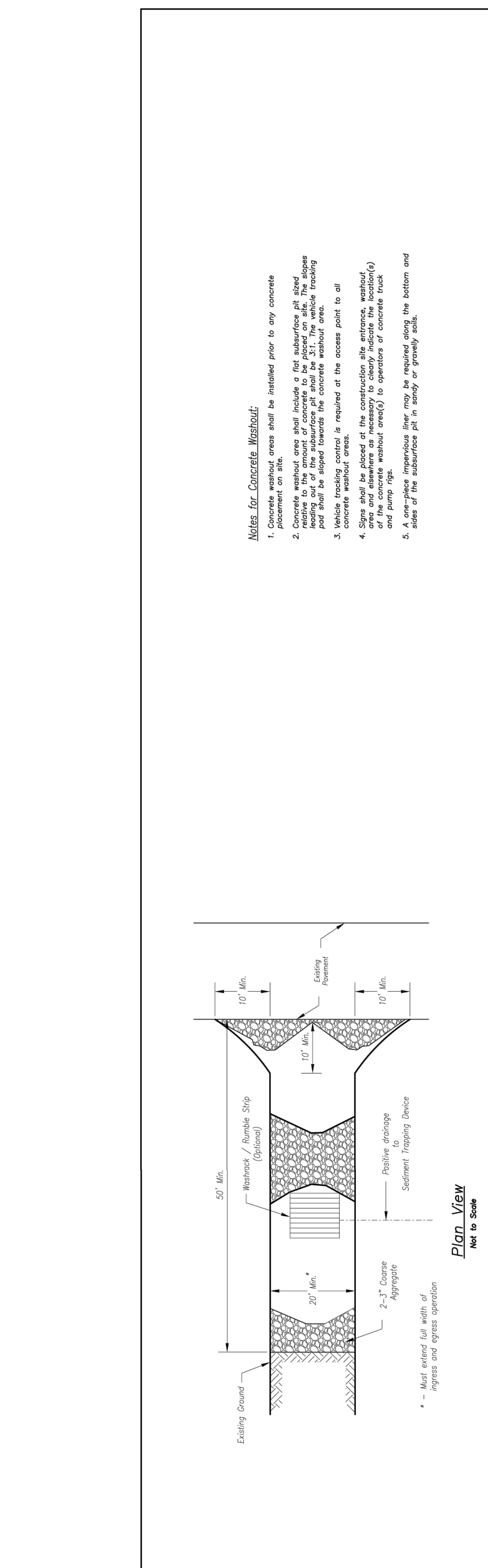
STANDARD DETAILS
 CITY OF LEE'S SUMMIT, MO
 LEE'S SUMMIT, JACKSON COUNTY, MO
 MISSOURI
 PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64643

CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO
MISSOURI
PUBLIC WORKS ENGINEERING DIVISION 220 SE GREEN STREET LEE'S SUMMIT, MO 64643

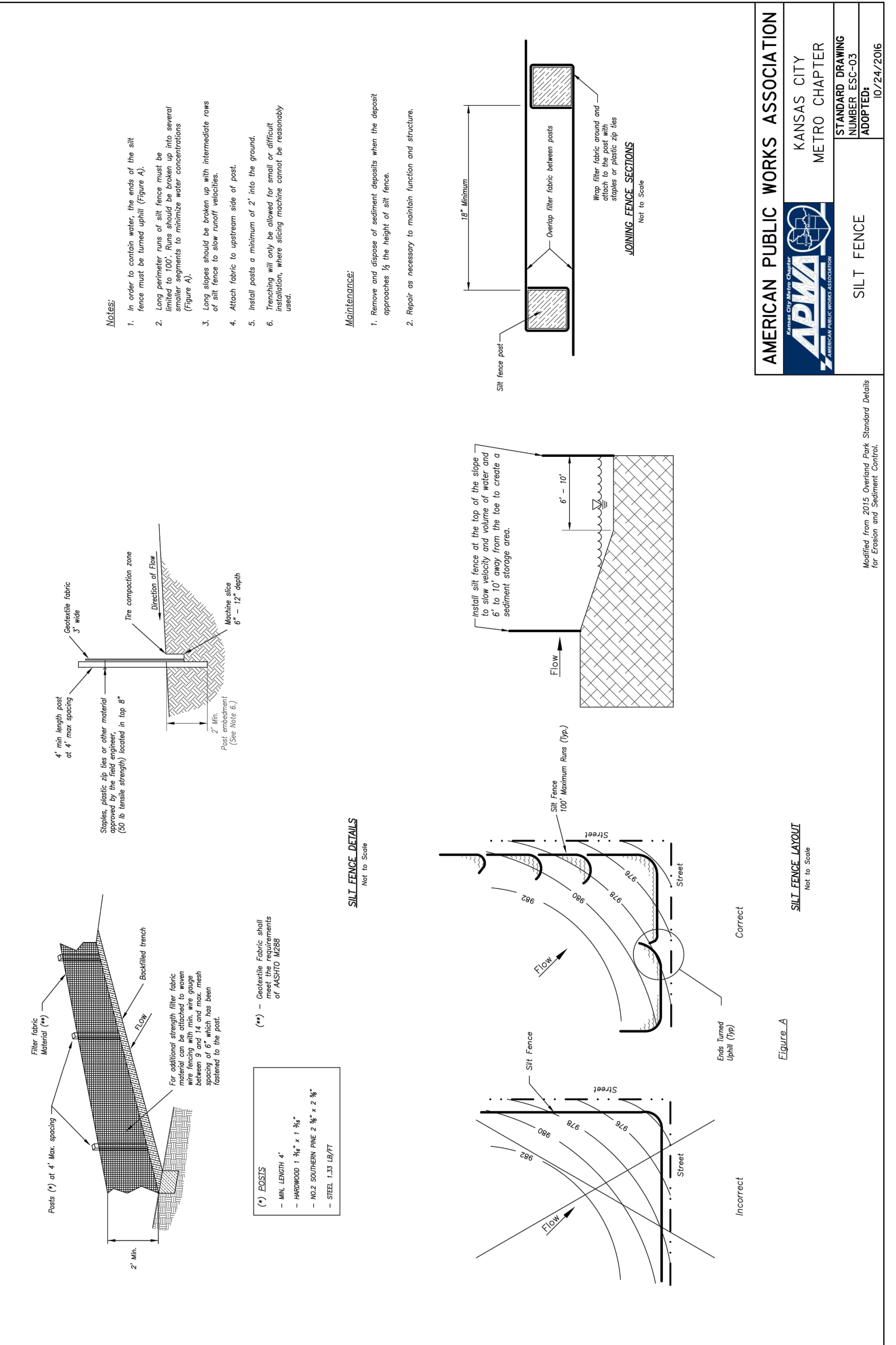
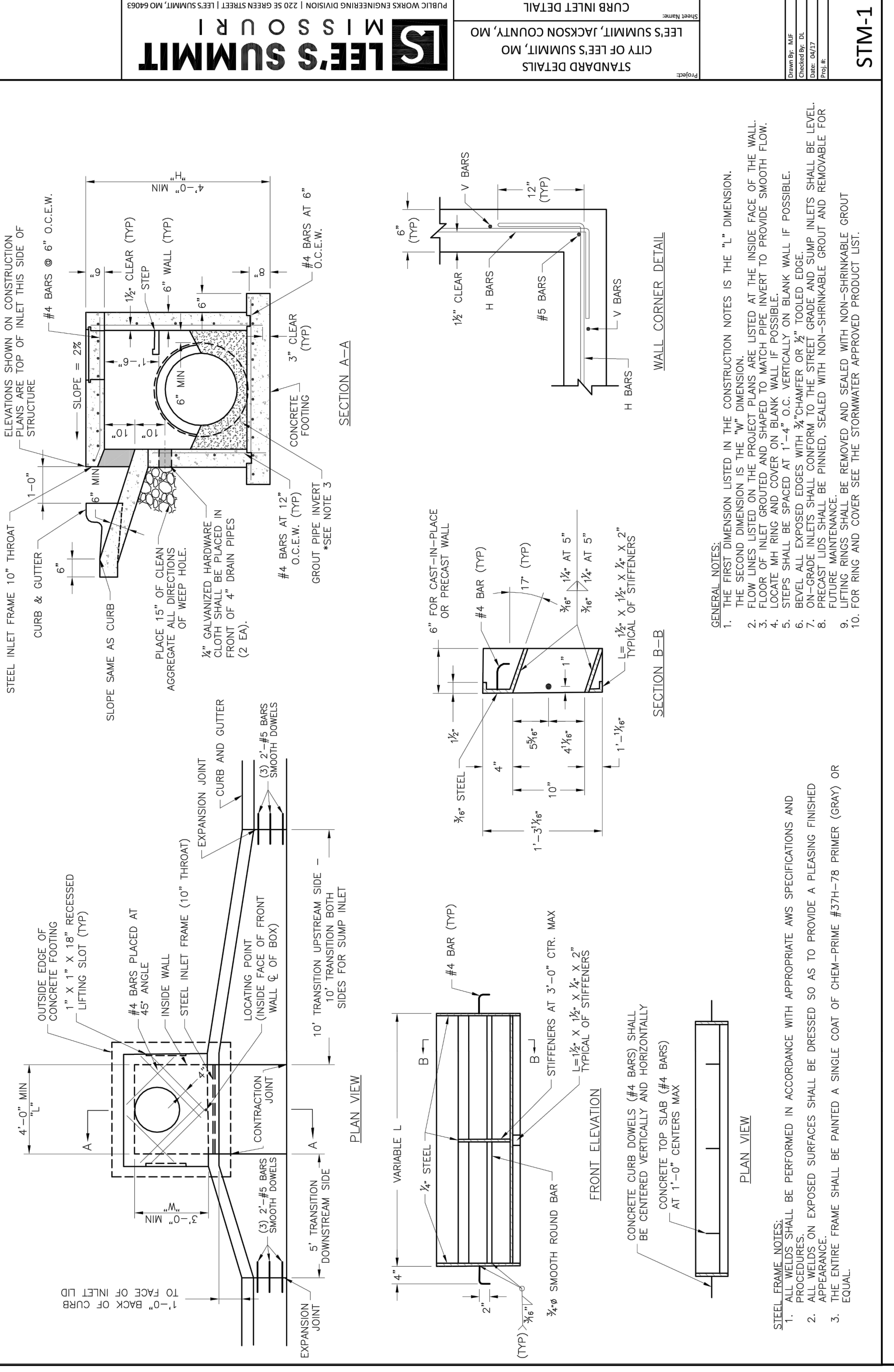
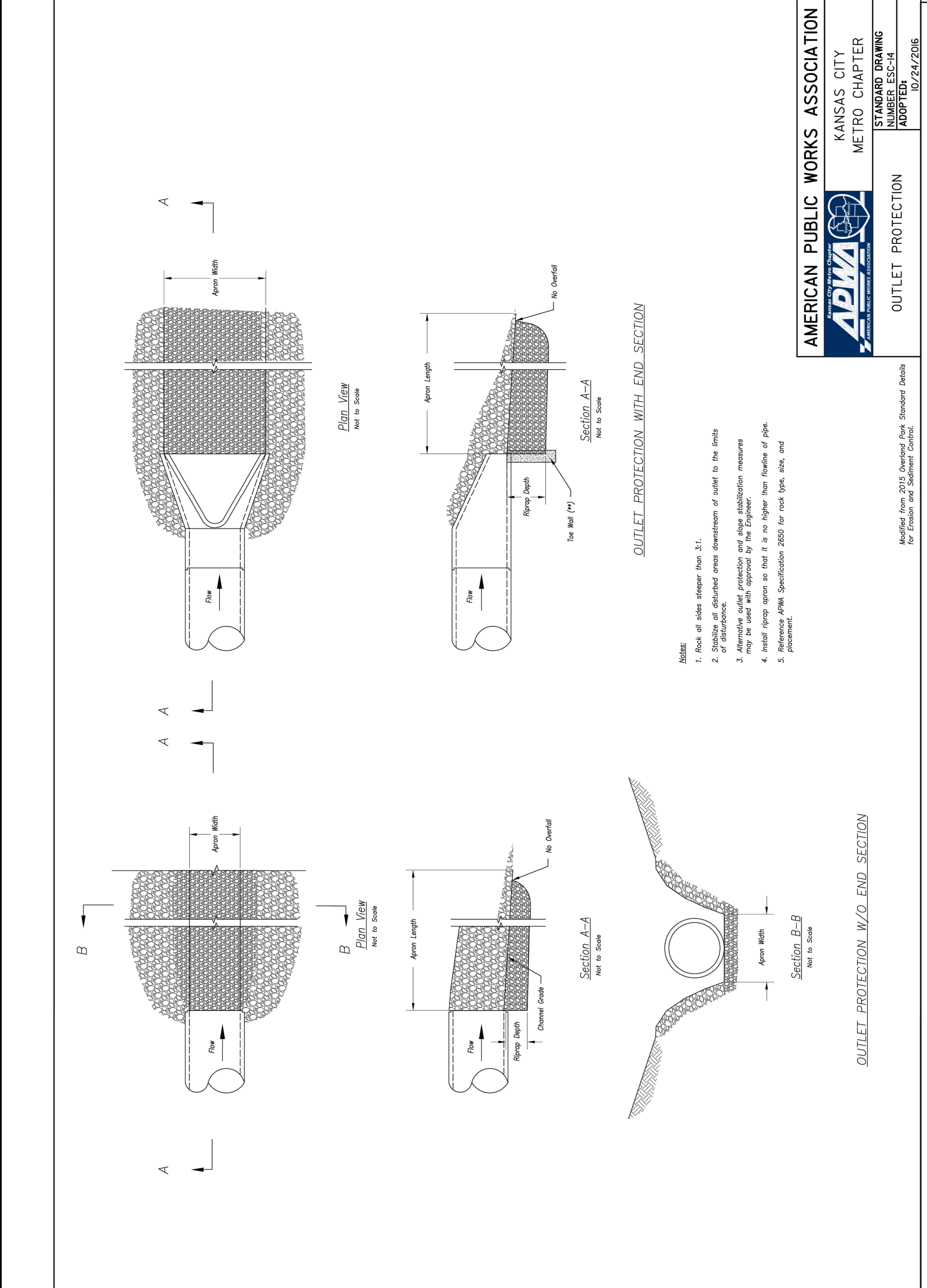
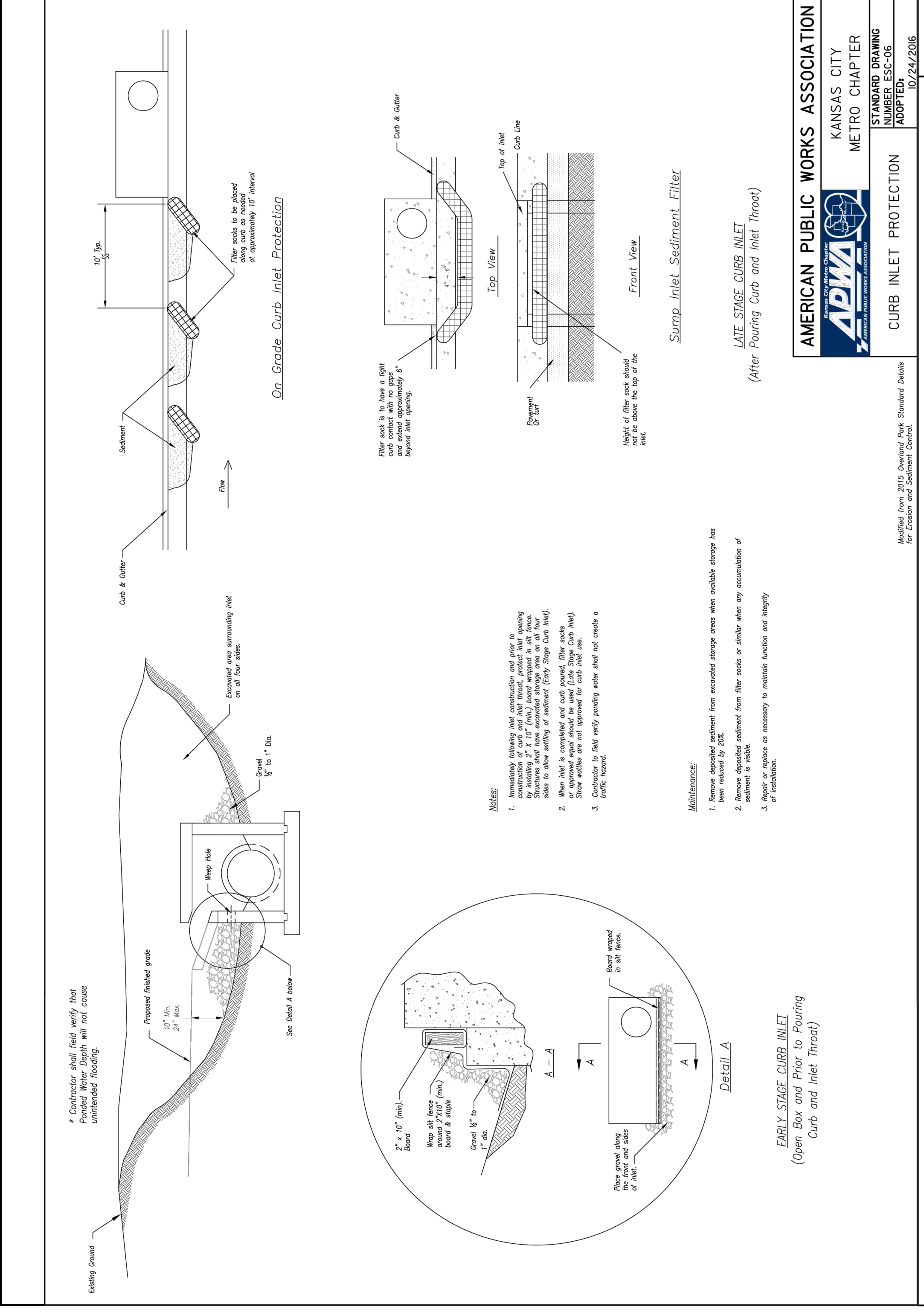
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DATE OCTOBER 12, 2018	
DESIGNED BY JMS	SHEET 9 OF 11
CHECKED BY	

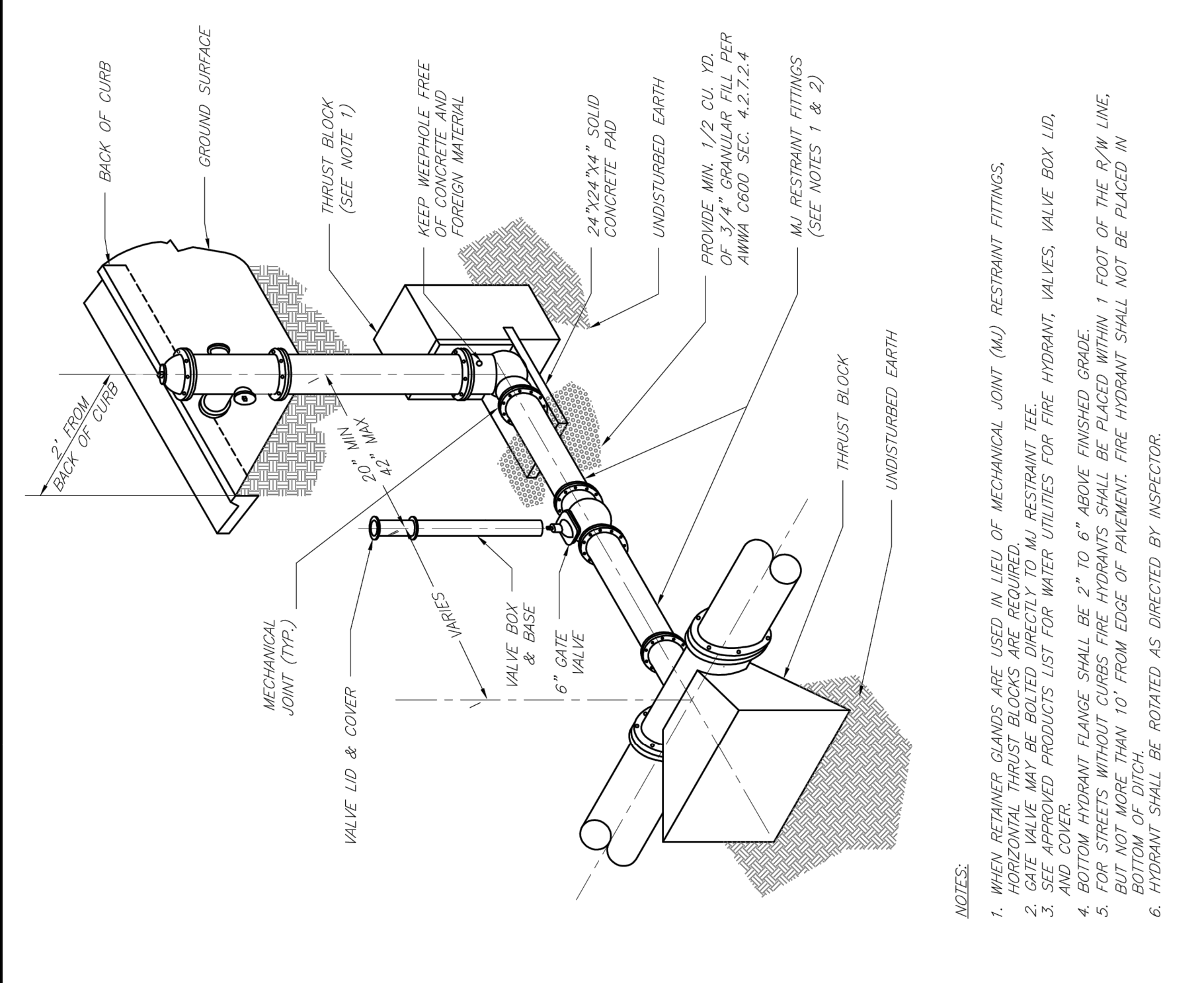


K.A.S. No. 181.038	DRAWING NO. 1806.3
DATE OCTOBER 12, 2018	
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K.A.S. No. 181.038	DRAWING NO. 1806.3
DATE OCTOBER 12, 2018	
DESIGNED BY JMS	SHEET 9 OF 11
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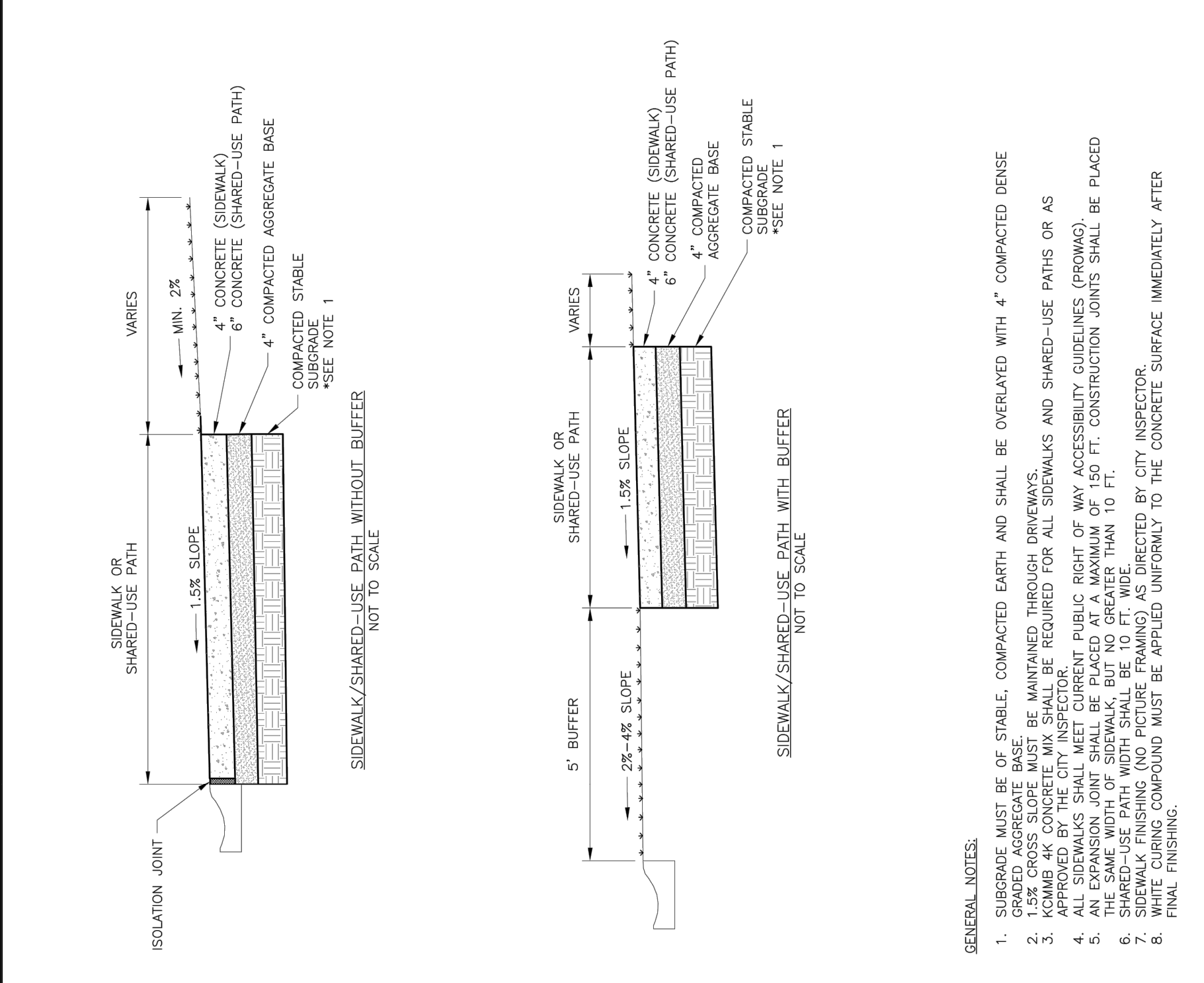


- NOTES:**
1. WHEN RESTRAINT GLANDS ARE USED IN LIEU OF MECHANICAL JOINT (MJ) RESTRAINT FITTINGS, HORIZONTAL THRUST BLOCKS ARE REQUIRED.
 2. GATE VALVE MAY BE BOLTED DIRECTLY TO MJ RESTRAINT TEE.
 3. AND COVERS.
 4. BOTTOM HYDRANT FLANGE SHALL BE 2" TO 6" ABOVE FINISHED GRADE.
 5. FOR STREETS WITHOUT CURBS FIRE HYDRANTS SHALL BE PLACED WITHIN 1 FOOT OF THE R/W LINE, BUT NOT MORE THAN 10' FROM EDGE OF PAVEMENT. FIRE HYDRANT SHALL NOT BE PLACED IN.
 6. HYDRANT SHALL BE ROTATED AS DIRECTED BY INSPECTOR.

LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 225 S. GARDEN STREET | LEE'S SUMMIT, MISSOURI 64069

Date: 02/13
Drawn By: JN
Checked By: DL
Scale: 1/14
Sheet:

HYDRANT INSTALLATION - STRAIGHT SET



- GENERAL NOTES:**
1. SUBGRADE MUST BE 4" STABLE, COMPACTED EARTH AND SHALL BE OVERLAYED WITH 4" COMPACTED DENSE SUBGRADE.
 2. 1.5% CROSS SLOPE MUST BE MAINTAINED THROUGH DRIVEWAYS.
 3. 2% CROSS SLOPE REQUIRED FOR ALL SIDEWALKS AND SHARED-USE PATHS OR AS APPROVED BY THE CITY INSPECTOR.
 4. ALL SIDEWALKS SHALL MEET CURRENT PUBLIC RIGHT OF WAY ACCESSIBILITY GUIDELINES (PROWAG).
 5. SIDEWALKS SHALL BE 4' WIDE MINIMUM AND SHALL BE PLACED WITHIN 1 FOOT OF THE R/W LINE, BUT NOT MORE THAN 10' FROM EDGE OF PAVEMENT. SIDEWALK SHALL NOT BE PLACED IN.
 6. SHARED-USE PATH WIDTH SHALL BE 10' FT. WIDE.
 7. SIDEWALKS SHALL BE 4' WIDE MINIMUM AND SHALL BE PLACED WITHIN 1 FOOT OF THE R/W LINE, BUT NOT MORE THAN 10' FROM EDGE OF PAVEMENT. SIDEWALK SHALL NOT BE PLACED IN.
 8. WHITE CURING COMPOUND MUST BE APPLIED UNIFORMLY TO THE CONCRETE SURFACE IMMEDIATELY AFTER FINAL FINISHING.

LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 225 S. GARDEN STREET | LEE'S SUMMIT, MISSOURI 64069

Date: 04/17
Drawn By: MAF
Checked By: DL

SIDEWALK/SHARED-USE PATH DETAIL

DATE	REVISION	NO.	BY	OK/APP

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Consult Inc engineers
CORPORATE LICENSE NO. E210005873
R. KEVIN STERRETT, MO E-26440



LEE'S SUMMIT - JACKSON COUNTY - MISSOURI
HIGH TECH SOLUTIONS
SITE DETAIL SHEET

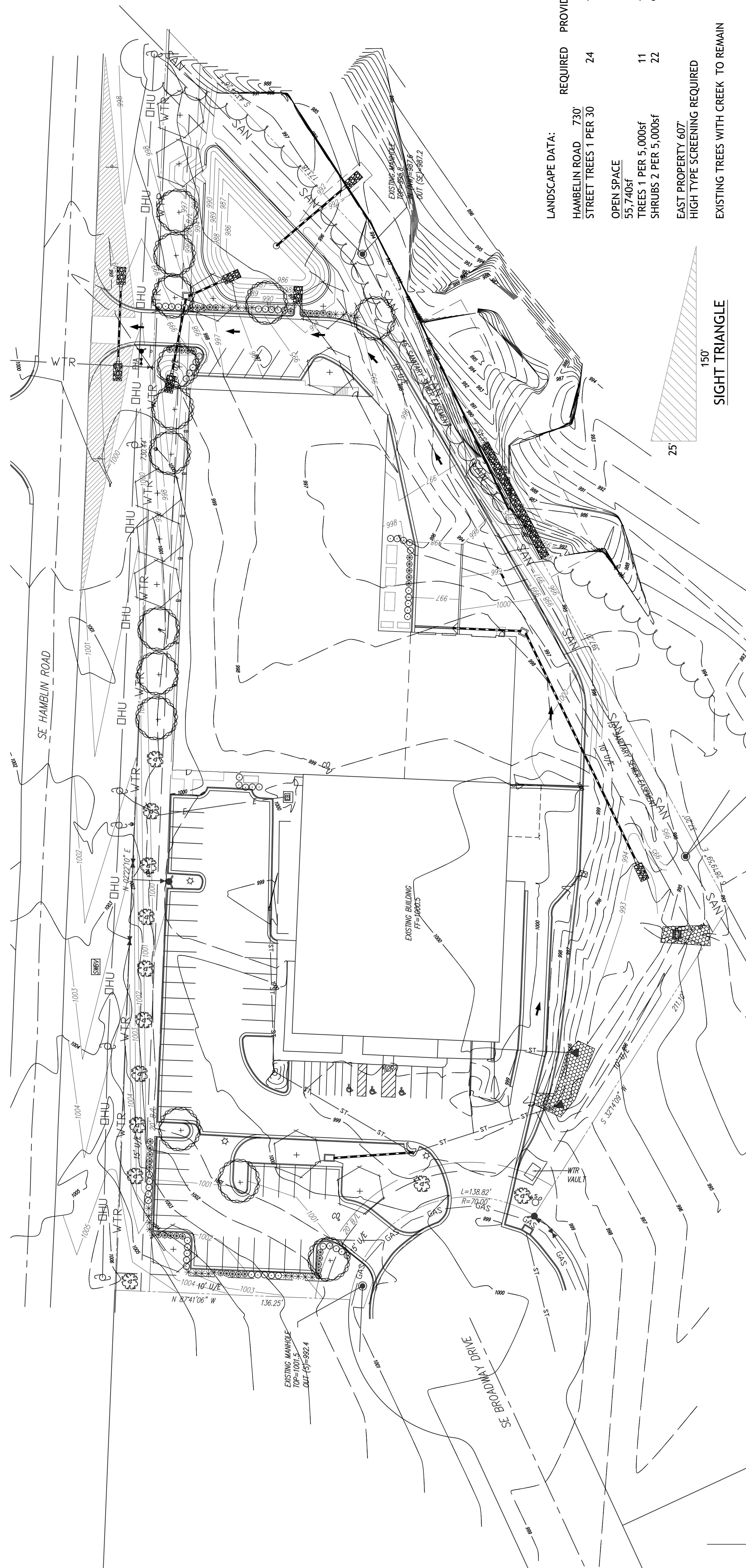
SCALE: AS SHOWN
DRAWING NO. 181103E
DATE 10/06/13
OCTOBER 12, 2018
PROJECT: HIGH TECH SOLUTIONS
18063

NO.	BY	CK/APP
1	GO	GO
2	GO	GO
DATE REVISION		
2-28-19	TREE CALLER	
5-13-19	MECHANICAL UNITS IN REAR	



HT SOLUTIONS
LEES SUMMIT - JACKSON COUNTY - MISSOURI

LANDSCAPE PLAN



LANDSCAPE DATA:

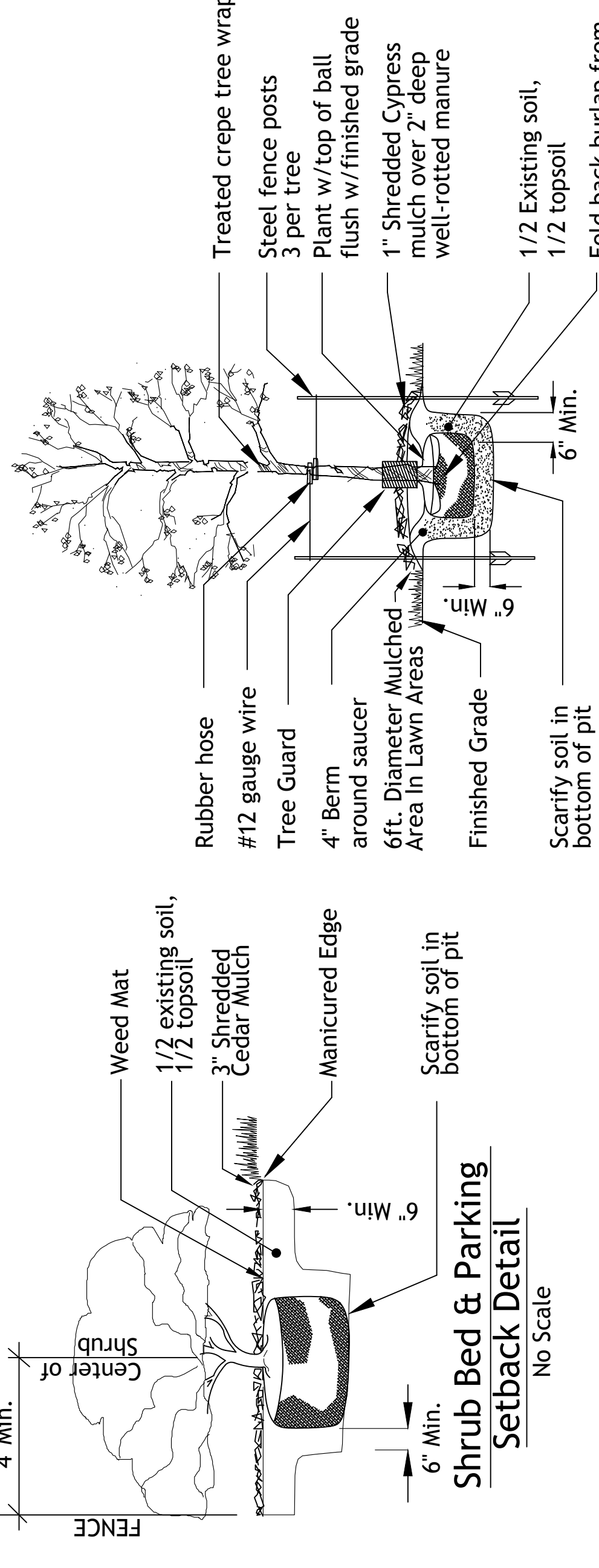
HAMBELIN ROAD .730'	REQUIRED	PROVIDED	EXISTING
STREET TREES 1 PER 30	24	14	10
OPEN SPACE			
TREES 1 PER 5,000sf	11	11	
SHRUBS 2 PER 5,000sf	22	95	

EAST PROPERTY 607
HIGH TYPE SCREENING REQUIRED
EXISTING TREES WITH CREEK TO REMAIN

Shrub List Symbol	Quantity	Common Name	Botanical Name	Size	Condition	Spacing
⊙	50	Seagreen Juniper	Juniperus Chinensis 'Seagreen'	18"-24"sp.	Cont.	4'o.c.
⊗	40	Dwarf Winged Euonymus	Euonymus Alatus 'Compactus'	18"-24"sp.	Cont.	4'o.c.
⊛	25	Morning Light Maiden Grass	Miscanthos Sinensis 'Morning Light'	3 gal.	Cont.	4'o.c.

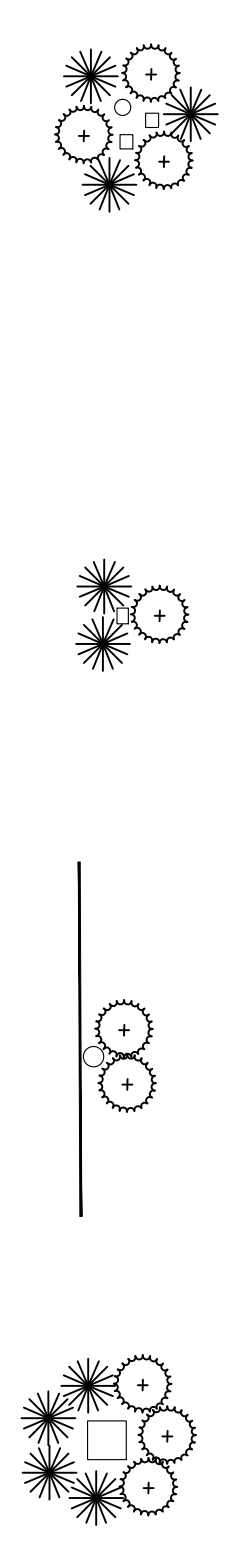
Tree List Symbol	Quantity	Common Name	Botanical Name	Size	Condition	Spacing
⊕	14	October Glory Maple	Acer Rubrum 'October Glory'	3" cal	BB	As Shown
⊕	9	Skyline Honeylocust	Gleditsia Triacanthos 'Skyline'	3" cal	BB	As Shown

LANDSCAPE NOTES
CONTRACTOR REQUIRED TO LOCATE ALL UTILITIES BEFORE INSTALLATION TO BEGIN.
Contractor shall verify all landscape material quantities and shall report any discrepancies to the Landscape Architect prior to installation.
No plant material substitutions are allowed without Landscape Architect or Owners approval.
Contractor shall guarantee all landscape work and plant material for a period of one year from date of acceptance of the work by the Owner. Any plant material which dies during the one year guarantee period shall be replaced by the contractor during normal planting seasons.
Contractor shall be responsible for maintenance of the plants until completion of the job and acceptance by the Owner.
Successful landscape contractor shall be responsible for design that complies with minimum irrigation requirements, and installation of an irrigation system. Irrigation system to be approved by the owner before starting any installation.
All plant material shall be specimen quality stock as determined in the "American Standards For Nursery Stock" published by The American Association of Nurseryman, free of plant diseases and pest, or typical growth of the species and having a healthy, normal root system.
Sizes indicated on the plant list are the minimum, acceptable size. In no case will sizes less than specified be accepted.
All shrub beds within lawn areas to receive a manicured edge.
All shrub beds shall be fertilized & sodded with a Turf-Type-Tall Fescue seed blend.
All seed areas shall be hydro-seeded with a Turf-Type-Tall Fescue seed blend.



Shrub Bed & Parking Setback Detail
Typical Utility Box Screening Details
Tree Planting Detail

No Scale
No Scale
No Scale

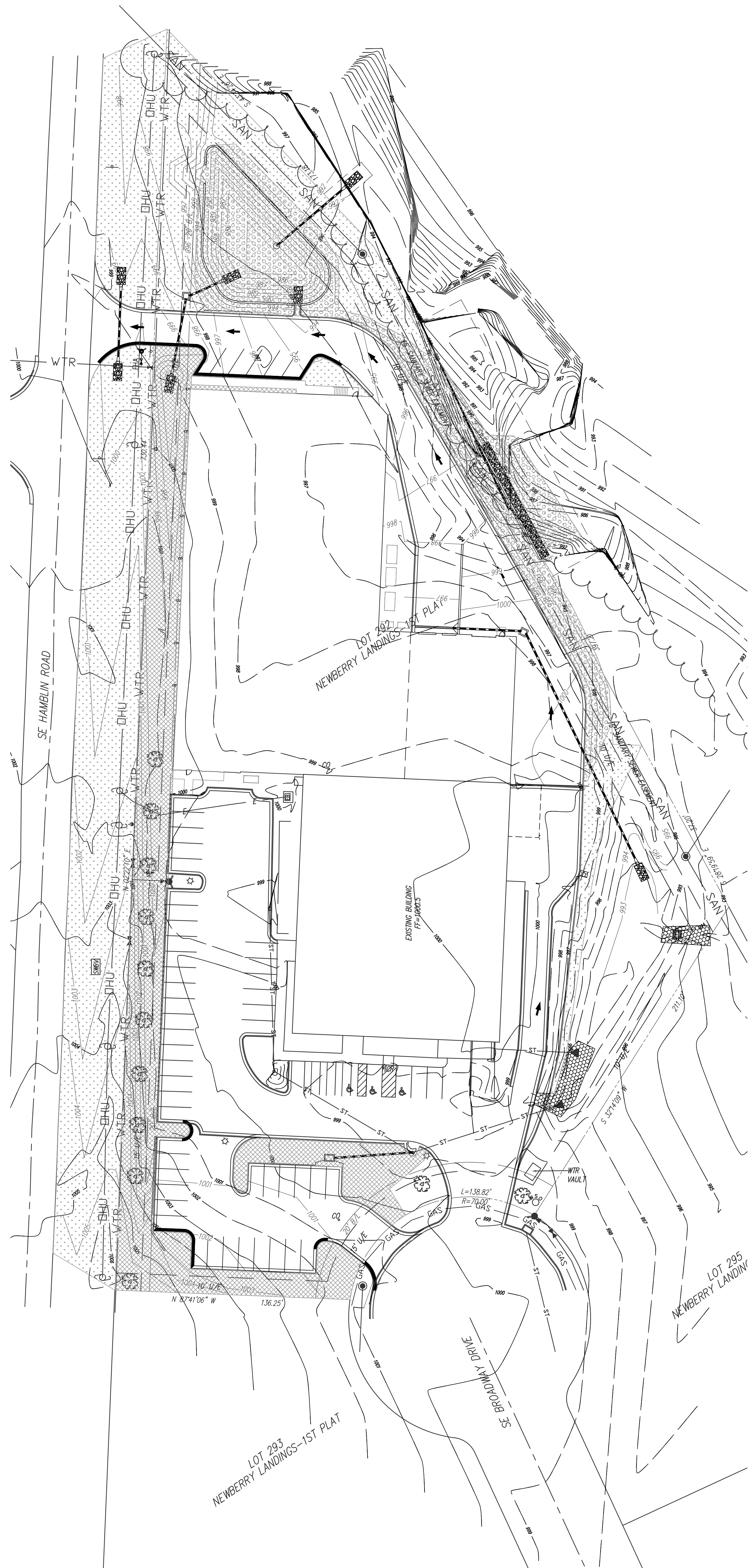
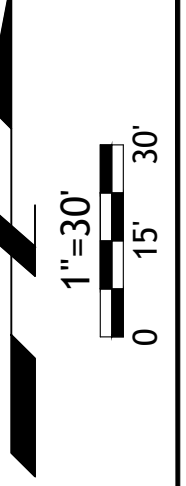


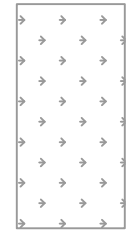
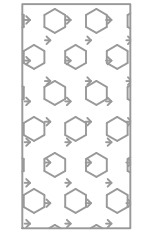
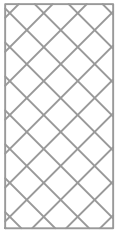
UTILITY BOXES SHALL BE CLUSTERED AS MUCH AS POSSIBLE

NO.	BY	DATE	REVISION
1	GO	2-28-19	TREE CALLER
GO			
GO			



HT SOLUTIONS
LEE'S SUMMIT - JACKSON COUNTY - MISSOURI



-  SEED AREA 47,040sf
 -  TURF REINFORCEMENT MAT 12,500sf
 -  SOD AREA 16,907sf
- SEED AND SOD NOTES:
ALL SOD AREAS TO BE FERTILIZED & SODDED WITH A TURF-TYPE-TALL FESCUE SEED BLEND.
ALL SEED AREAS SHALL BE HYDRO-SEEDED WITH A TURF-TYPE-TALL FESCUE SEED BLEND.

LOT 293
NEWBERRY LANDINGS-1ST PLAT

LOT 295
NEWBERRY LANDING



ENGINEER:
JSC
 MO BOARD 2020/2019/18 AS CONSULTANT
 1811 W BLUE PARKWAY, SUITE 100, JACOBSVILLE, MISSOURI 64501
 314.271.1233
 www.jscengineering.com

High Tech Solutions
 Site Lighting for:
 Lee's Summit, Jackson County, Missouri

DATE ISSUED:
 12.11.18
 REVISIONS:

PROJECT NUMBER:
 JSC 18-191

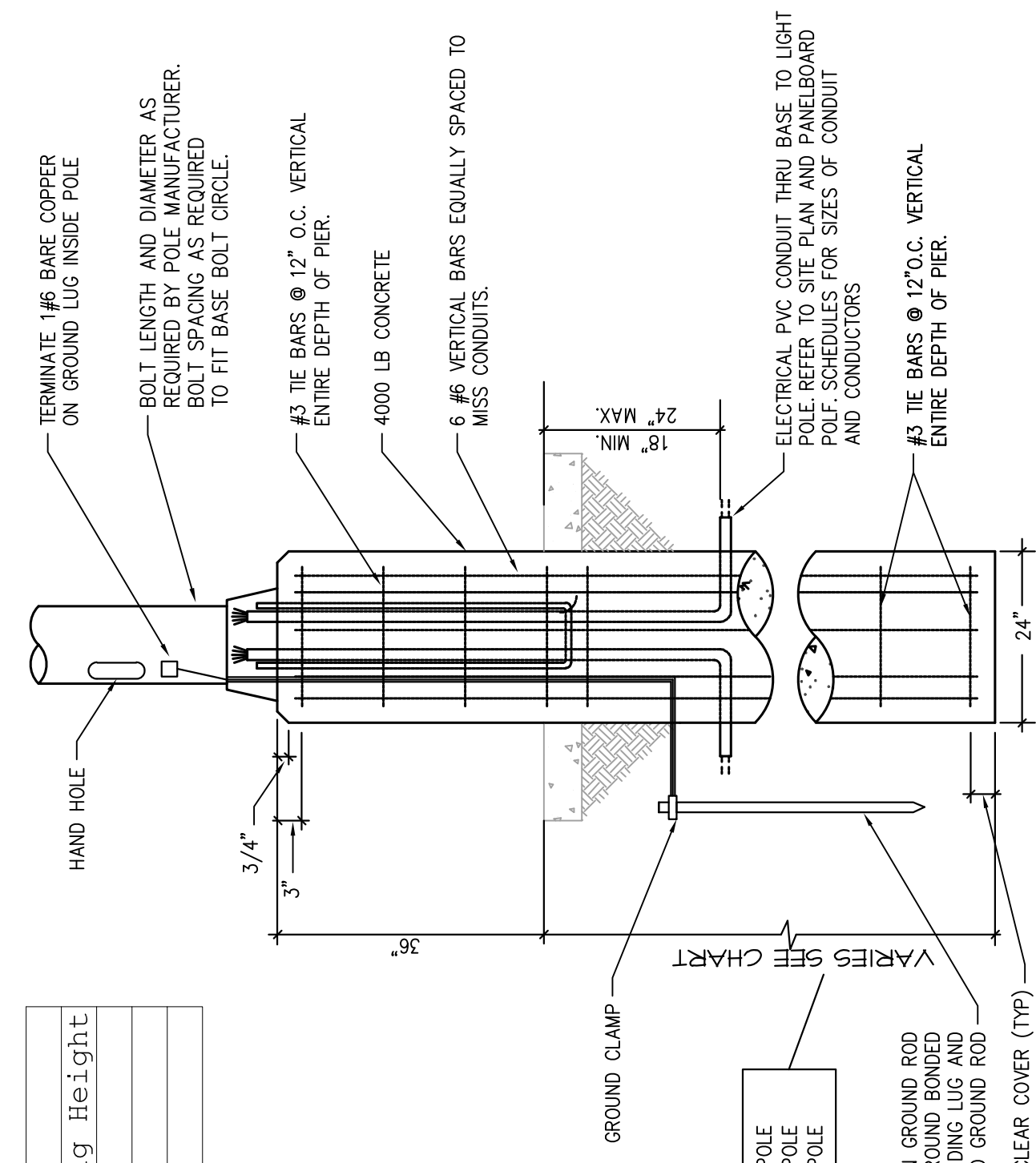
SHEET NUMBER
 SITE
 PHOTOMETRIC
 ES1

ELECTRICAL SPECIFICATIONS

1. ALL CONDUCTORS SHALL BE THIN COPPER ABOVE GRADE. XHHW-2 BELOW GRADE, MINIMUM #12 OR LARGER AS REQUIRED OR SHOWN.
2. ALL SERVICE WIRING, EXPOSED TO WEATHER, OR WIRING BELOW GRADE, SHALL BE IN RIGID GALVANIZED CONDUIT OR SCH. 40 PVC.
3. ALL OTHER WIRING SHALL BE IN EMT, SCHEDULE 40 PVC OR MC CABLE UNLESS PROTECTED AND ENCLOSED WITHIN BUILDING MATERIALS, IN WHICH CASE TYPE NM CABLE MAY BE USED.
4. THE ENTIRE SYSTEM SHALL BE ELECTRICALLY CONTINUOUS AND PROPERLY GROUNDED EVERY FEEDER AND BRANCH CONDUIT SHALL HAVE CODE SIZED GREEN INSULATED GROUND CONDUCTOR.
5. FURNISH AND INSTALL ALL LIGHTING FIXTURES, LAMPS, FUSES, BREAKERS, ETC. TO COMPLETE THE BRANCH CIRCUITS INDICATED.
6. ALL 120V, 200A LIGHTING CIRCUITS REQUIRING MORE THAN 100' OF CONDUCTORS (ONE WAY) SHALL BE #10 CONDUCTORS, MINIMUM.

KEYED PLAN NOTES

1. CIRCUIT THRU 20-2 BREAKER IN BUILDING ELECTRICAL PANEL WIRE THRU TIMEK/PHOTOCELL.

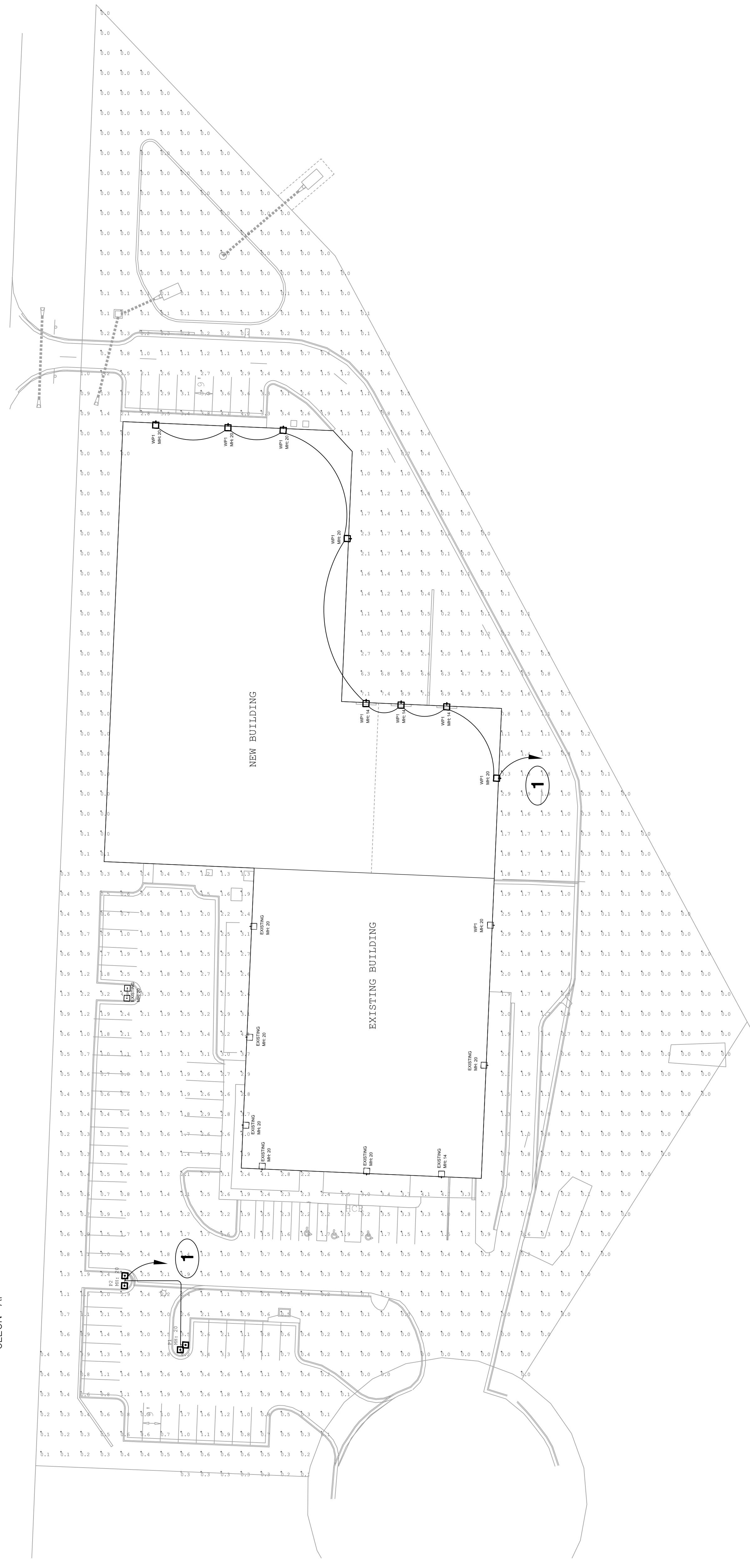
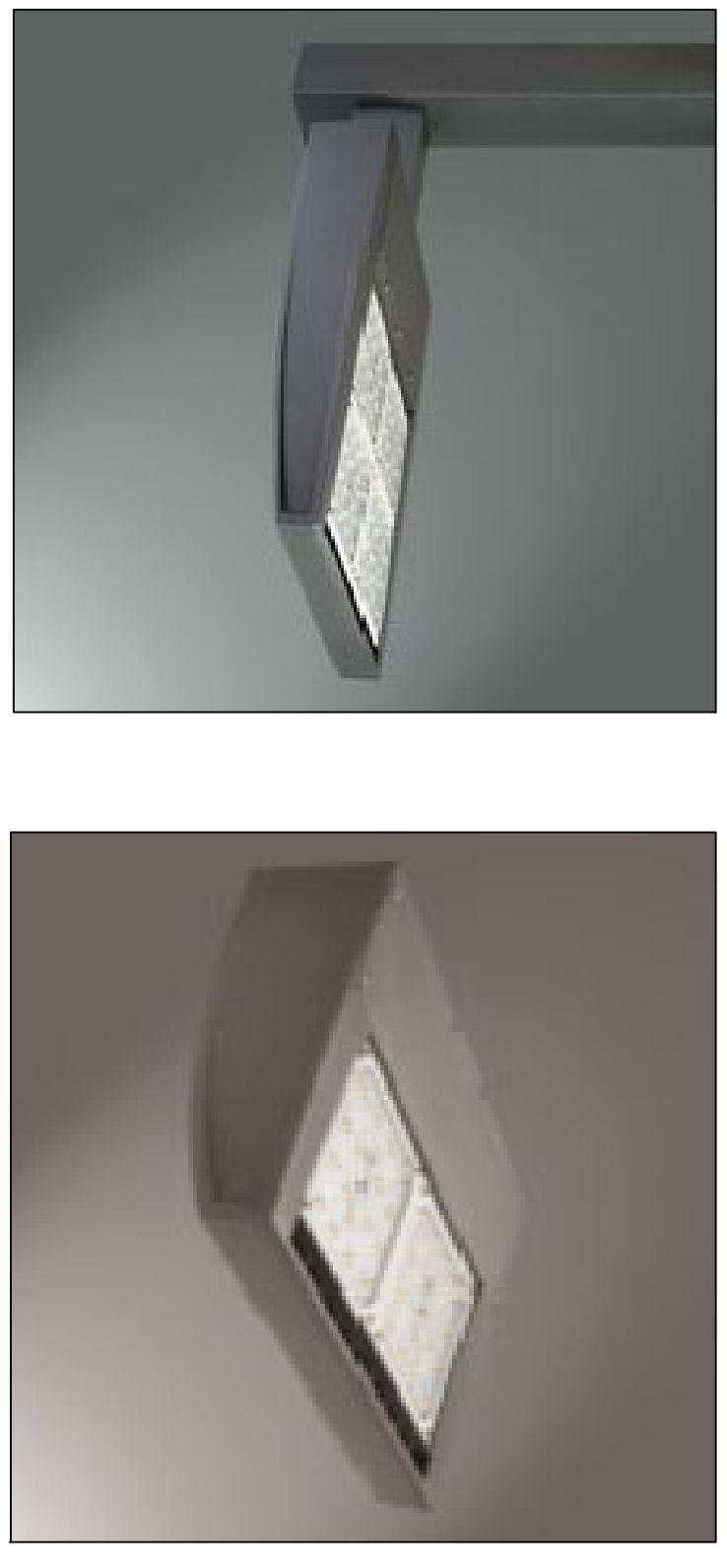


POLE FOUNDATION DETAIL
 SCALE: NONE

Luminaire Schedule	Qty	Label	Arrangement	LLF	Description	Lum. Watts	Arr. Watts	Mounting Height
□	8	WP1	SINGLE	0.910	GWC-AF-01-LED-E1-SL3	59	59	See MH
□	2	P2	BACK-BACK	0.910	GLEON-AF-01-LED-E1-T4FT	59	118	See MH
⊗	1	P1	2 @ 90 DEGREES	0.910	GLEON-AF-01-LED-E1-T4FT	59	118	See MH

Calculation Summary	Units	Avg	Max	Min	Avg/Min	Max/Min
Site Plan	Fc	0.97	8.9	0.0	N.A.	N.A.

LPD Area Summary	Total Watts	LPD
Site Plan	156330	0.008



SITE LIGHTING PLAN
 SCALE: 1" = 30'-0"