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CIVIL SUBMITTAL

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LANDSCAPE PLAN

SITE LIGHTING PLAN AND PHOTOMETRIC GRID

HT Solutions

LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

FINAL DEVELOPMENT PLAN

BUILDING EXPANSION

UTILITIES

City of Lee's Summit
Department of Public Works
220 SE Green
Lee's Summit, Mo.
816-969-1800

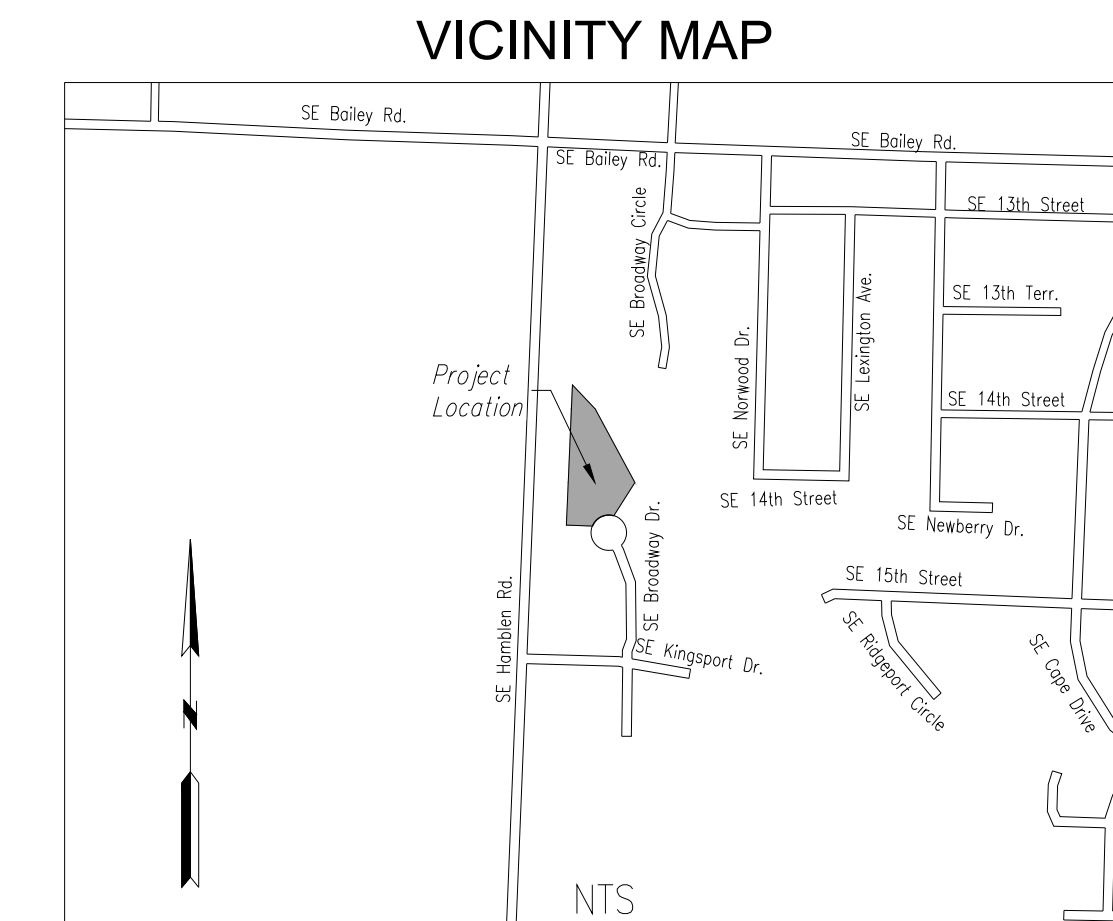
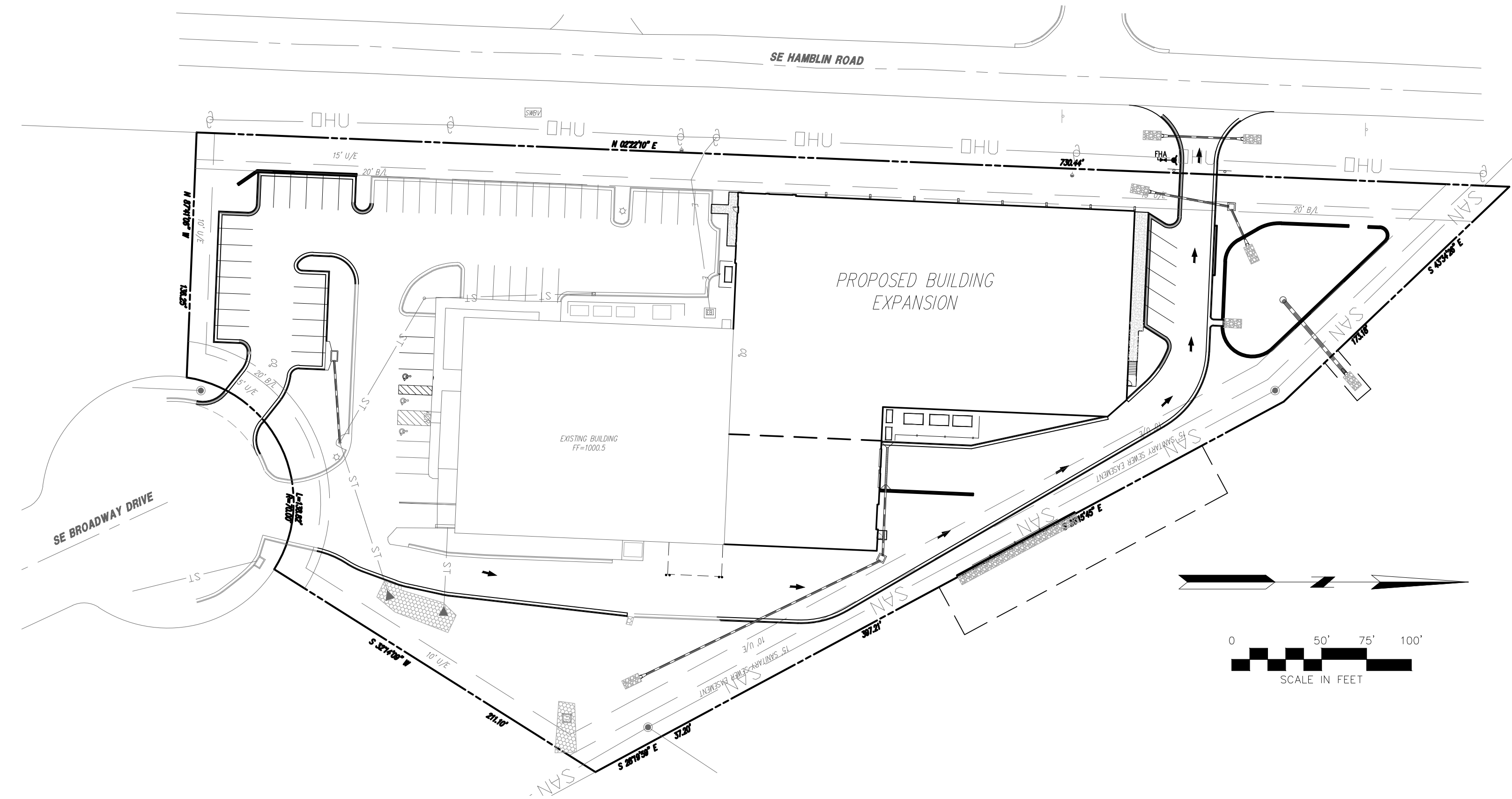
KCPL
401 SE Bailey Road
Lee's Summit, Mo. 64081
816-347-4320

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

AT&T
Craig Perkins
500 E. 8th Street
Kansas City, MO 64106
816-275-2721

Comcast
New Construction Hotline
866-771-2281

Missouri One Call
1-800-344-7483



GENERAL NOTES:

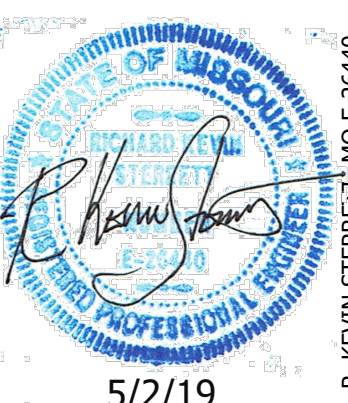
1. The underground utilities shown herein have been plotted from available information and do not necessarily reflect the actual existence, or nonexistence, size, type, number, or locations of these or other utilities. The contractor shall be responsible for verifying the actual locations of all underground utilities, shown or not shown, and said 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.
2. 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.
3. Prior to submittal of construction bids, the Contractor shall be required to visit the site to verify existing conditions and proposed improvements.
4. The Contractor shall be responsible for notification and coordination with all Utility Companies.
5. The Contractor shall notify the Engineer immediately of any discrepancies in the plans.
6. All sidewalks shall be ADA compliant.
7. All curb shall be CC-1 unless otherwise noted.
8. 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 side of site on SE Broadway cul-de-sac.
N: 992422.0300
E: 2829012.5430
TOP ELEV. 1001.50

NO.	BY	REVISION	DATE
1	EDH	Revised per city comments dated 1/30/19	3/28/19
2	EDH	Revised per city comments dated 4/16/19	4/24/19
3	EDH	Revised per Mechanical engineers revisions	5/7/19



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HG

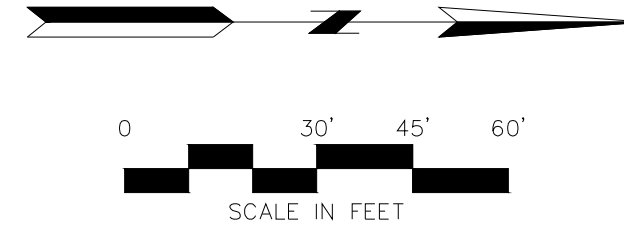
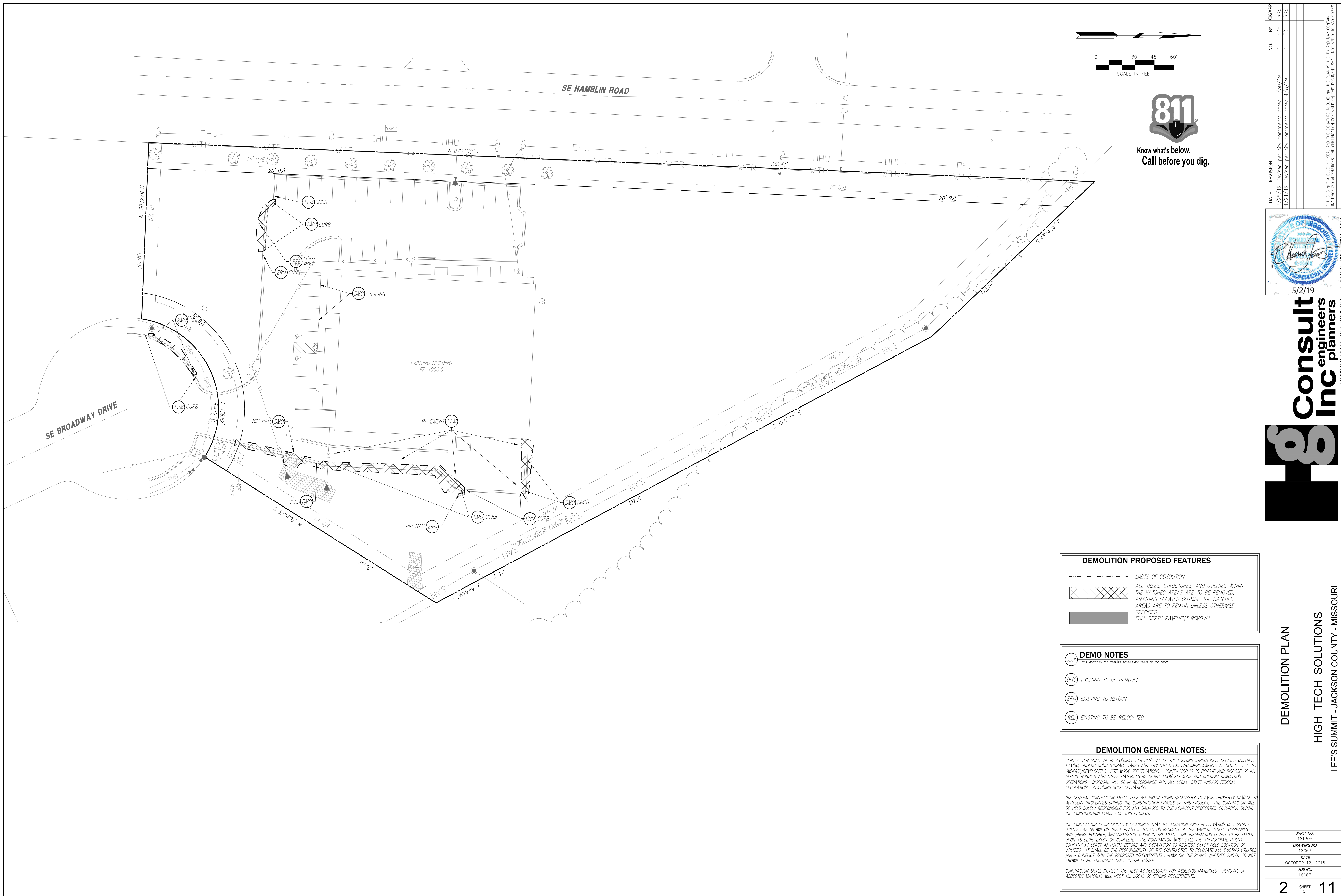
CORPORATE LICENSE NO. E2010005873

COVER SHEET

HIGH TECH SOLUTIONS

LEE'S SUMMIT - JACKSON COUNTY - MISSOURI

XREF NO. 181508	
DRAWING NO. 1806.3	
DATE OCTOBER 12, 2018	
JOB NO. 1806.3	
1	11



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

DEMO NOTES	
(XXX)	Items labeled by the following symbols are shown on this sheet.
(DMO)	EXISTING TO BE REMOVED
(ERM)	EXISTING TO REMAIN
(REL)	EXISTING TO BE RELOCATED

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. DISPOSAL WILL BE IN ACCORDANCE WITH ALL LOCAL, STATE AND/OR FEDERAL REGULATIONS GOVERNING SUCH OPERATIONS.

THE GENERAL CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES DURING THE CONSTRUCTION PHASES OF THIS PROJECT. THE CONTRACTOR WILL 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 RELIED UPON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY 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 WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS, WHETHER SHOWN OR NOT SHOWN AT NO ADDITIONAL COST TO THE OWNER.

CONTRACTOR SHALL INSPECT AND TEST AS NECESSARY FOR ASBESTOS MATERIALS. REMOVAL OF ASBESTOS MATERIAL WILL MEET ALL LOCAL GOVERNING REQUIREMENTS.

NO.	BY	CHK/APP
1	EDH	RKS
1	EDH	RKS

DATE	REVISION
3/28/19	Revised per city comments dated 1/30/19
4/24/19	Revised per city comments dated 4/16/19

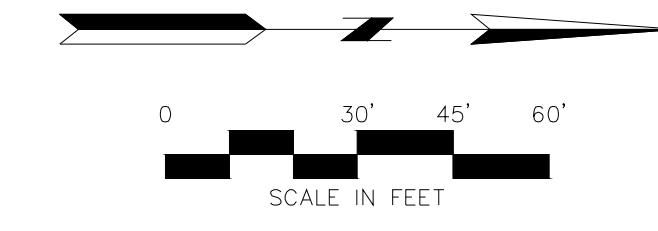


5/2/19
 R. KEVIN STERRETT, NO. E-26440

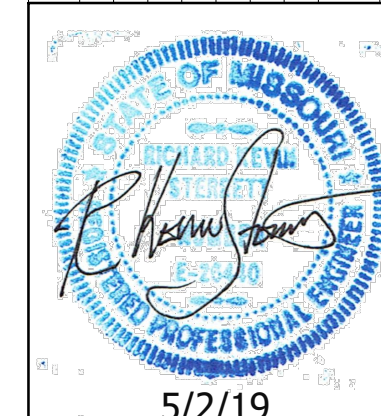
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DEMOLITION PLAN
 HIGH TECH SOLUTIONS
 LEE'S SUMMIT - JACKSON COUNTY - MISSOURI

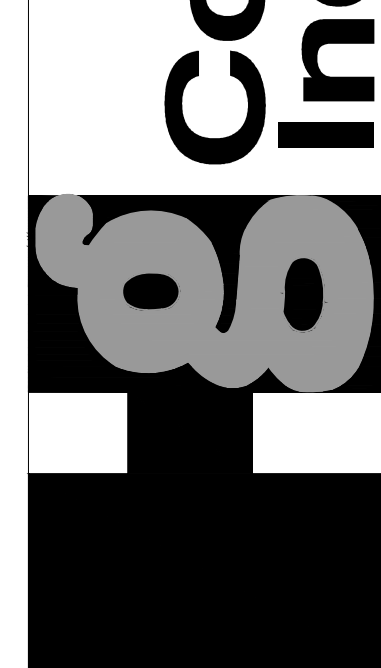
XREF NO.	181.006
DRAWING NO.	1806.3
DATE	OCTOBER 12, 2018
JOB NO.	1806.3



NO.	BY	DATE	REVISION
1	EDH	1/20/19	Revised per city comments dated 1/20/19
2	EDH	4/24/19	Revised per city comments dated 4/16/19



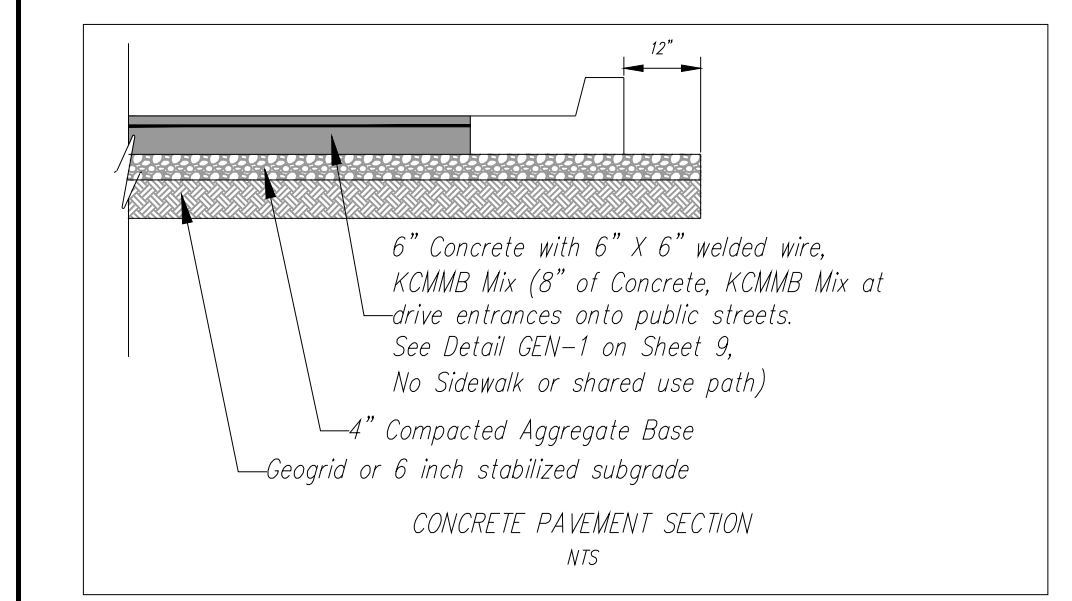
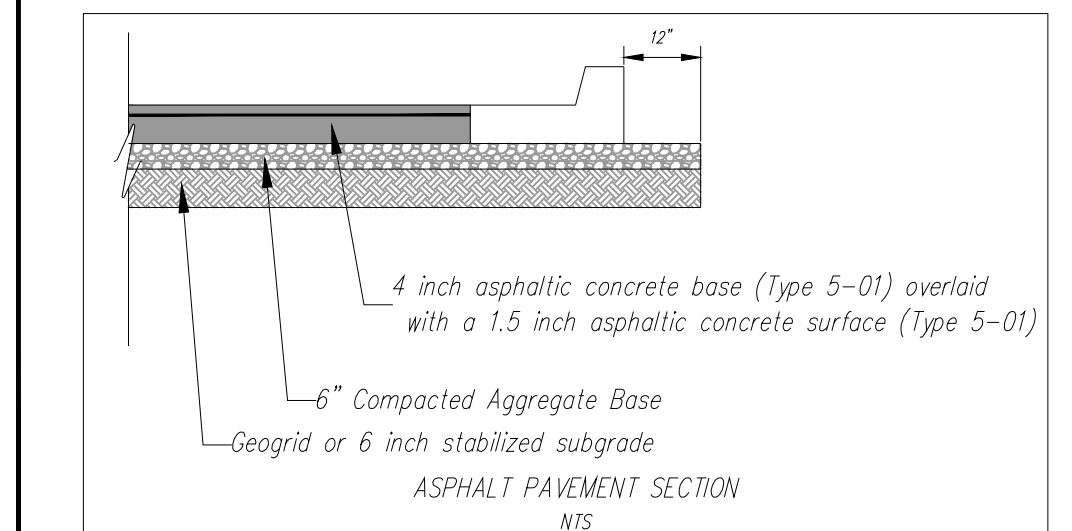
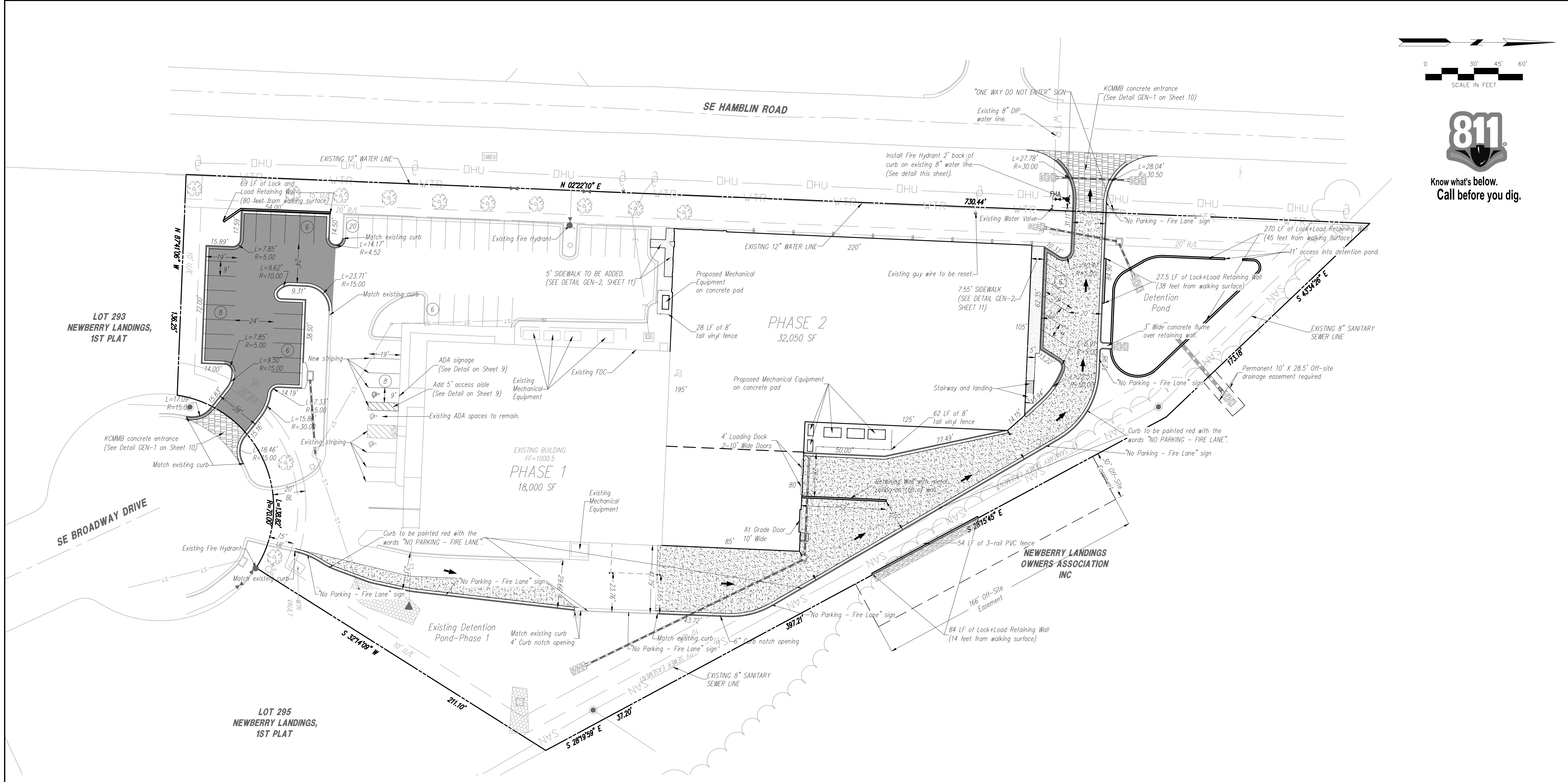
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OVERALL SITE PLAN

HIGH TECH SOLUTIONS
 LEES SUMMIT - JACKSON COUNTY - MISSOURI

XREF NO.	181.508
DRAWING NO.	1806.3
DATE	OCTOBER 12, 2018
JOB NO.	1806.3
SHEET	11



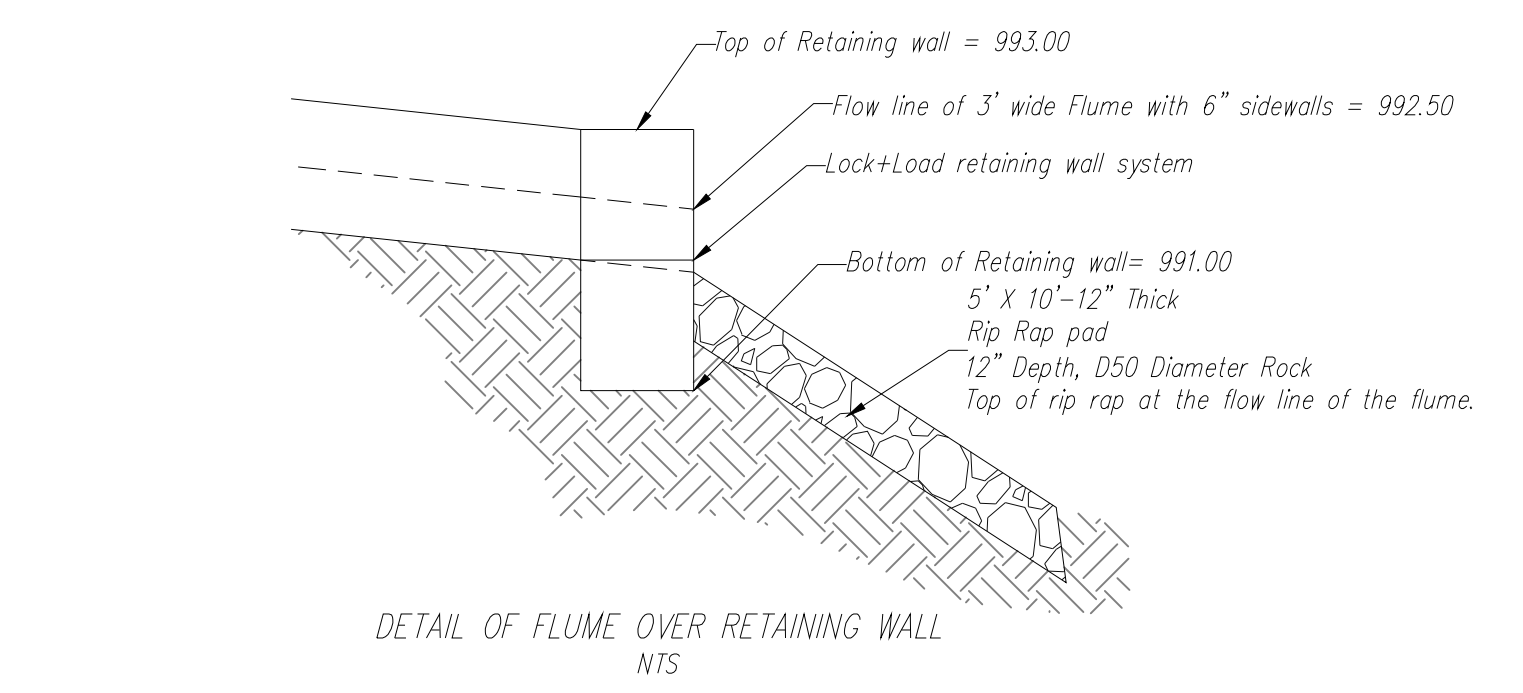
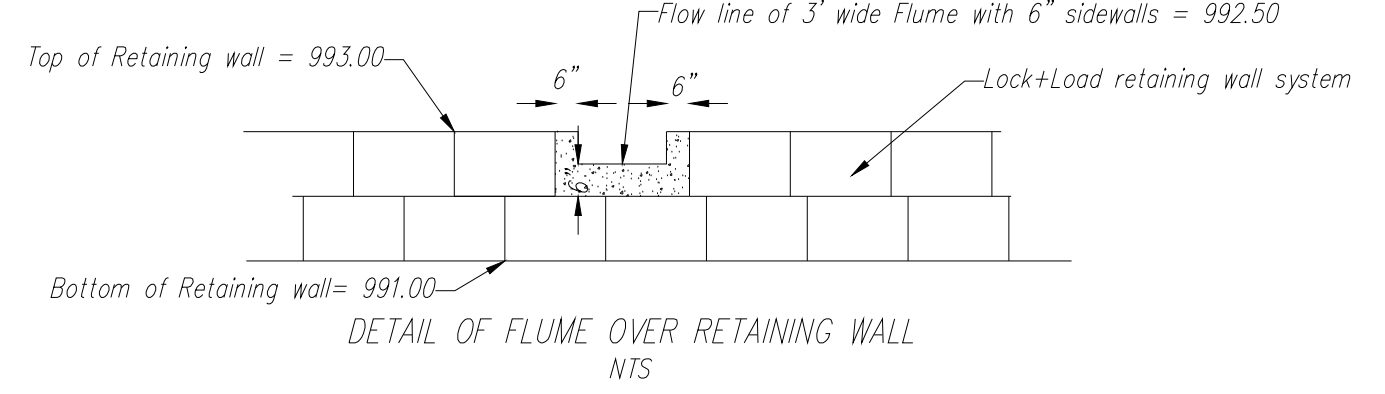
- SITE INFORMATION:**
 Property Description: Lot 292, Newberry Landings-1st Plat
 Site Address: 1440 SE Broadway Dr.
 Zoning: Planned Industrial
 Lot Area: 156,457 SF (3.59 AC)
 F&C: 31 to 1
 Impervious Coverage: 103,772 SF, 66%
- Parking Space Required:**
 Office: 4 spaces/1000 SF = 30 spaces
 Warehouse: 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.
 Parking Spaces Provided: 60 spaces
 ADA Spaces Required/Provided: 3/3
 Standard Space Size: 9'x19'
 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)

EXISTING BUILDING 1 - PHASE 1

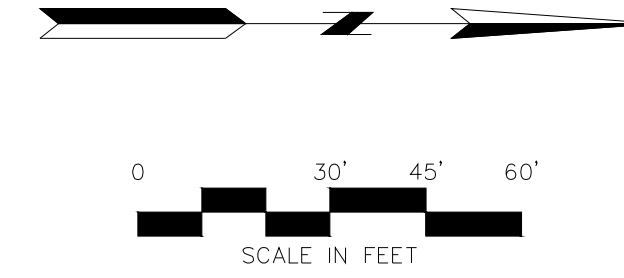
Building 1	Office	Mfg	Warehouse	Total
Main Floor	3,670	10,800	3,530	18,000
Mezzanine	1,980		2,340	4,320
Total SF	5,650	10,800	5,870	22,320

PROPOSED BUILDING EXPANSION - PHASE 2

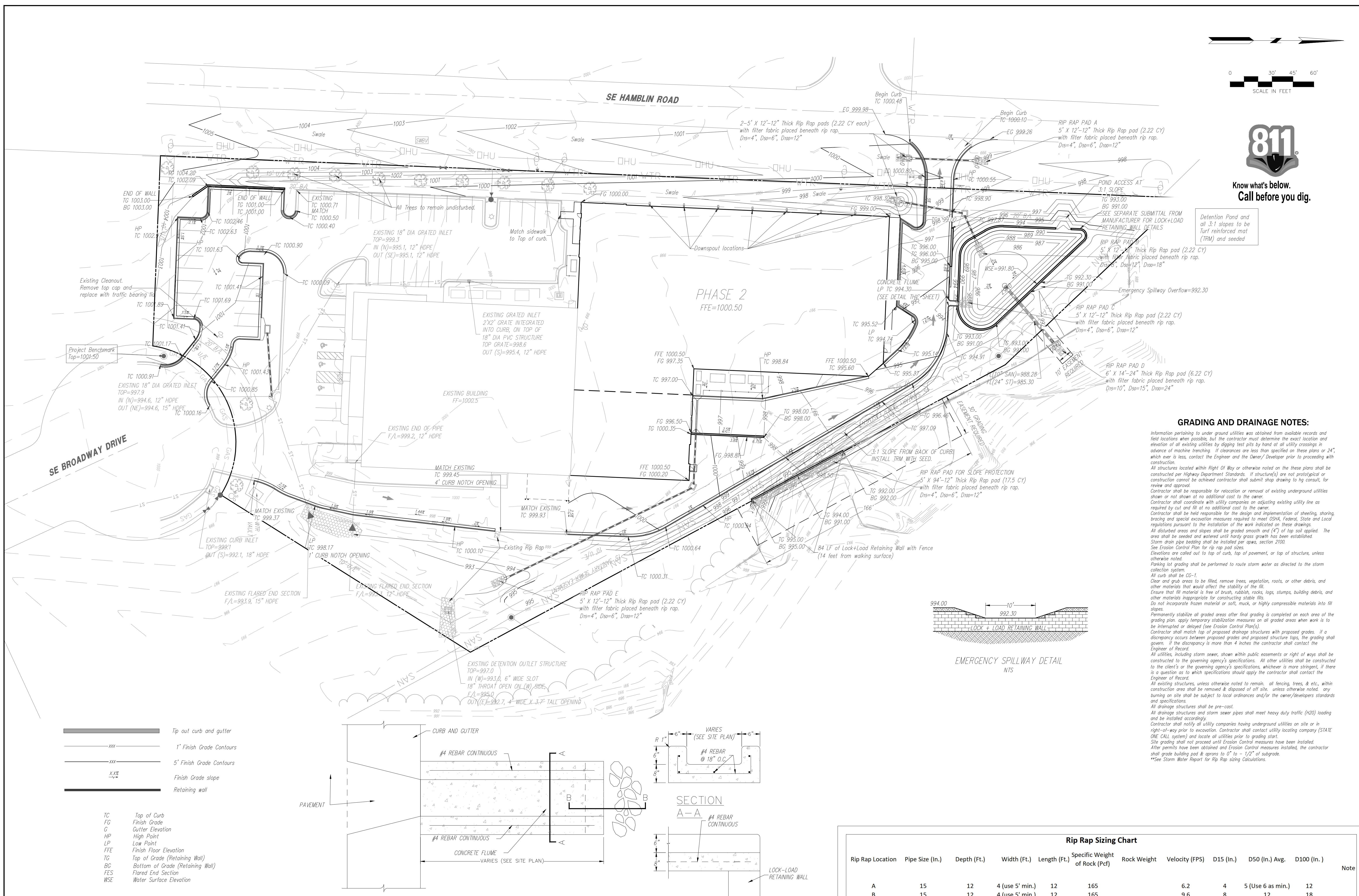
Building 2	Office	Mfg	Warehouse	Total
Main Floor	900	25,300	5,900	31,150
Mezzanine	900			900
Total SF	1,800	25,300	5,900	32,050



- NOTES:**
- All 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.
 - S11 fence shall be installed at the perimeter of all disturbed areas within the site during construction for erosion control.
 - 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 CG-1 or integral with the sidewalk.
 - A handicap 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 plane per FIRM Panel 438 of 625, Map No. 29095C04386, dated Jan. 20, 2017.
 - ADA accessible ramp to have detectable surface on public handicap ramps only. Detectable surfaces do not need to be installed on the ramps at commercial drives. See KCAPWA web site for details.
 - Building coordinates are pointed to or measured at the outside face of building foundation corners. Contractor shall confirm building dimensions with structural drawings.
 - Other coordinates are pointed to or measured from the front of curb, back of wall or property corner location.
 - Contractor shall coordinate building entrances, egresses, 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.



Know what's below.
Call before you dig.



GRADING AND DRAINAGE NOTES:

Information pertaining to underground utilities was obtained from available records and field locations when possible, but the contractor must determine the exact location and elevation of all existing utilities by digging test pits by hand at all utility crossings in advance of machine trenching. If clearances are less than specified on these plans or 24", which ever is less, contact the Engineer and the Owner/Developer prior to proceeding with construction.

All structures located within Right Of Way or otherwise noted on these plans shall be constructed per Highway Department Standards. If structure(s) are not prototypical or construction cannot be achieved contractor shall submit shop drawing to hg consult, for review and approval.

Contractor shall be responsible for relocation or removal of existing underground utilities shown or not shown at no additional cost to the owner.

Contractor shall coordinate with utility companies on adjusting existing utility line as required by cut and fill at no 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.

All disturbed areas and slopes shall be graded smooth and 1" of top soil applied. The area shall be seeded and watered until hardy grass growth has been established.

Storm drain pipe bedding shall be installed per apwa, section 2100.

See Erosion Control Plan for rip rap pad sizes.

Elevations are called out to top of curb, top of pavement, or top of structure, unless otherwise noted.

Parking lot grading shall be performed to route storm water as directed to the storm collection system.

All curb shall be CG-1.

Clear and grub areas to be filled, remove trees, vegetation, roots, or other debris, and other materials that would affect the stability of the fill.

Ensure that fill material is free of brush, rubbish, rocks, logs, stumps, building debris, and other materials inappropriate for constructing stable fills.

Do not incorporate frozen material or soft, muck, or highly compressible materials into fill slopes.

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 Plans).

Contractor shall match top of proposed drainage structures with proposed grades. if a discrepancy occurs between proposed grades and proposed structure tops, the grading shall govern. if the discrepancy is more than 4 inches the contractor shall contact the Engineer of Record.

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 is a question as to which specifications should apply the contractor shall contact the Engineer of Record.

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 burning on site shall be subject to local ordinances and/or the owner/developers standards and specifications.

All drainage structures shall be pre-cast.

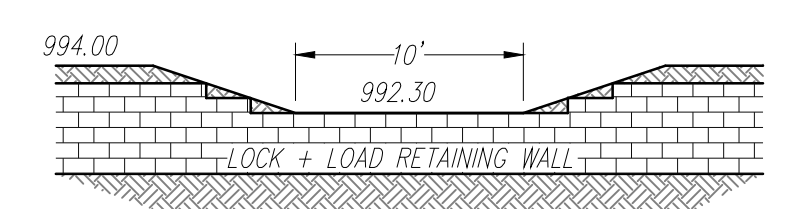
All drainage structures and storm sewer pipes shall meet heavy duty traffic (H20) loading and be installed accordingly.

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 (STATE ONE CALL system) and locate all utilities prior to grading start.

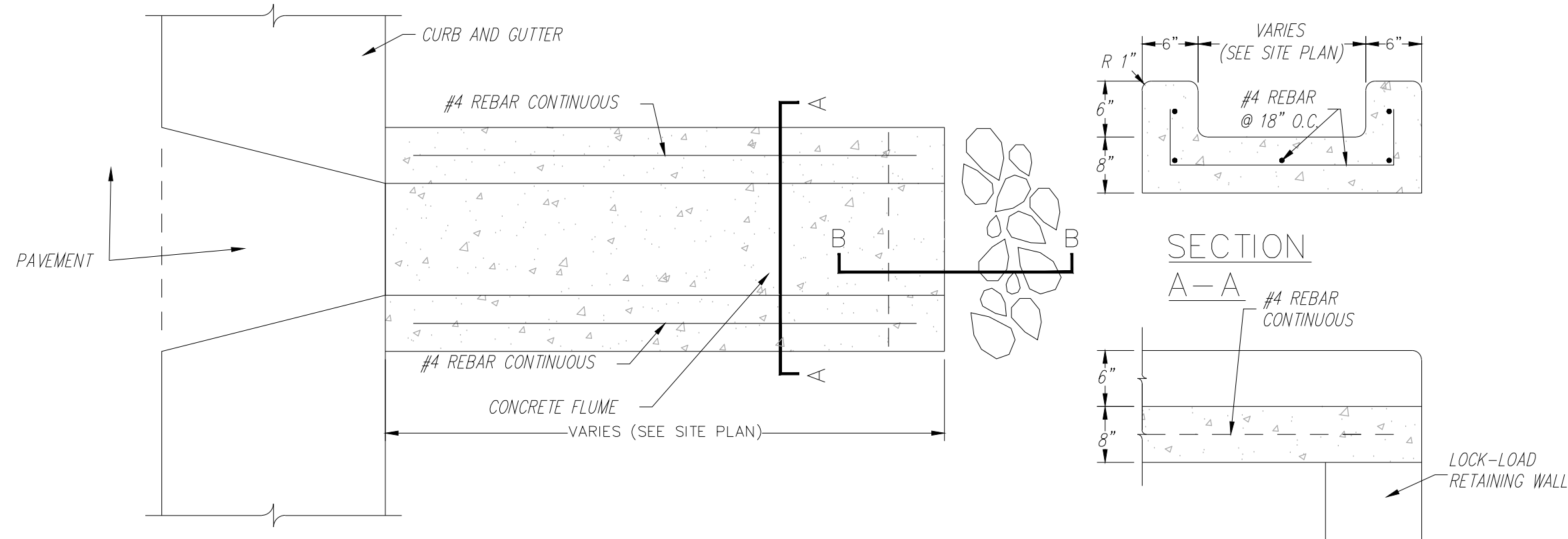
Site grading shall not proceed until Erosion Control measures have been installed.

After permits have been obtained and Erosion Control measures installed, the contractor shall grade building pad & aprons to 0" to 1/2" of subgrade.

**See Storm Water Report for Rip Rap Sizing Calculations.



EMERGENCY SPILLWAY DETAIL
NTS



CONCRETE FLUME
NTS

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		6.2	4	5 (Use 6 as min.)	12	
B	15	12	4 (use 5' min.)	12	165		9.6	8	12	18	
C	Flume (0.75x3')	12	4 (use 5' min.)	12	165		1.8	4	6	12	1
D	8	24	4 (Use 6' min.)	12	165		10.6	10	15	24	
E	12	12	4 (Use 6 min.)	12	165		4.2		2 (Use 6 as min.)		1

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

- Tip out curb and gutter
- 1' Finish Grade Contours
- 5' Finish Grade Contours
- Finish Grade slope
- Retaining wall

- TC Top of Curb
- FG Finish Grade
- C Gutter Elevation
- HP High Point
- LP Low Point
- FFE Finish Floor Elevation
- TG Top of Grade (Retaining Wall)
- BG Bottom of Grade (Retaining Wall)
- FES Flared End Section
- WSE Water Surface Elevation

PROJECT BENCHMARK:
#1 Top of Sanitary Manhole lid at south side of site on SE Broadway cul-de-sac.
N: 992422.0300
E: 2829012.5430
TOP ELEV. 1001.50

NO.	BY	CHK/APP	DATE	REVISION
1	EDH	RKS	7/20/19	
1	EDH	RKS	4/24/19	Revised per city comments dated 4/16/19

5/2/19

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engineers
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OF MISSOURI
PROFESSIONAL ENGINEER

KEVIN STREIBEL, P.E. NO. E-26440

CORPORATE LICENSE NO. E201005872

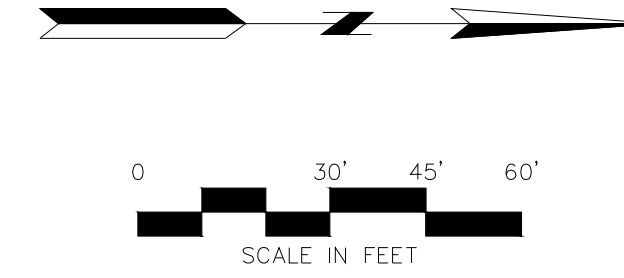
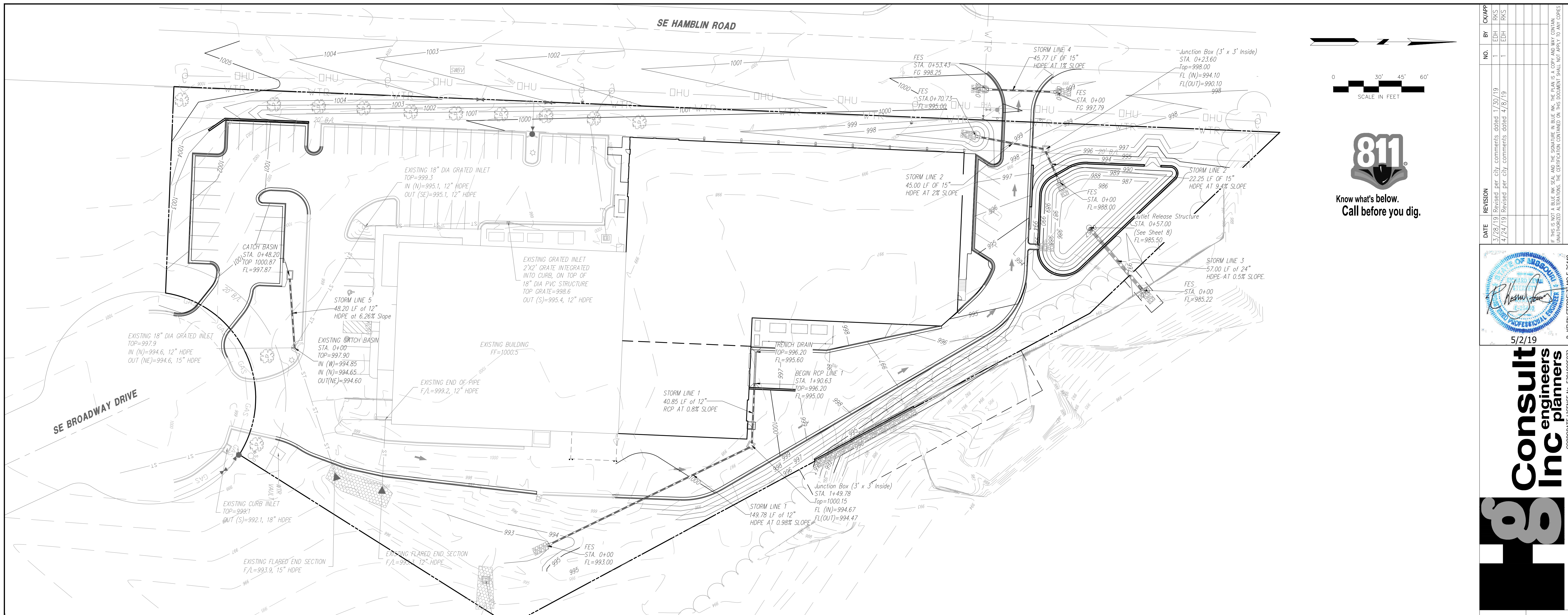
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GRADING PLAN

HIGH TECH SOLUTIONS
LEE'S SUMMIT - JACKSON COUNTY - MISSOURI

DATE	NO.	BY
OCTOBER 12, 2018	1806.3	
	1806.3	

4 SHEET OF 11

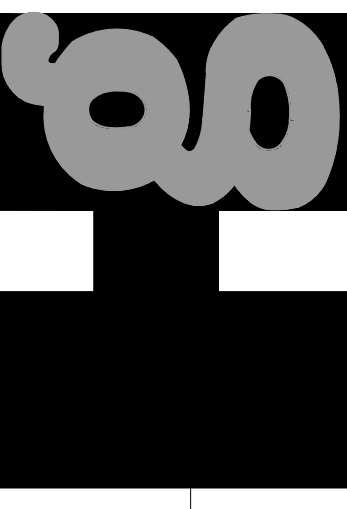


NO.	BY	REVISION	DATE
1	EDH	Revised per city comments dated 1/30/19	3/28/19
2	EDH	Revised per city comments dated 4/16/19	4/24/19



5/2/19

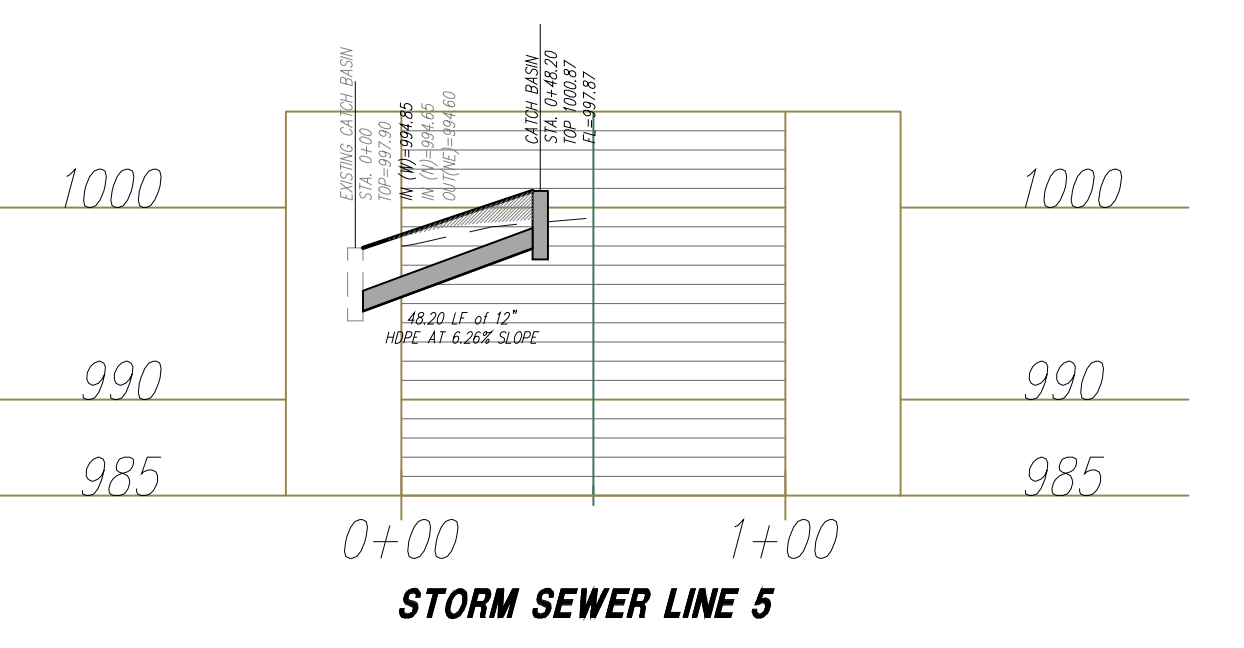
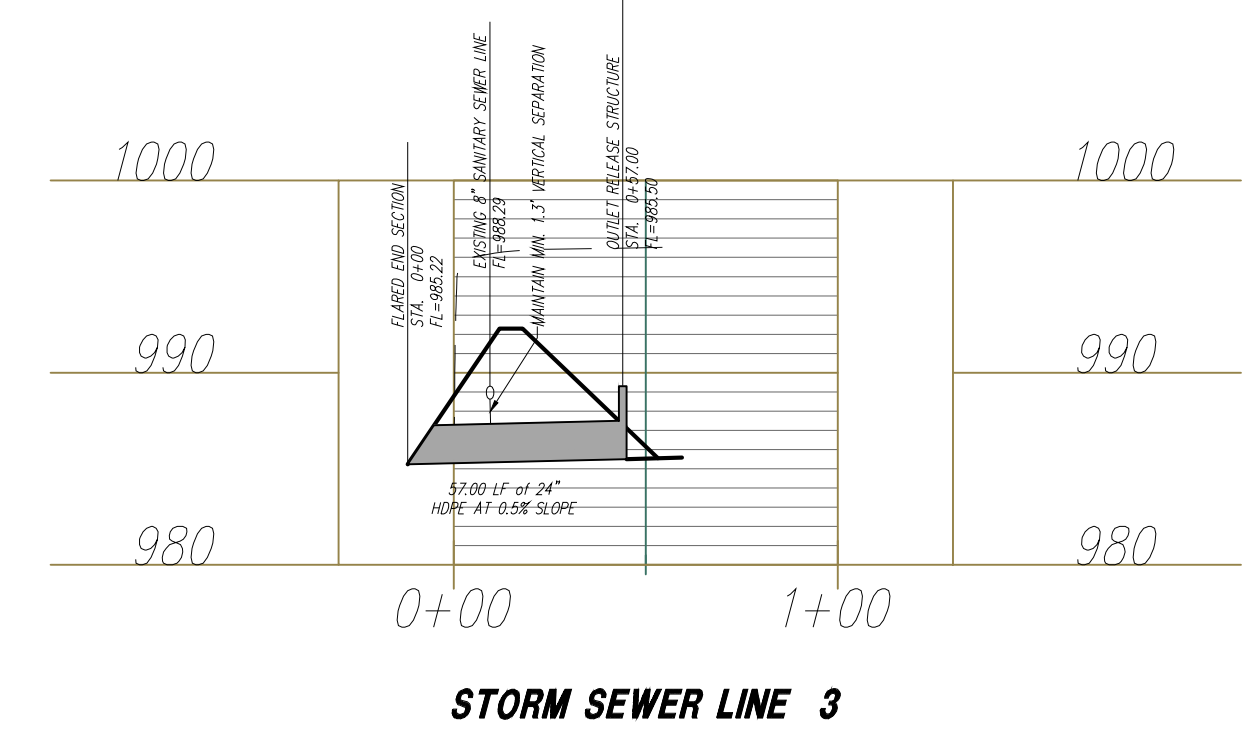
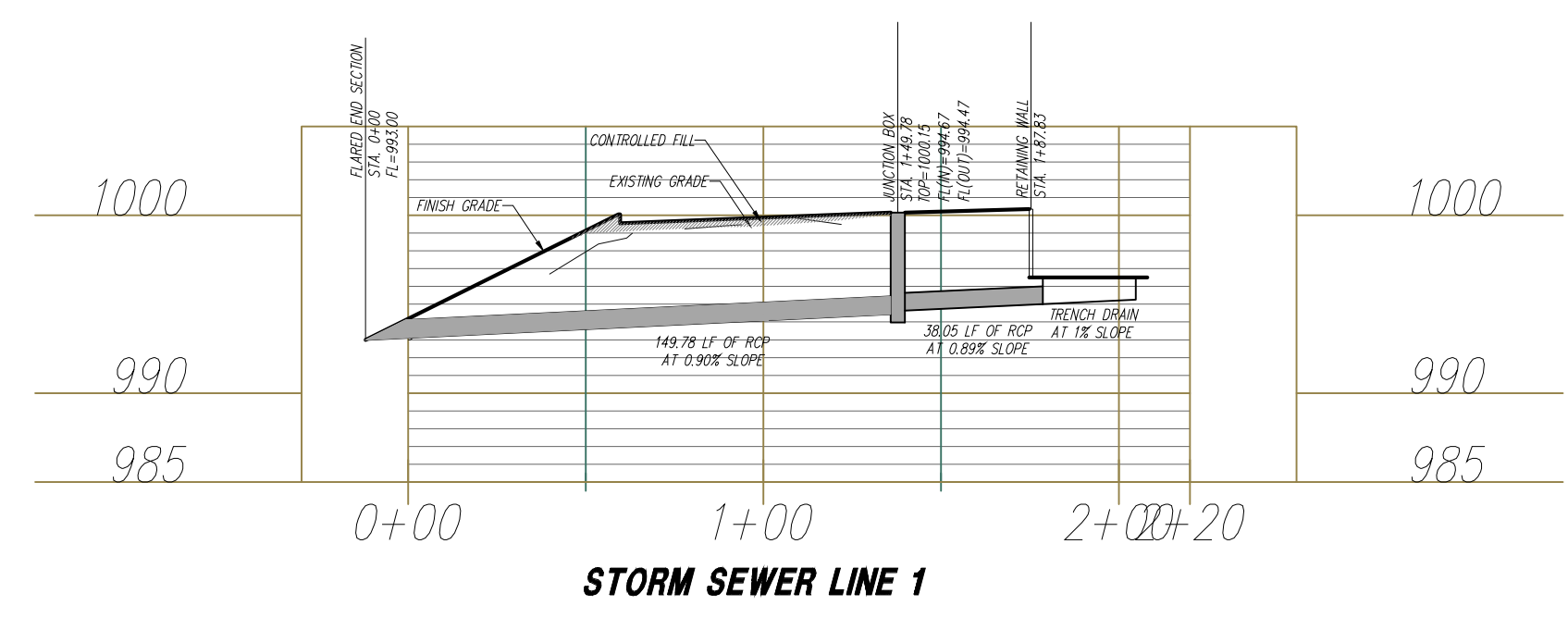
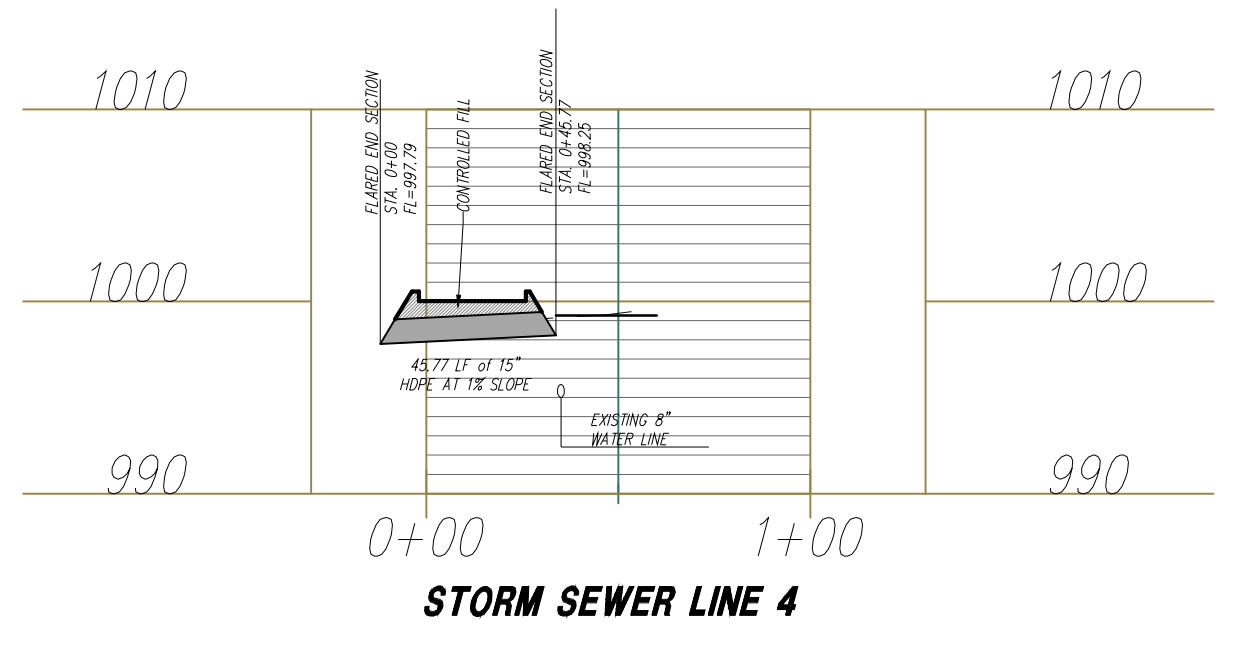
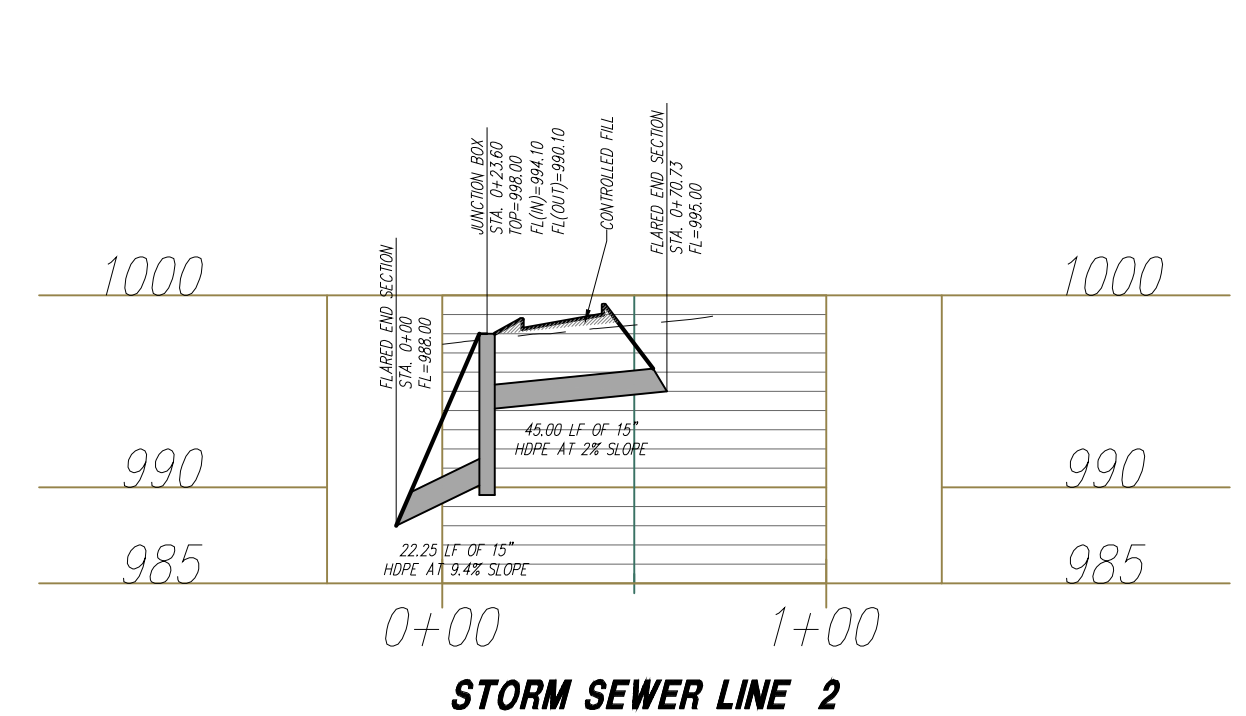
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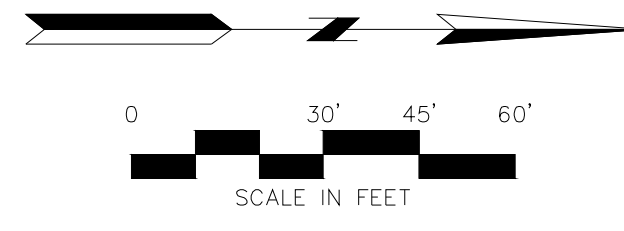


STORM SEWER PLAN
LINE 1, LINE 2, LINE 3, LINE 4 AND LINE 5
HIGH TECH SOLUTIONS
LEE'S SUMMIT - JACKSON COUNTY - MISSOURI

XREF NO.	181.508
DRAWING NO.	1806.3
DATE	OCTOBER 12, 2018
JOB NO.	1806.3

5 OF 11





Know what's below.
Call before you dig.

PHASE 2
FFE=1000.50

EXISTING BUILDING
FF=1000.5

Area of Disturbance: 2.63 AC

KEY	
PROPOSED	EXISTING
979	Grades
960	Grades
SF	Proposed Sit Fence
Circle with dot	Inlet/Outlet protection

PROJECT BENCHMARK:
#1 Top of Sanitary Manhole lid at south side of site on SE Broadway cul-de-sac.
N: 992422.0300
E: 2829012.5430
TOP ELEV. 1001.50

EROSION CONTROL GENERAL NOTES:

The contractor shall inspect, repair and add stone to the stone construction entrance when it becomes saturated with mud to insure it functions as it was intended. The topsoil stockpile shall be graded to drain and seeded 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. Temporary sediment control measures (silt fence, 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 which is part of the site work specifications. Dust control on site shall be minimized by spraying water on dry areas of the site. The use of oils 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 vehicle wash areas at construction traffic exit points and vehicle operation shall be intercepted and trapped before wash water is allowed to be discharged offsite. rinse-off will not be allowed outside the project construction limits. Repair eroded areas immediately, reseed as necessary to maintain good vegetative cover, mow vegetative cover to maintain a maximum height of six inches, and remove trash as needed. Inspect and repair the collection system (i.e. catch basins, piping, swales, rip rap, etc.) after significant rainfall to maintain proper functioning. All 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. All wash water (concrete truck, 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. All materials spilled, dropped, washed, or tracked from vehicles onto roadways or into storm drains must be removed immediately. Contractor shall remove all temporary erosion control devices/ditches and dispose of per local codes once the site has been stabilized. Contractor shall refer to the grading plan for final grades. Land disturbing activities shall not commence until approval to do so has been received by governing authorities. The general contractor shall strictly adhere to the SWPPP during construction operations. No land clearing or grading shall begin until all erosion control measures have been installed. All exposed areas shall be seeded as specified within 14 days of final grading. Should construction stop for longer than 14 days, the site shall be seeded as specified. After every significant runoff producing rainfall event of 1/2" or greater and at least once a week.

A. Inspect the detention basin system for sediment accumulation, erosion, trash accumulation, vegetated cover, and general condition.
B. Check and clear the outfall device of any obstructions.

This plan shall not be considered all inclusive as the general contractor shall take all necessary precautions to prevent soil sediment from leaving the site. General Contractor shall comply with all State and Local ordinances that apply. Additional erosion and sediment control measures will be installed if deemed necessary by an site inspection. If installation of storm drainage system should be interrupted by weather or nightfall, the pipe ends shall be covered with filter fabric. General Contractor shall be responsible to take whatever means necessary to establish permanent soil stabilization. Additional erosion and siltation control methods and devices may be required as directed by the City or MoDNR.

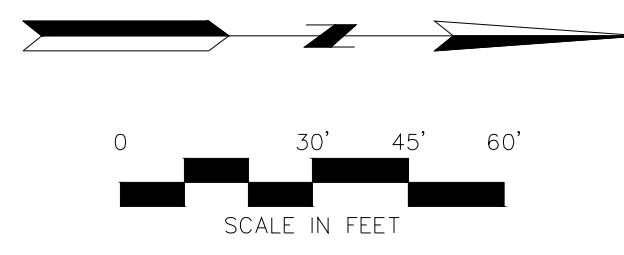
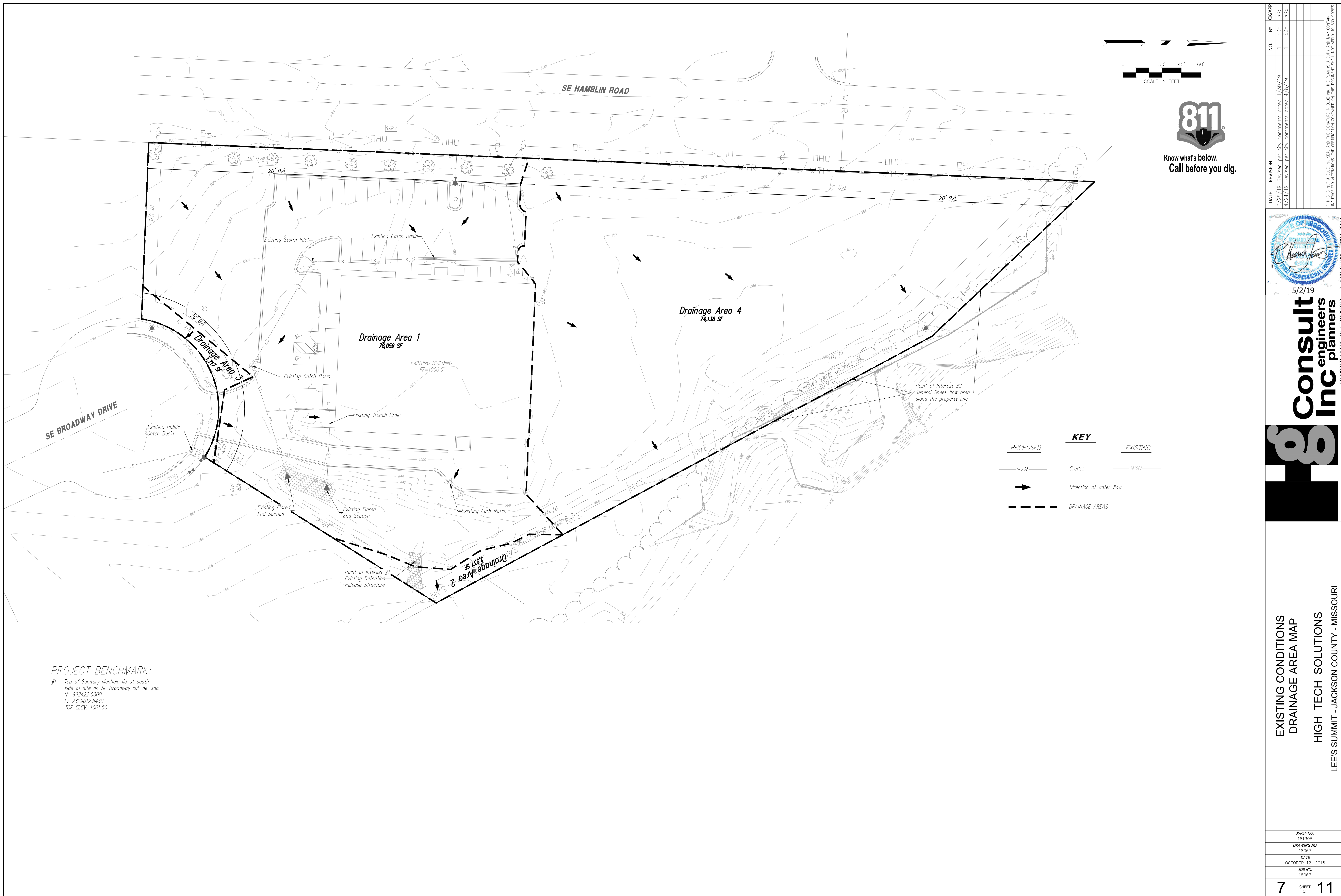
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1	EDH	4/24/19	Revised per city comments dated 4/16/19



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planners
CORPORATE LICENSE No. E2010005873

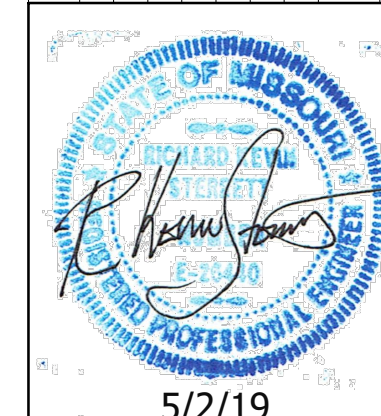
EROSION CONTROL PLAN
HIGH TECH SOLUTIONS
LEES SUMMIT - JACKSON COUNTY - MISSOURI

XREF NO. 181.508
DRAWING NO. 1806.3
DATE OCTOBER 12, 2018
JOB NO. 1806.3



PROJECT BENCHMARK:
 #1 Top of Sanitary Manhole lid at south side of site on SE Broadway cul-de-sac.
 N: 992422.0300
 E: 2829012.5430
 TOP ELEV. 1001.50

DATE	REVISION	BY	CHK/APP
3/28/19	Revised per city comments dated 1/30/19	EDH	RKS
4/24/19	Revised per city comments dated 4/16/19	EDH	RKS



5/2/19

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 engineers
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CORPORATE LICENSE NO. E2010005873

EXISTING CONDITIONS DRAINAGE AREA MAP

HIGH TECH SOLUTIONS

LEE'S SUMMIT - JACKSON COUNTY - MISSOURI

X-REF NO. 181.508
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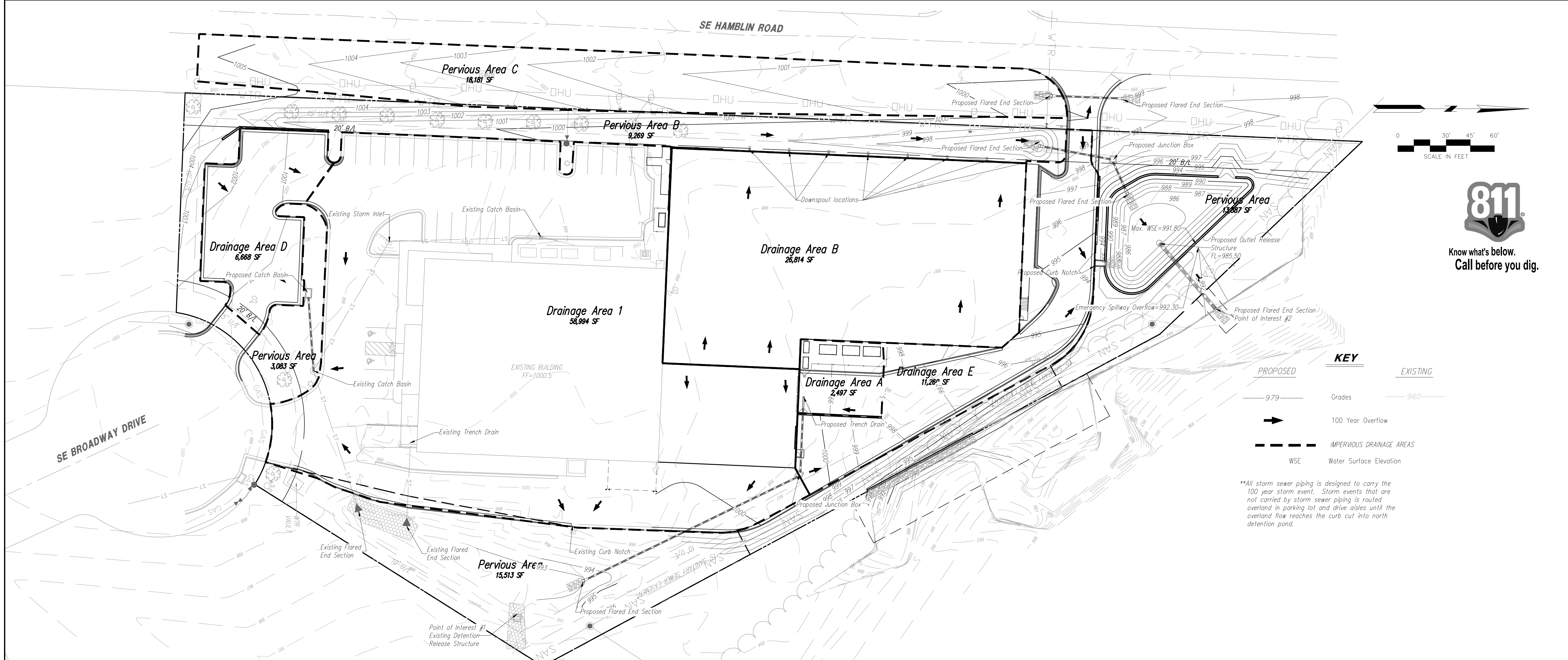
7 SHEET OF **11**

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STORM SEWER CALCULATIONS

HT SOLUTIONS

STORM SEWER NO.	SEWER LOCATION		TRIBUTARY AREA (AC.)		COMPOSITE RUNOFF COEFFICIENT	TIME OF FLOW			INTENSITY [in/hr] I[10]	10 YEAR DESIGN RUNOFF [cfs]				INTENSITY [in/hr] I[100]	100 YEAR DESIGN RUNOFF [cfs]				CURB INLET		PIPE DESIGN								
	FROM STRUCTURE NO.	TO STRUCTURE	AREA DESIGNATION	TOTAL		Ti	Tt	Tc		AREA Q[10]	In Pipe Upstream (cfs)	By Pass (cfs)	In Total Q[10]		AREA Q[100]	In Pipe Upstream (cfs)	By Pass (cfs)	In Total Q[100]	In Pipe Downstream [cfs]	By Pass Out [cfs]	Pipe Size [in]	Pipe Slope [%]	Pipe Type	Rough Coeff [MANNING]	Design Velocity [fps]	Depth Flow (inches) Q[100]	Full Velocity [fps]	Full Flow [cfs]	
																													AREA Q[10]
LINE 1	TRENCH DRAIN	JB	A	0.05	0.05	0.90	5.0	0.0	5.0	7.35	0.3	0.0	0.0	0.3	10.32	0.6	0.0	0.0	0.6	0.6	0.0	12	0.80	HDPE	0.011	2.94	7.9	4.8	3.7
LINE 1	JB	FES	-	0.00	0.05	0.00	0.0	0.0	0.0	7.35	0.0	0.3	0.0	0.3	10.32	0.0	0.6	0.0	0.6	0.6	0.0	12	0.98	HDPE	0.011	3.26	6.5	5.3	4.2
LINE 2	FES	JB	B	0.83	0.88	0.72	5.0	0.0	5.0	7.35	4.4	0.3	0.0	4.7	10.32	7.7	0.6	0.0	8.3	8.3	0.0	15	2.00	HDPE	0.011	8.39	6.0	8.8	10.8
LINE 2	JB	FES	-	0.00	0.88	0.00	0.0	0.0	0.0	7.35	0.0	0.0	0.0	0.0	10.32	0.0	0.0	0.0	0.0	0.0	0.0	15	9.40	HDPE	0.011	8.4	7.0	9.6	11.6
LINE 3	OUTLET	FES	-	0.00	0.88	0.00	-	-	-	-	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	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	5.0	0.0	5.0	7.35	0.6	0.0	0.0	0.6	10.32	1.1	0.0	0.0	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	5.0	0.0	5.0	7.35	1.0	0.6	0.0	1.6	10.32	1.7	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	NORTH DETENTION POND	E	0.26	1.70	0.90	5.0	0.0	5.0	7.35	1.7	NA	NA	1.7	10.32	2.7	NA	NA	2.7	NA	NA	NA	NA	NA	1.8	3.0	1.8	2.7	



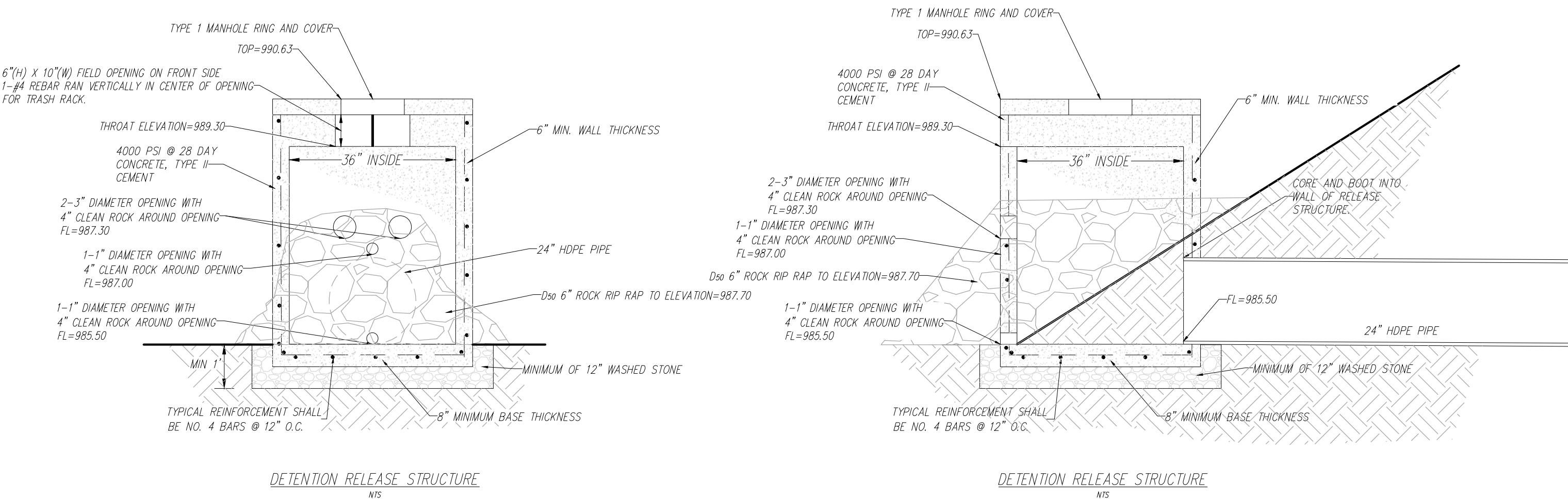
KEY

PROPOSED	EXISTING
— 979 —	— 960 —
→	

WSE	

**All storm sewer piping is designed to carry the 100 year storm event. Storm events that are not carried by storm sewer piping is routed overland in parking lot and drive aistes until the overland flow reaches the curb cut into north detention pond.

PROJECT BENCHMARK:
 #1 Top of Sanitary Manhole lid at south side of site on SE Broadway cul-de-sac. N: 992422.0300 E: 2829012.5430 TOP ELEV. 1001.50



Detention Pond Details:

Elevation (feet)	Surt Area (sq-ft)	Cum. Store (cubic-feet)
985.500	1.50	0
986.000	1,148.80	287.58
987.000	1,759.34	1443.27
988.000	2,253.05	3747.84
989.000	2,800.89	6274.81
990.000	3,400.19	9375.35
991.000	4,050.51	13100.70
992.000	4,066.36	17159.13
993.000	4,306.85	21345.74

NO. BY: CK/MP
 1 EDH
 1 EDH
 1 EDH

DATE: 3/28/19
 4/24/19
 5/2/19

REVISION: 1
 2
 3

DATE: 3/28/19
 4/24/19
 5/2/19

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5/2/19

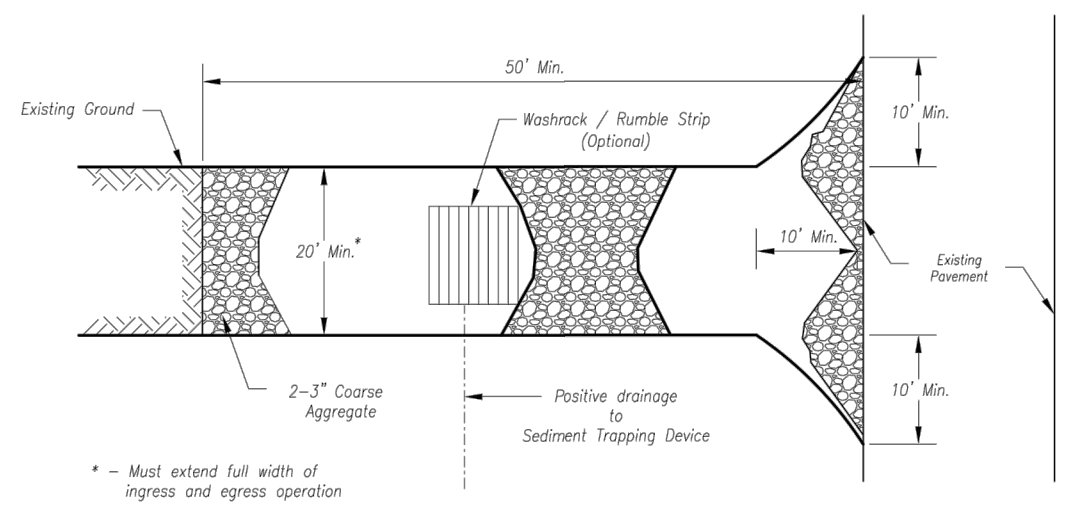
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811
 Know what's below.
 Call before you dig.

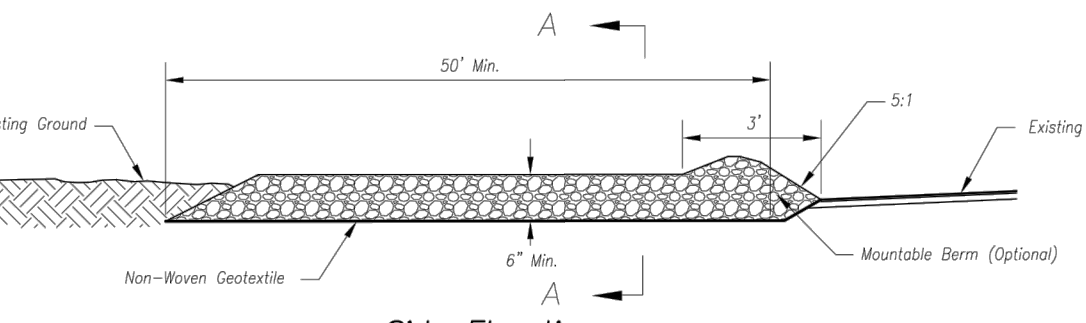
POST DEVELOPMENT DRAINAGE AREA MAP
 HIGH TECH SOLUTIONS
 LEE'S SUMMIT - JACKSON COUNTY - MISSOURI

XREF NO. 181.508
 DRAWING NO. 1806.3
 DATE: OCTOBER 12, 2018
 JOB NO. 1806.3

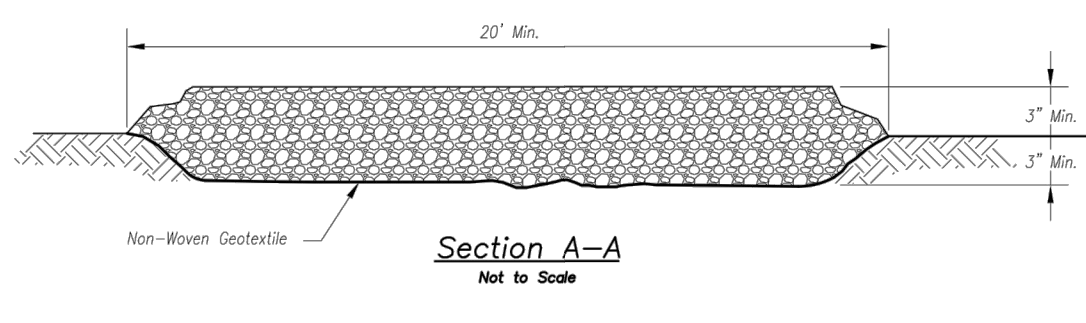
8 SHEET OF 11



Plan View
Not to Scale



Side Elevation
Not to Scale



Section A-A
Not to Scale

- Notes for Concrete Washout:**
- Concrete washout areas shall be installed prior to any concrete placement on site.
 - Concrete washout area shall include a flat subsurface pit sized relative to the amount of concrete to be placed on site. The slopes leading out of the subsurface pit shall be 2:1. The vehicle tracking pad shall be sloped towards the concrete washout area.
 - Vehicle tracking control is required at the access point to all concrete washout areas.
 - Signs shall be placed at the construction site entrance, washout area and elsewhere as necessary to clearly indicate the location(s) of the concrete washout area(s) to operators of concrete truck and pump rigs.
 - A one-piece impervious liner may be required along the bottom and sides of the subsurface pit in sandy or gravelly soils.

- Maintenance for Concrete Washout:**
- Concrete washout materials shall be removed once the materials have filled the washout to approximately 75% full.
 - Concrete washout areas shall be enlarged as necessary to maintain capacity for wasted concrete.
 - Concrete washout water, wasted pieces of concrete and all other debris in the subsurface pit shall be transported from the job site in a water-tight container and disposed of properly.
 - Concrete washout areas shall remain in place until all concrete for the project is placed.
 - When concrete washout areas are removed, excavations shall be filled with suitable compacted backfill and topped, any disturbed areas associated with the installation, maintenance, and/or removal of the concrete washout areas shall be stabilized.

- Maintenance for Construction Entrance:**
- Reshape entrance as needed to maintain function and integrity of installation. Top dress with clean aggregate as needed.

- Notes for Construction Entrance:**
- Avoid locating on steep slopes, at curves on public roads, or downhill of disturbed area.
 - Remove all vegetation and other unsuitable material from the foundation area, grade, and crown for positive drainage.
 - If slope towards the public road exceeds 2%, construct a 6\"/>

CONSTRUCTION ENTRANCE

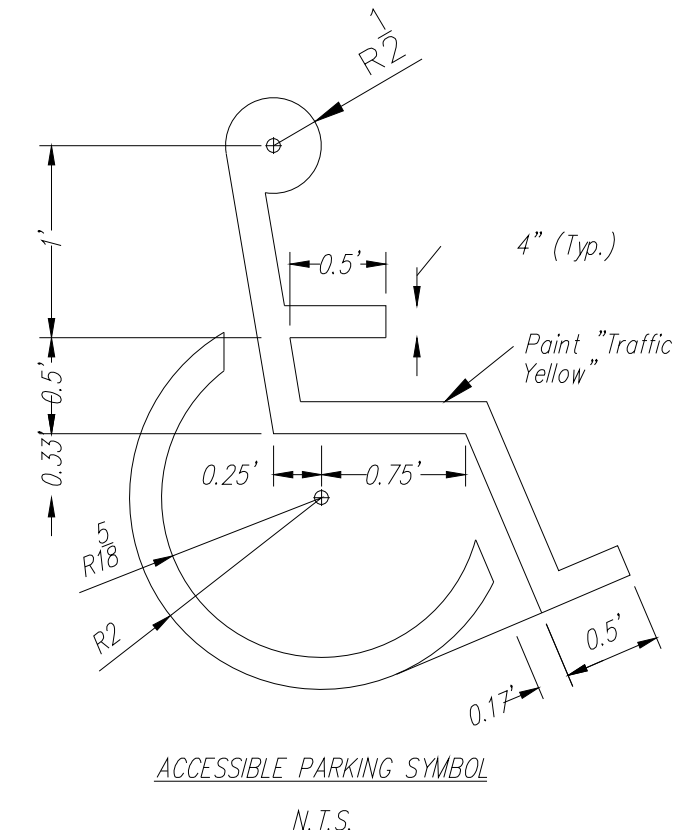
Construction Entrance modified from 2015 Overland Park Standard Details for Erosion and Sediment Control, Concrete Washout modified from 2009 City of Great Bend Standard Drawings.

AMERICAN PUBLIC WORKS ASSOCIATION

KANSAS CITY
METRO CHAPTER

**CONSTRUCTION ENTRANCE
AND CONCRETE WASHOUT**

STANDARD DRAWING
NUMBER ESC-C-01
ADOPTED:
10/24/2016



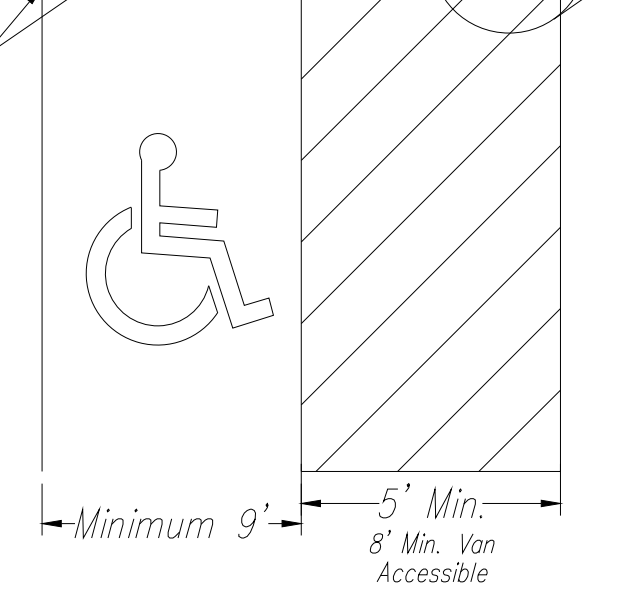
ACCESSIBLE PARKING SYMBOL
N.T.S.

NOTE: Symbol to be centered in parking space and oriented as illustrated on plans.



RESERVED PARKING
N.T.S.

- Colors**
Legend and Border - Green
White Symbol on Blue Background
Background - White
(R7-B)

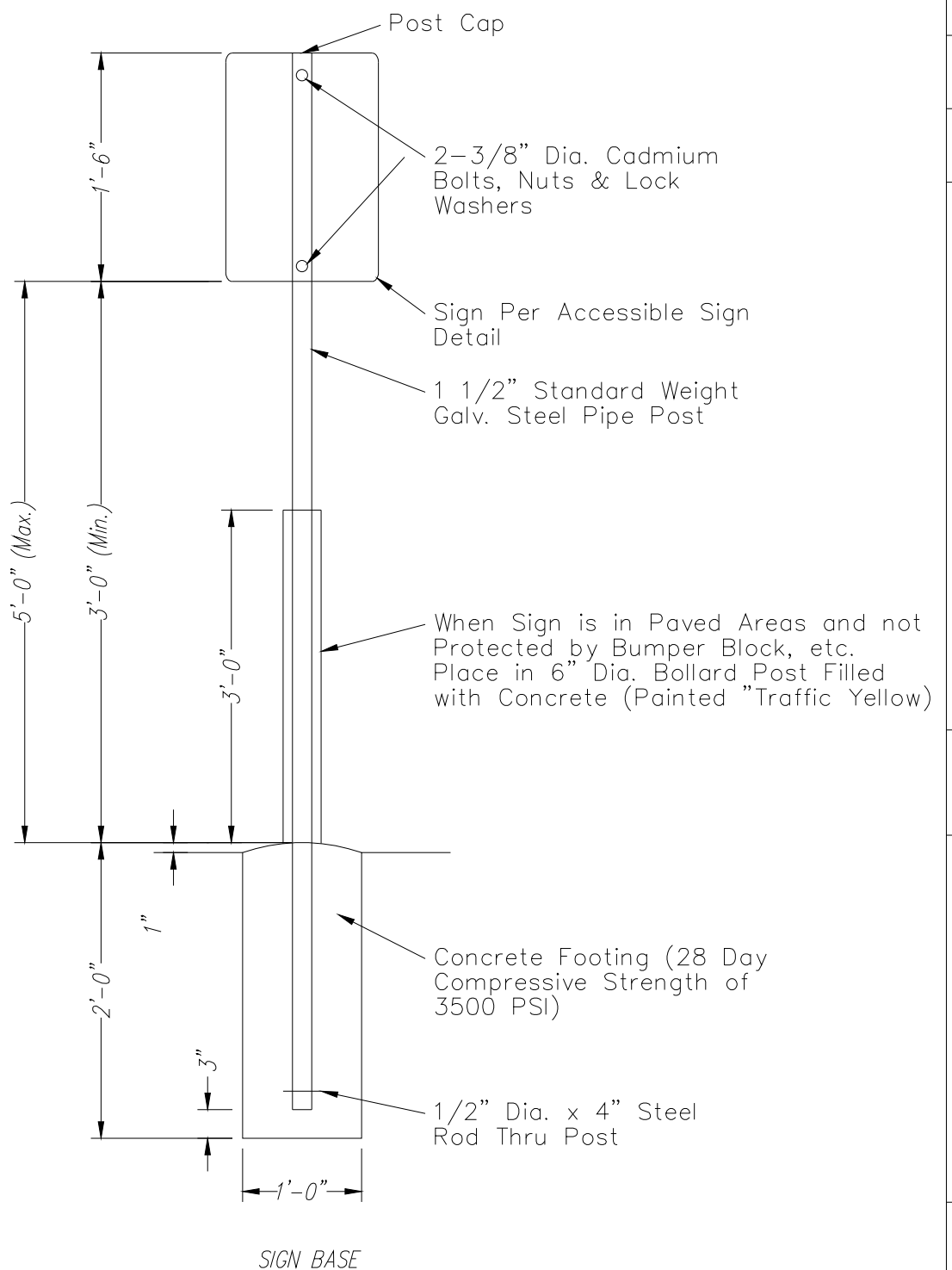


4\"/>

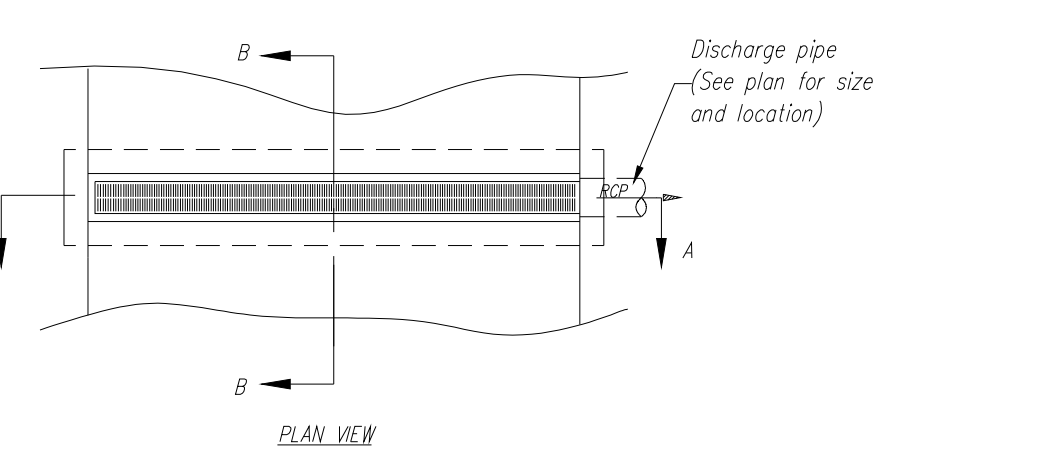


6\"/>

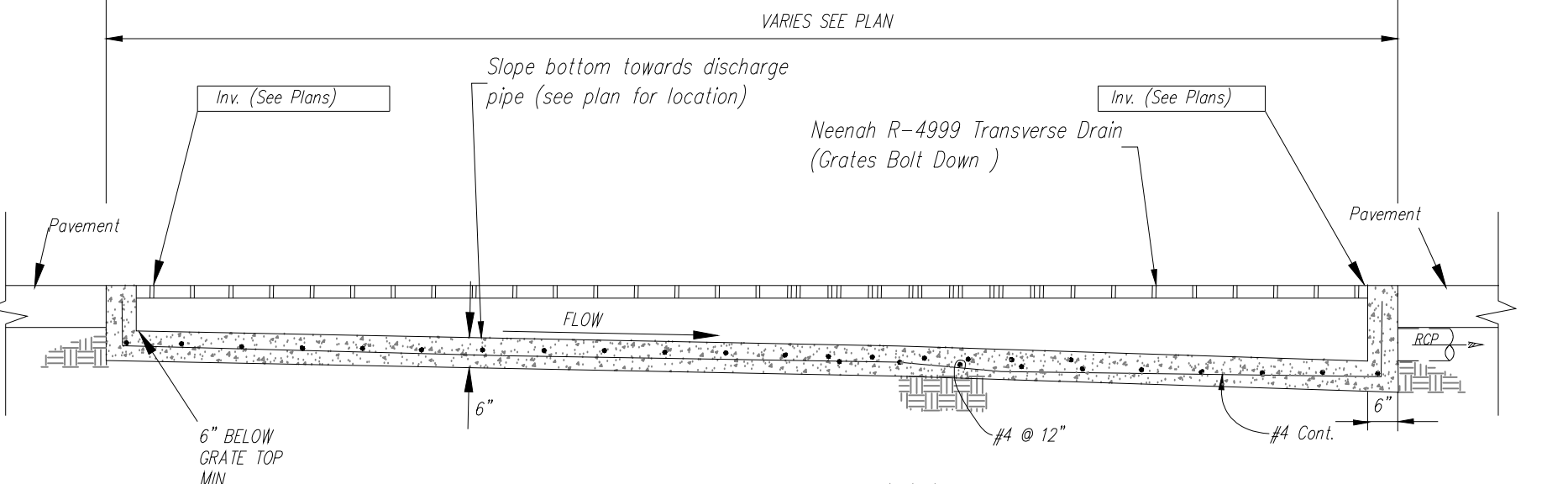
- Mount 2 Accessible Signs. See plans for locations.**
All Signs should comply with U.S. Department of Transportation Federal Highway Administration's "Uniform Traffic Control Devices", and local codes as specified. Mount signs in accordance with manufacturer's instructions.



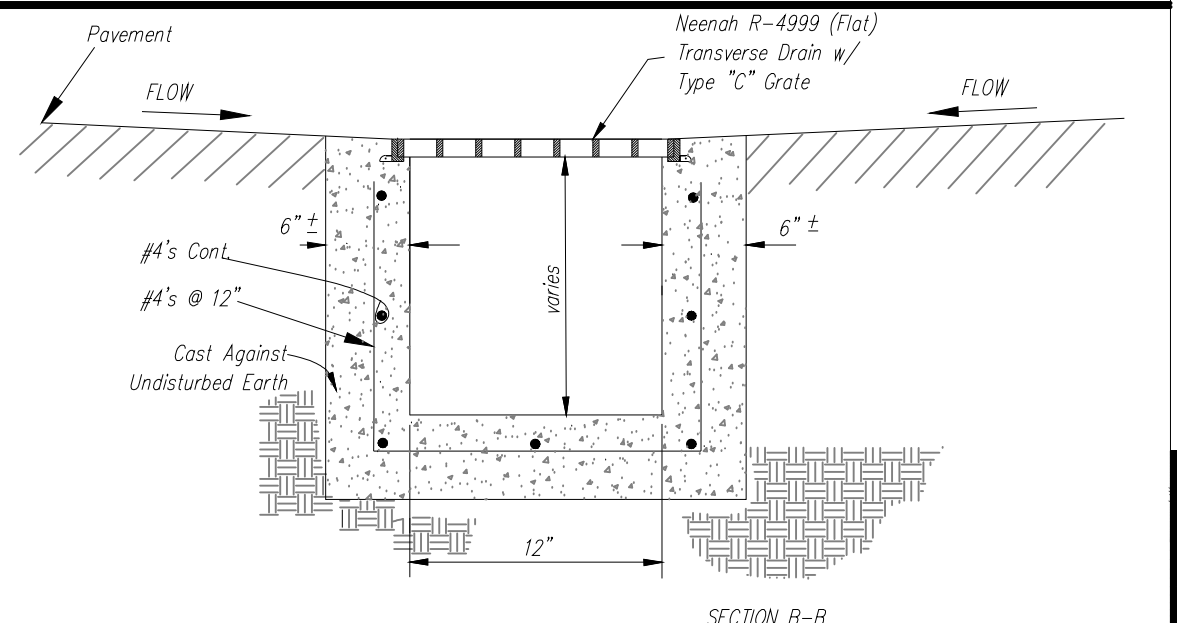
SIGN BASE



PLAN VIEW

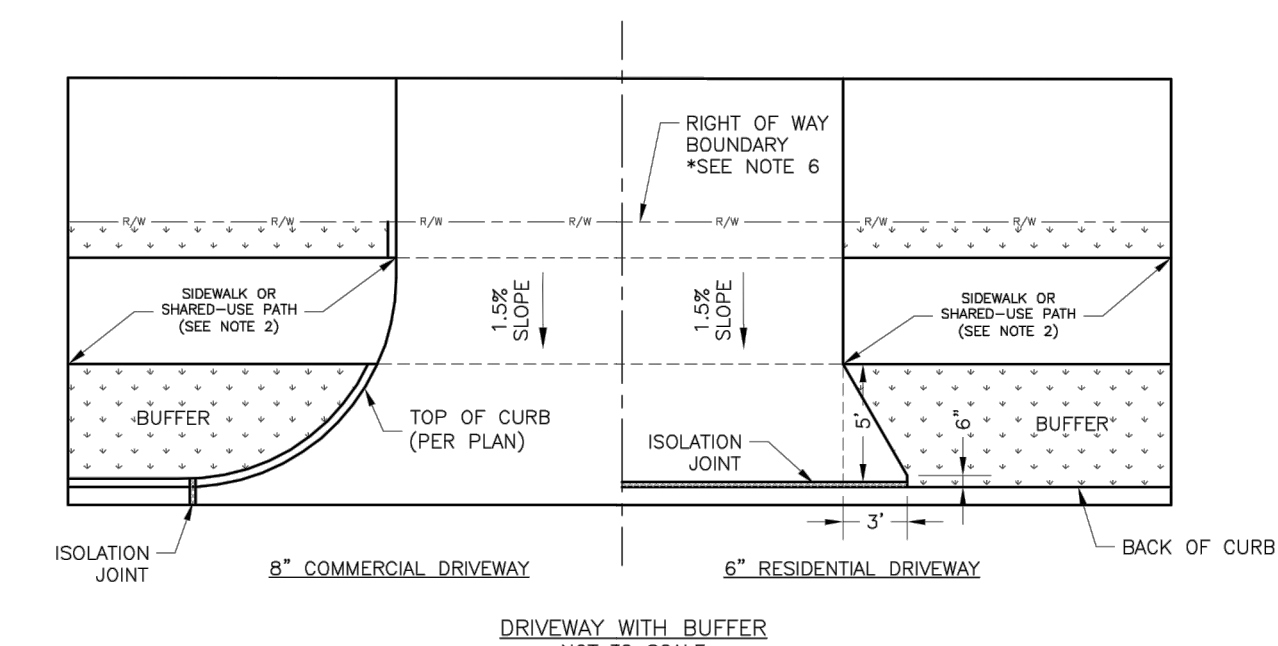


SECTION A-A

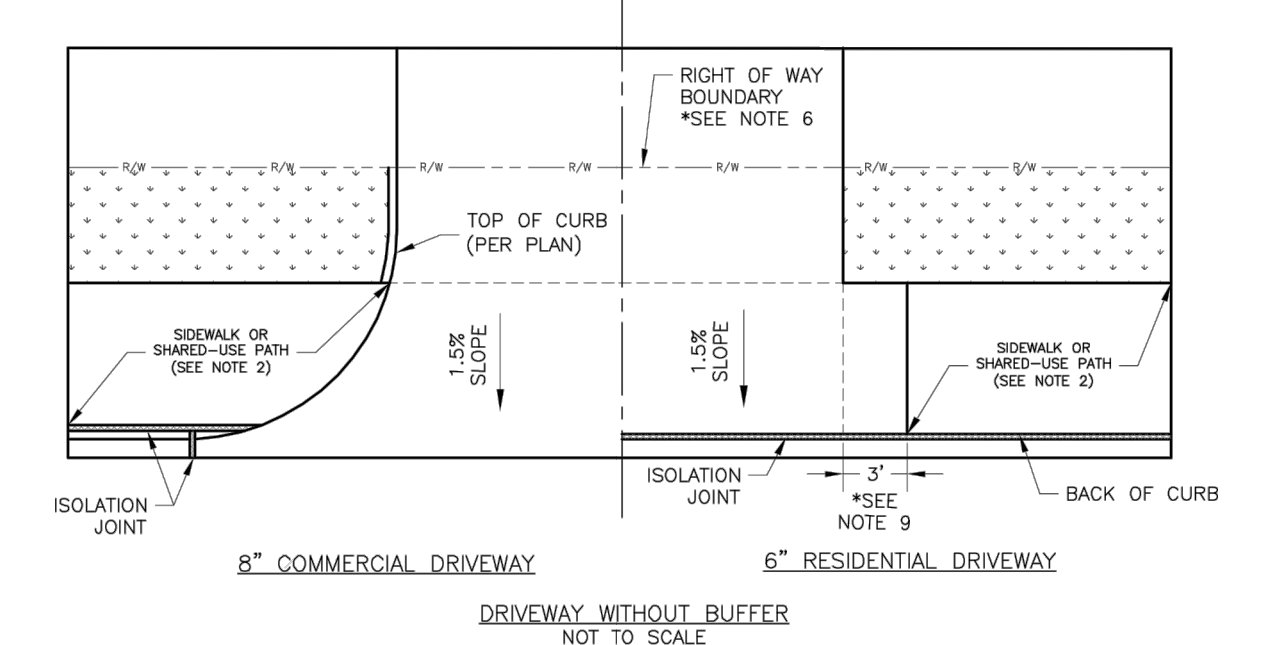


SECTION B-B

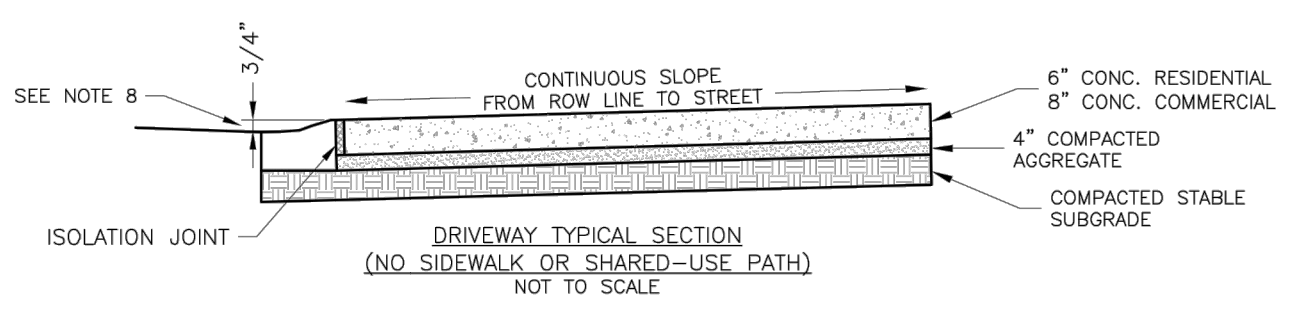
TRENCH DRAIN
N.T.S.



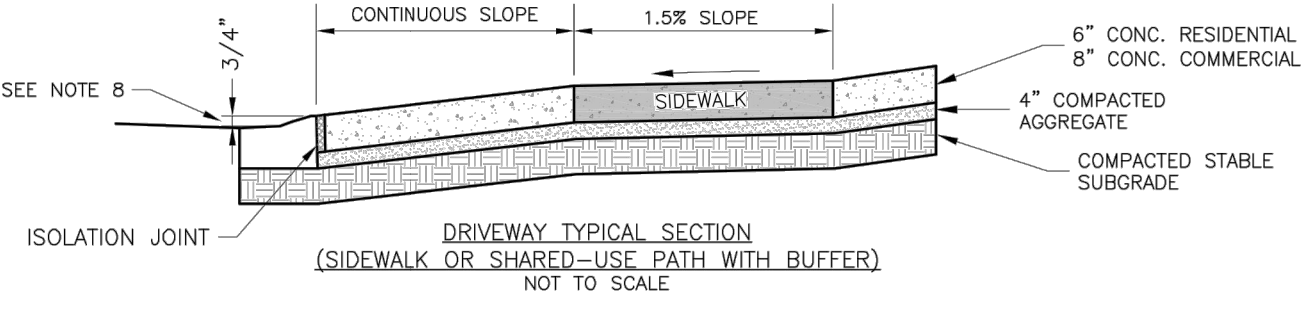
DRIVEWAY WITH BUFFER
NOT TO SCALE



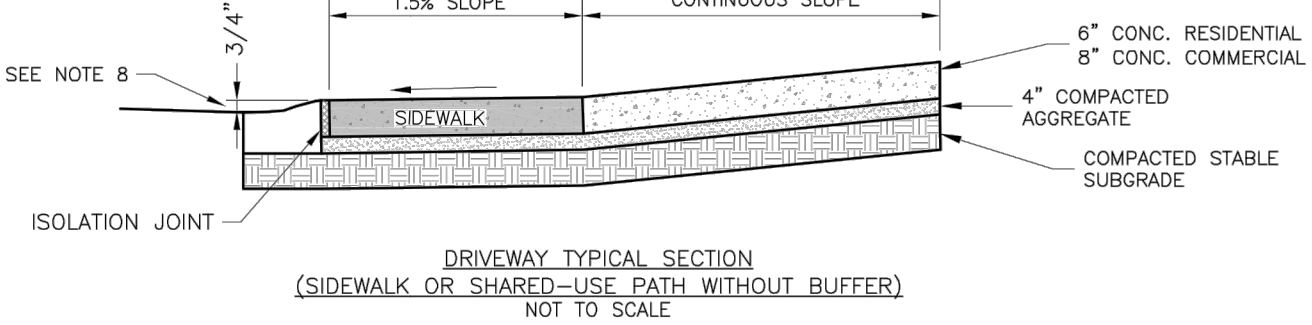
DRIVEWAY WITHOUT BUFFER
NOT TO SCALE



DRIVEWAY TYPICAL SECTION
(NO SIDEWALK OR SHARED-USE PATH)
NOT TO SCALE



DRIVEWAY TYPICAL SECTION
(SIDEWALK OR SHARED-USE PATH WITH BUFFER)
NOT TO SCALE



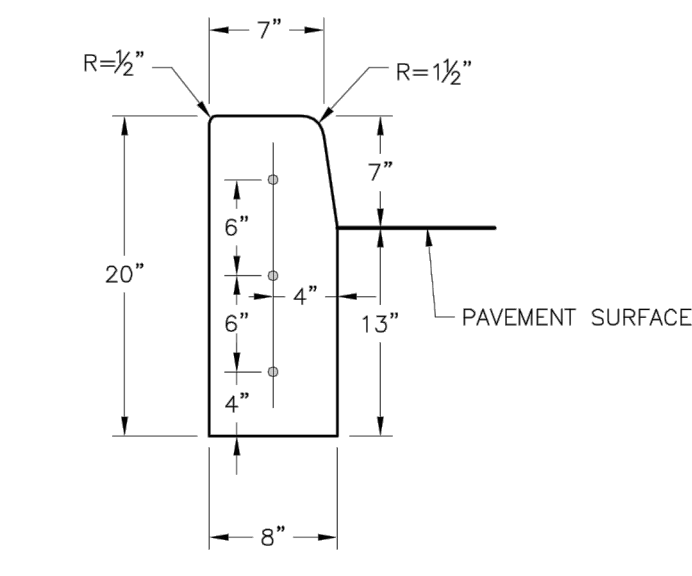
DRIVEWAY TYPICAL SECTION
(SIDEWALK OR SHARED-USE PATH WITHOUT BUFFER)
NOT TO SCALE

- GENERAL NOTES**
- SUBGRADE SHALL BE STABLE, COMPACTED EARTH AND SHALL BE OVERLAYED WITH 4\"/>

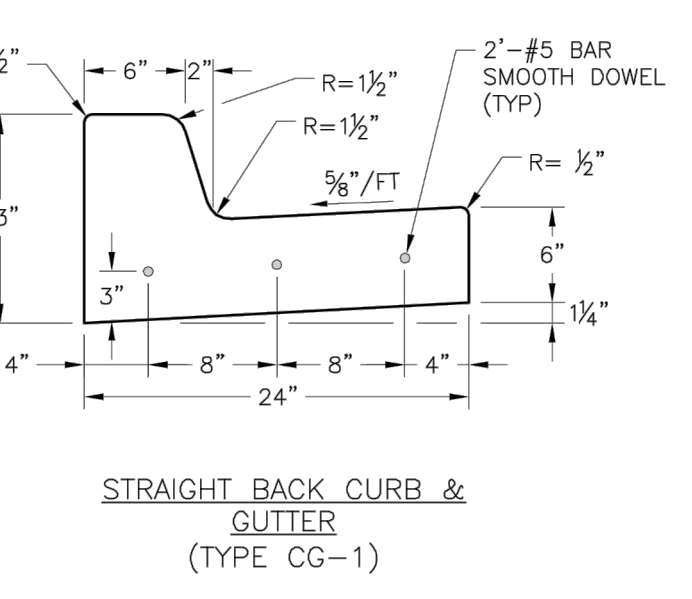
LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 1201 SE GREEN STREET | LEE'S SUMMIT, MO 64083

STANDARD DETAILS
CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO
DRIVEWAY DETAIL

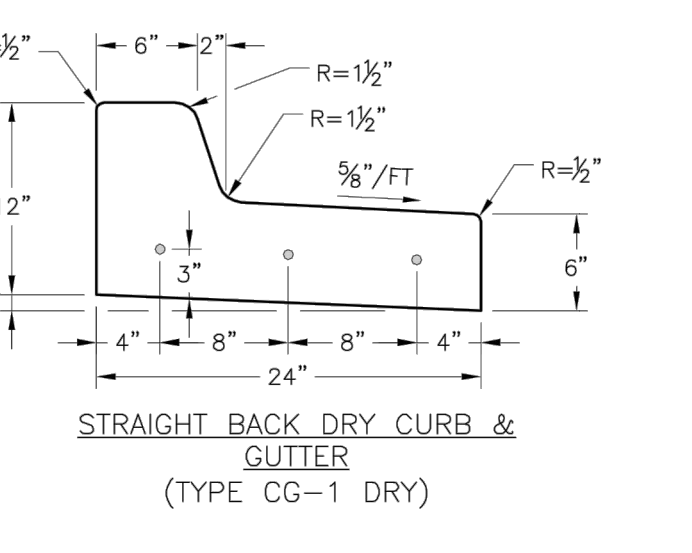
GEN-1



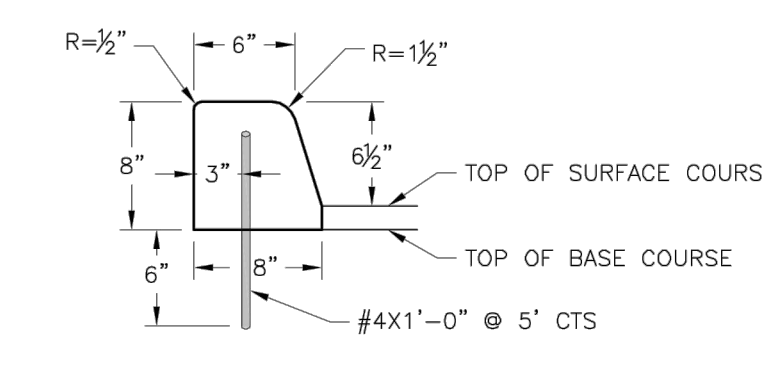
STRAIGHT CURB
(TYPE C-1)



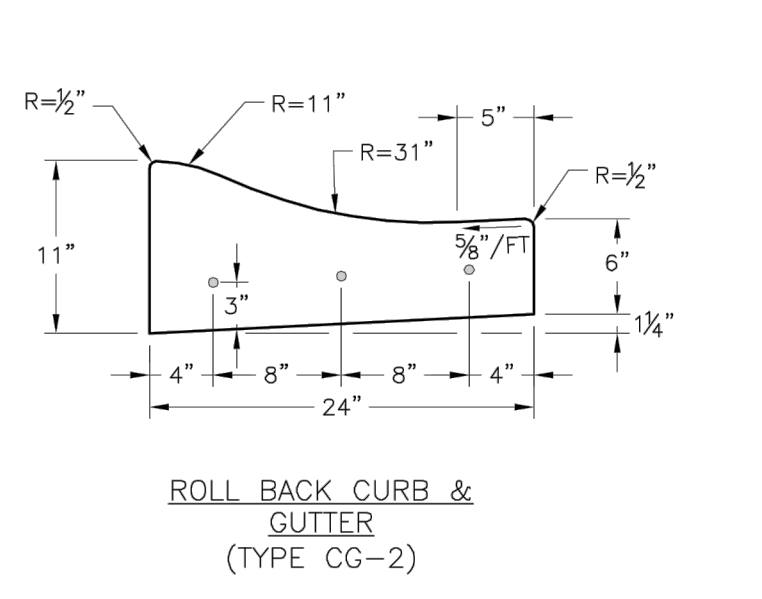
STRAIGHT BACK CURB & GUTTER
(TYPE CG-1)



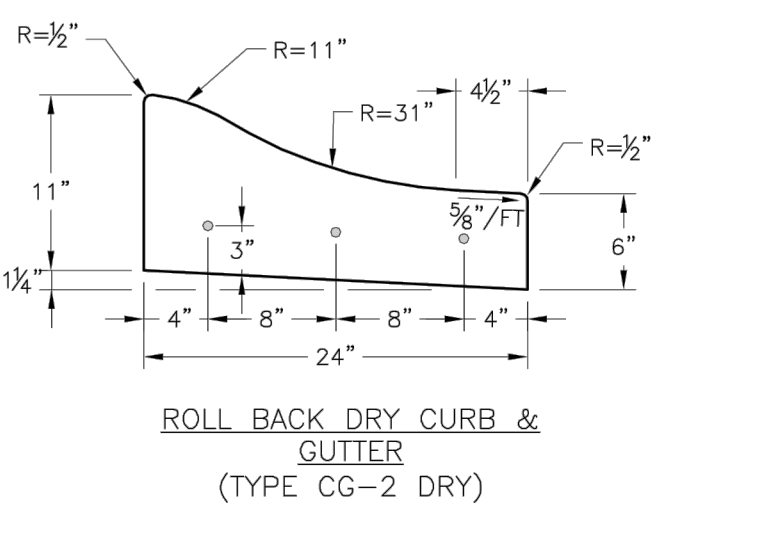
STRAIGHT BACK DRY CURB & GUTTER
(TYPE CG-1 DRY)



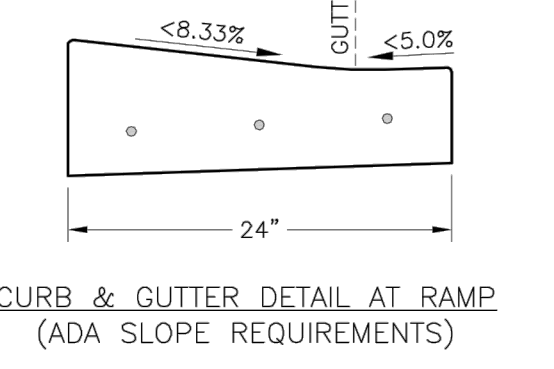
DOWELLED CURB
(TYPE DC)



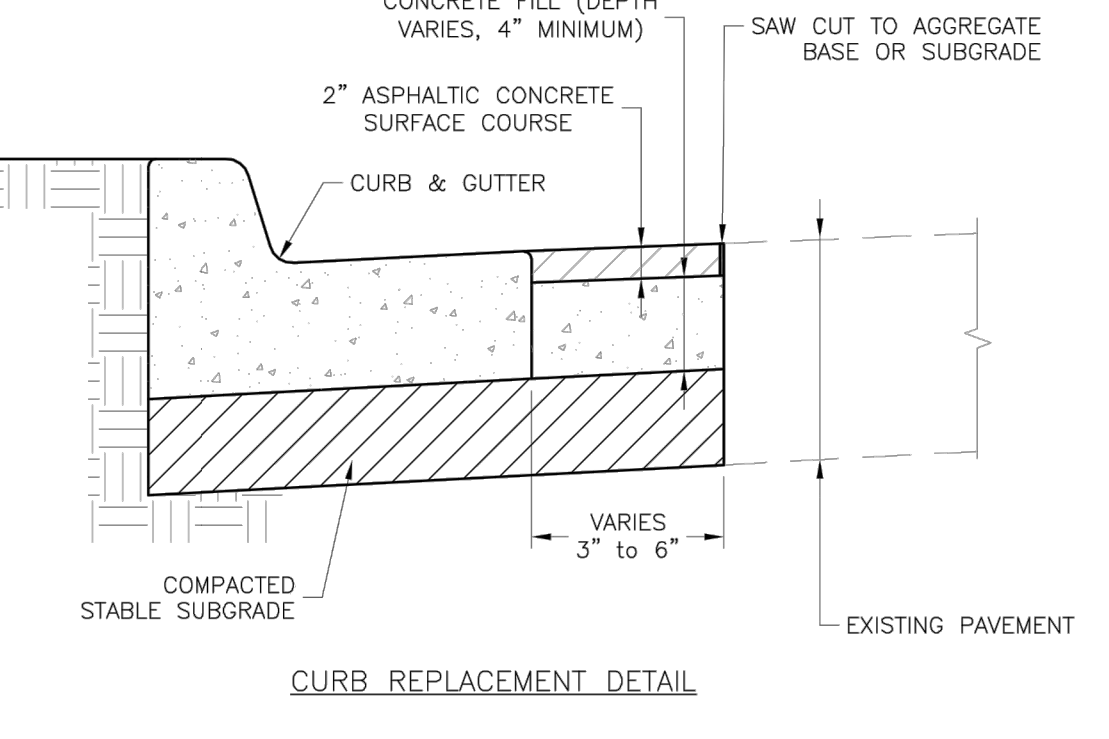
ROLL BACK CURB & GUTTER
(TYPE CG-2)



ROLL BACK DRY CURB & GUTTER
(TYPE CG-2 DRY)



CURB & GUTTER DETAIL AT RAMP
(ADA SLOPE REQUIREMENTS)



CURB REPLACEMENT DETAIL

- GENERAL NOTES**
- 3/4\"/>

LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 1201 SE GREEN STREET | LEE'S SUMMIT, MO 64083

STANDARD DETAILS
CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO
CURB & GUTTER DETAIL

GEN-4

FINAL DEVELOPMENT PLAN
SITE DETAIL SHEET

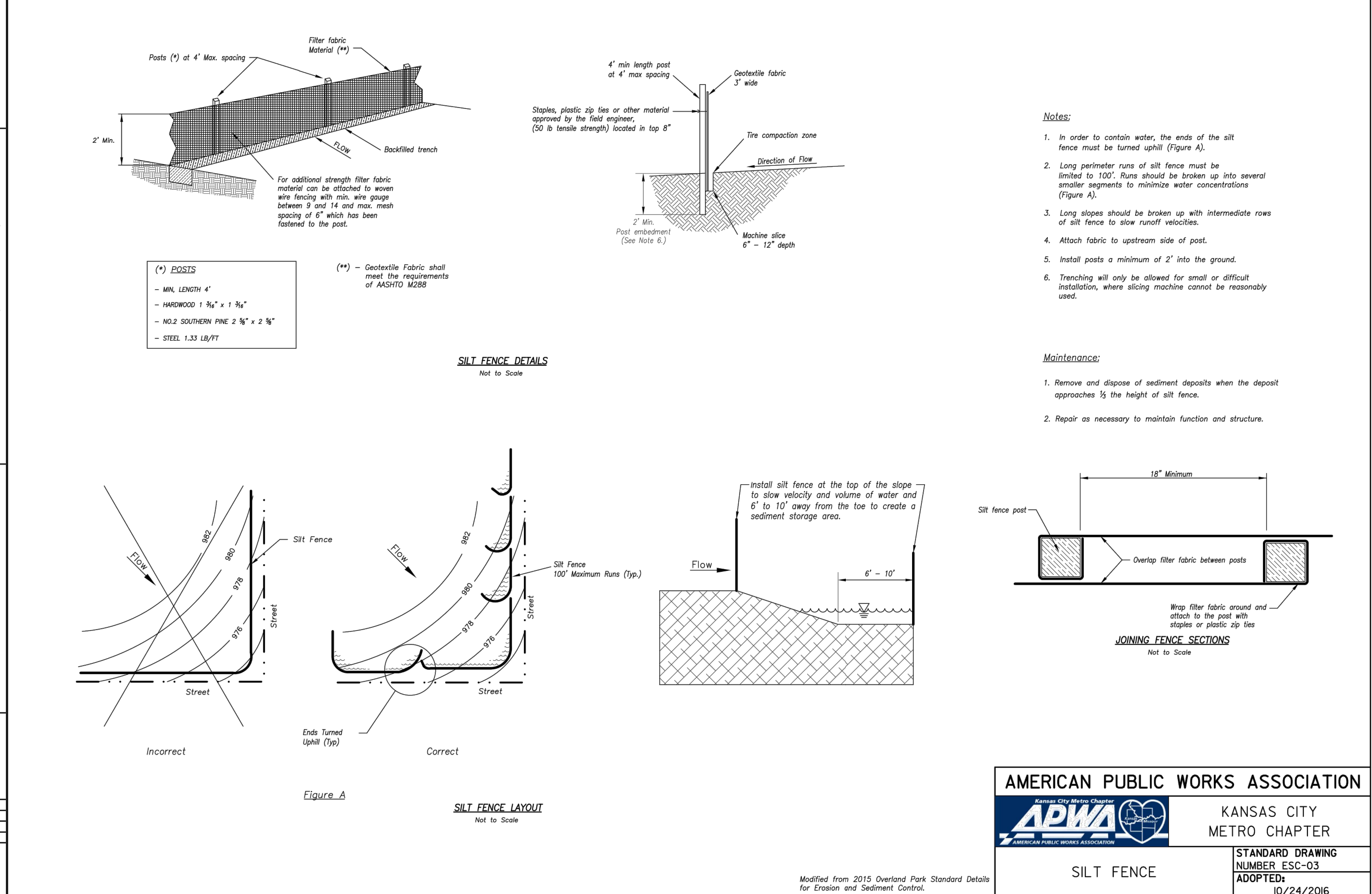
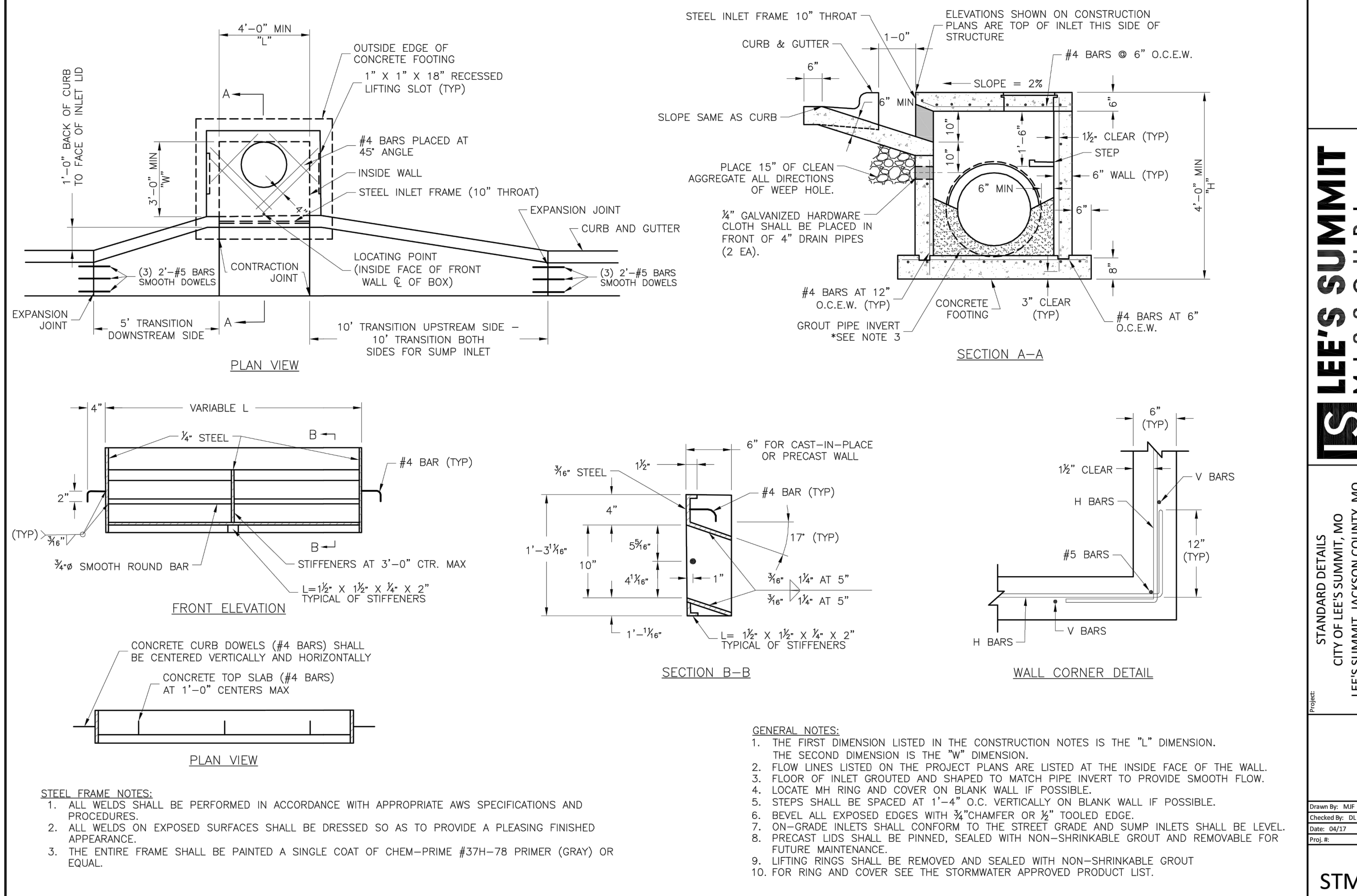
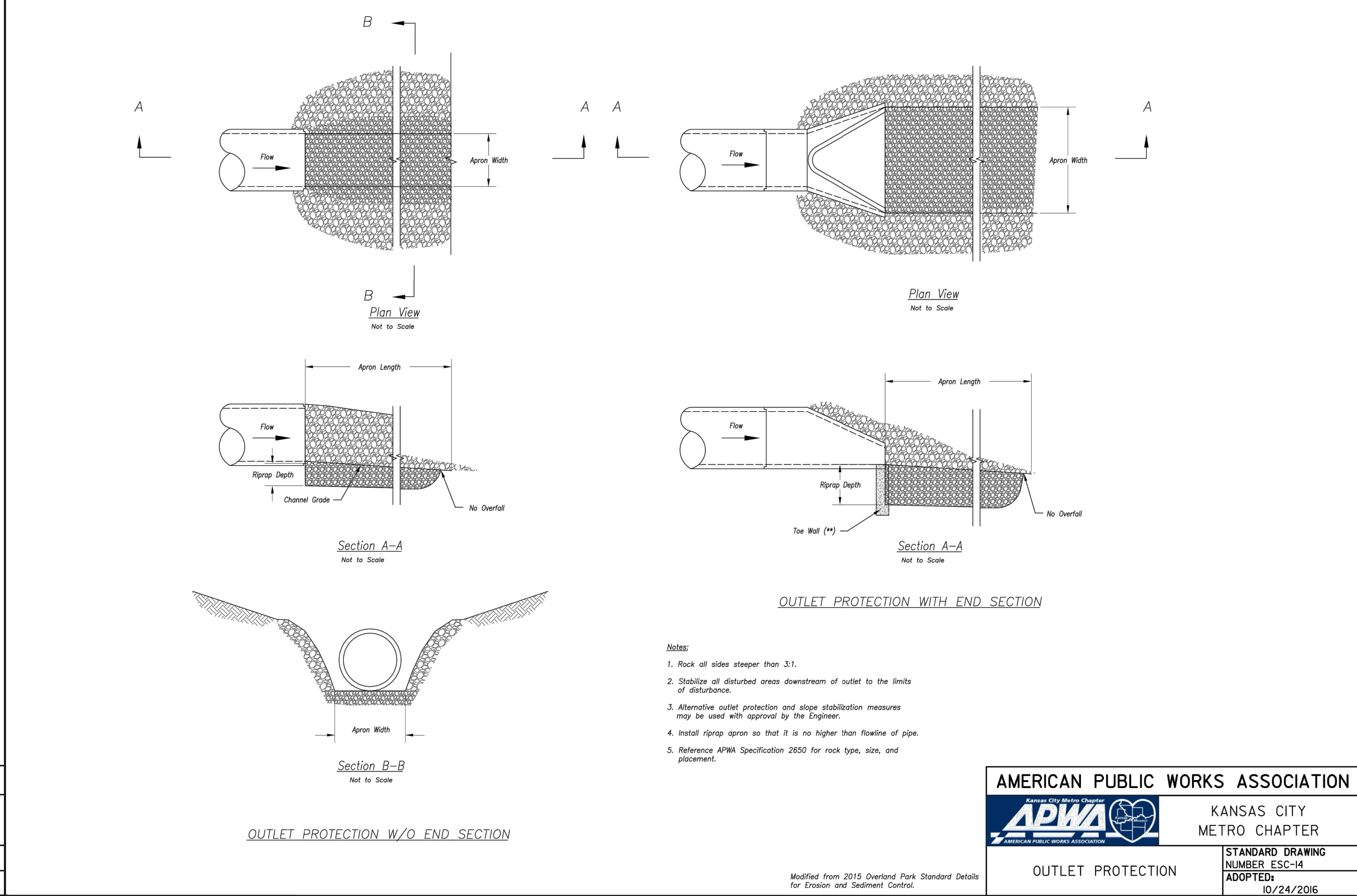
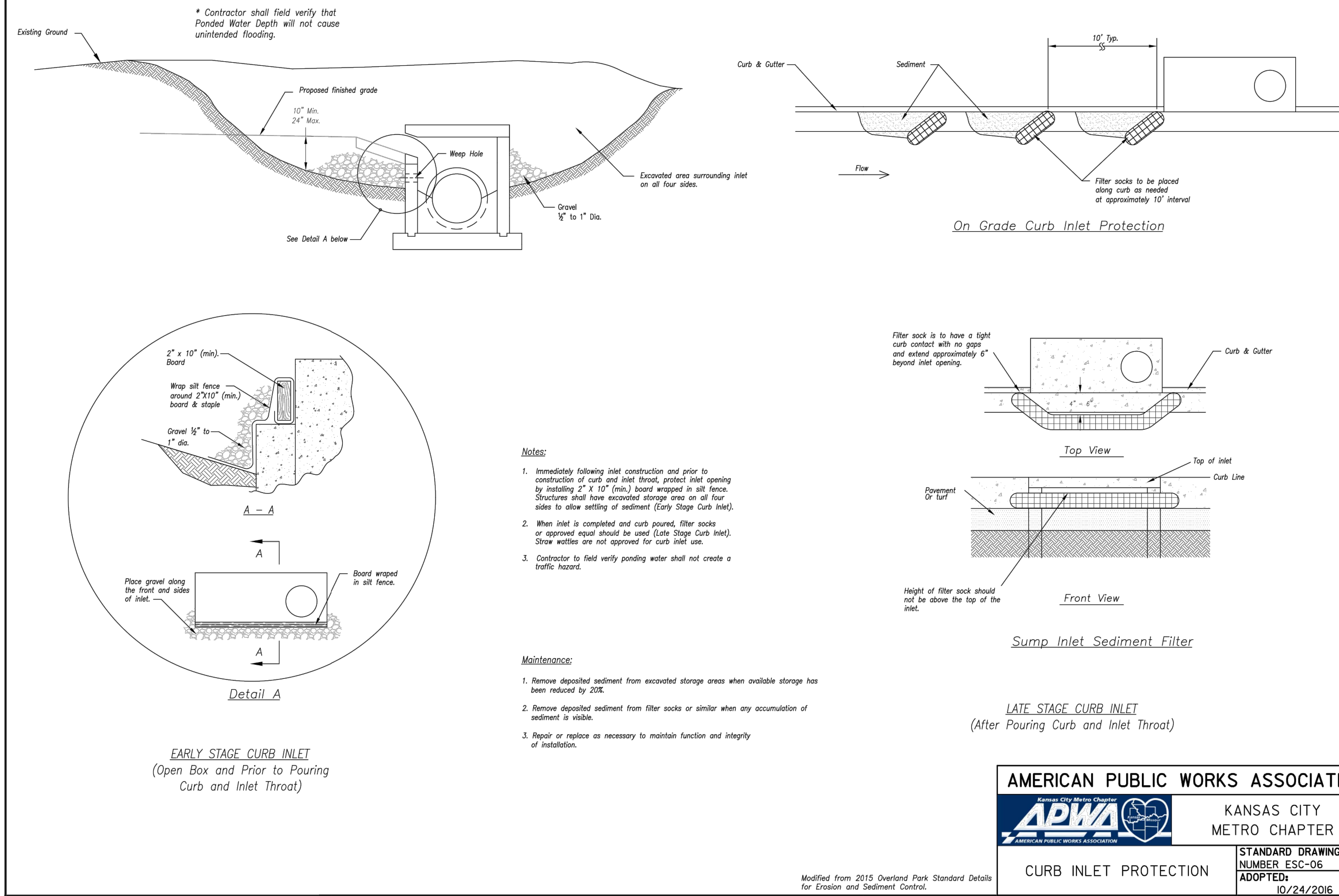
HIGH TECH SOLUTIONS
LEE'S SUMMIT - JACKSON COUNTY - MISSOURI

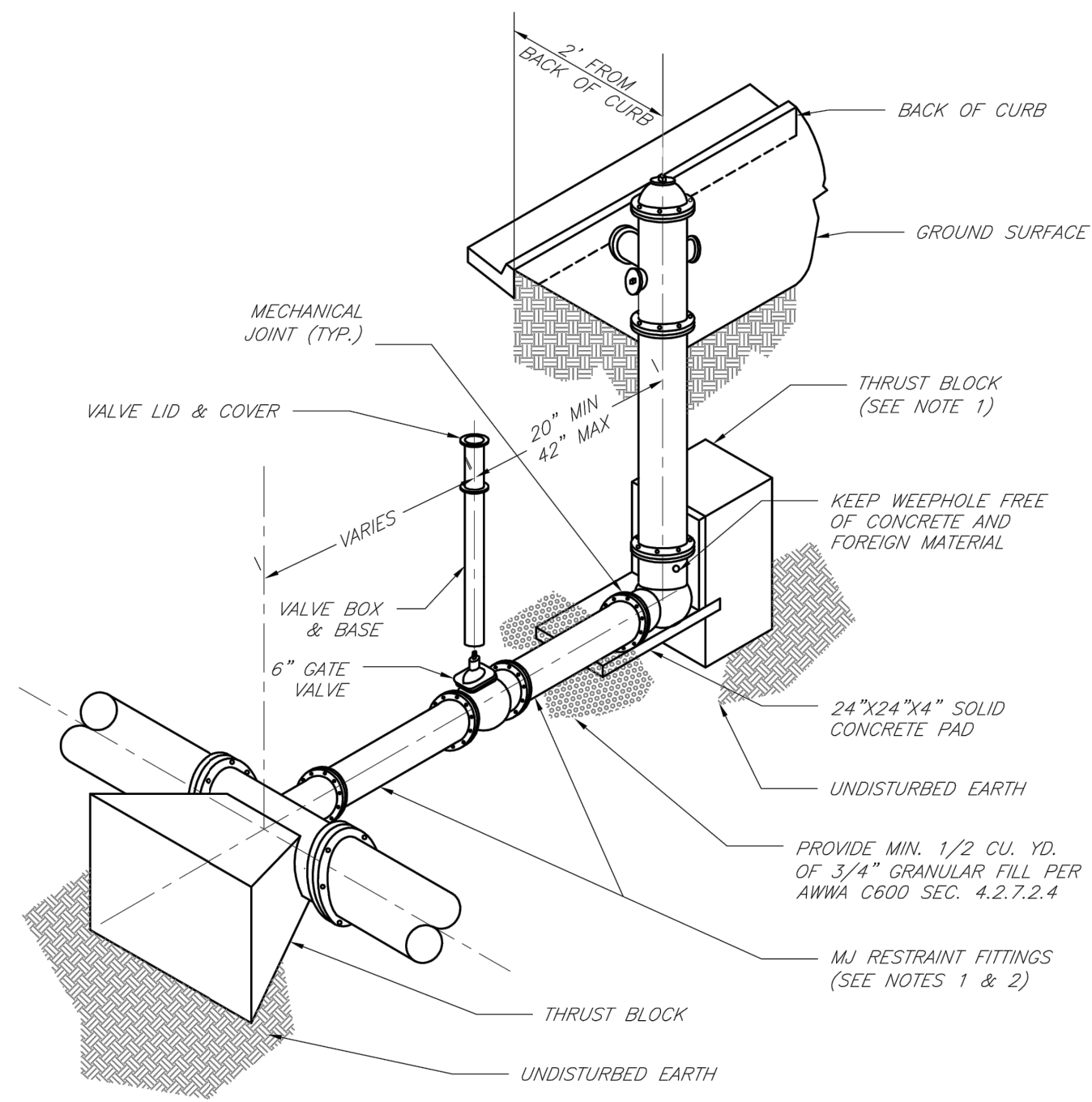
XREF NO. 181.508	DATE OCTOBER 12, 2018
DRAWING NO. 1806.3	JOB NO. 1806.3
SHEET 9 OF 11	

NO.	BY	REVISION

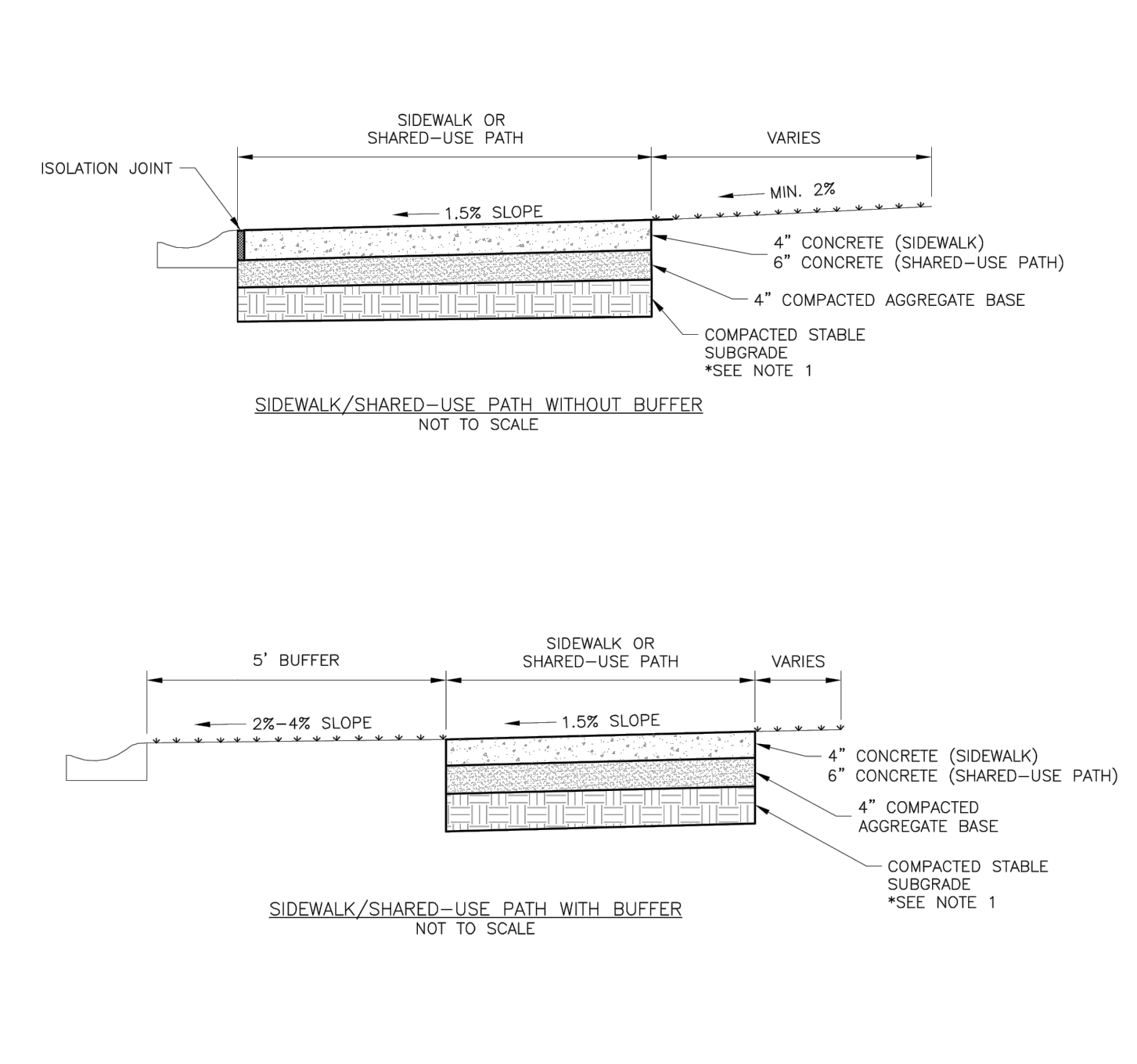
R. KEVIN STERRETT, MO E-26440
CORPORATE LICENSE NO. E201005873

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engineers
planners





- NOTES:**
- WHEN RETAINER GLANDS ARE USED IN LIEU OF MECHANICAL JOINT (MJ) RESTRAINT FITTINGS, HORIZONTAL THRUST BLOCKS ARE REQUIRED.
 - GATE VALVE MAY BE BOLTED DIRECTLY TO MJ RESTRAINT TEE.
 - SEE APPROVED PRODUCTS LIST FOR WATER UTILITIES FOR FIRE HYDRANT, VALVES, VALVE BOX LID, AND COVER.
 - BOTTOM HYDRANT FLANGE SHALL BE 2" TO 6" ABOVE FINISHED GRADE.
 - 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 BOTTOM OF DITCH.
 - HYDRANT SHALL BE ROTATED AS DIRECTED BY INSPECTOR.



- GENERAL NOTES:**
- SUBGRADE MUST BE OF STABLE, COMPACTED EARTH AND SHALL BE OVERLAYED WITH 4" COMPACTED DENSE GRADED AGGREGATE BASE.
 - 1.5% CROSS SLOPE MUST BE MAINTAINED THROUGH DRIVEWAYS.
 - KCMMS 4K CONCRETE MIX SHALL BE REQUIRED FOR ALL SIDEWALKS AND SHARED-USE PATHS OR AS APPROVED BY THE CITY INSPECTOR.
 - ALL SIDEWALKS SHALL MEET CURRENT PUBLIC RIGHT OF WAY ACCESSIBILITY GUIDELINES (PROWAG).
 - AN EXPANSION JOINT SHALL BE PLACED AT A MAXIMUM OF 150 FT. CONSTRUCTION JOINTS SHALL BE PLACED THE SAME WIDTH OF SIDEWALK, BUT NO GREATER THAN 10 FT.
 - SHARED-USE PATH WIDTH SHALL BE 10 FT. WIDE.
 - SIDEWALK FINISHING (NO PICTURE FRAMING) AS DIRECTED BY CITY INSPECTOR.
 - WHITE CURING COMPOUND MUST BE APPLIED UNIFORMLY TO THE CONCRETE SURFACE IMMEDIATELY AFTER FINAL FINISHING.

LS	LEE'S SUMMIT MISSOURI	Date: 02/13
	PUBLIC WORKS ENGINEERING DIVISION 1230 SE GREEN STREET LEE'S SUMMIT, MO 64063	Drawn By: JN
	HYDRANT INSTALLATION - STRAIGHT SET	Checked By: DL
		File: WAT-7
		Rev: 1/14

LS	LEE'S SUMMIT MISSOURI	Date: 04/17
	PUBLIC WORKS ENGINEERING DIVISION 1230 SE GREEN STREET LEE'S SUMMIT, MO 64063	Drawn By: MIF
	SIDEWALK/SHARED-USE PATH DETAIL	Checked By: DL
		GEN-2

NO.	BY	DATE	REVISION

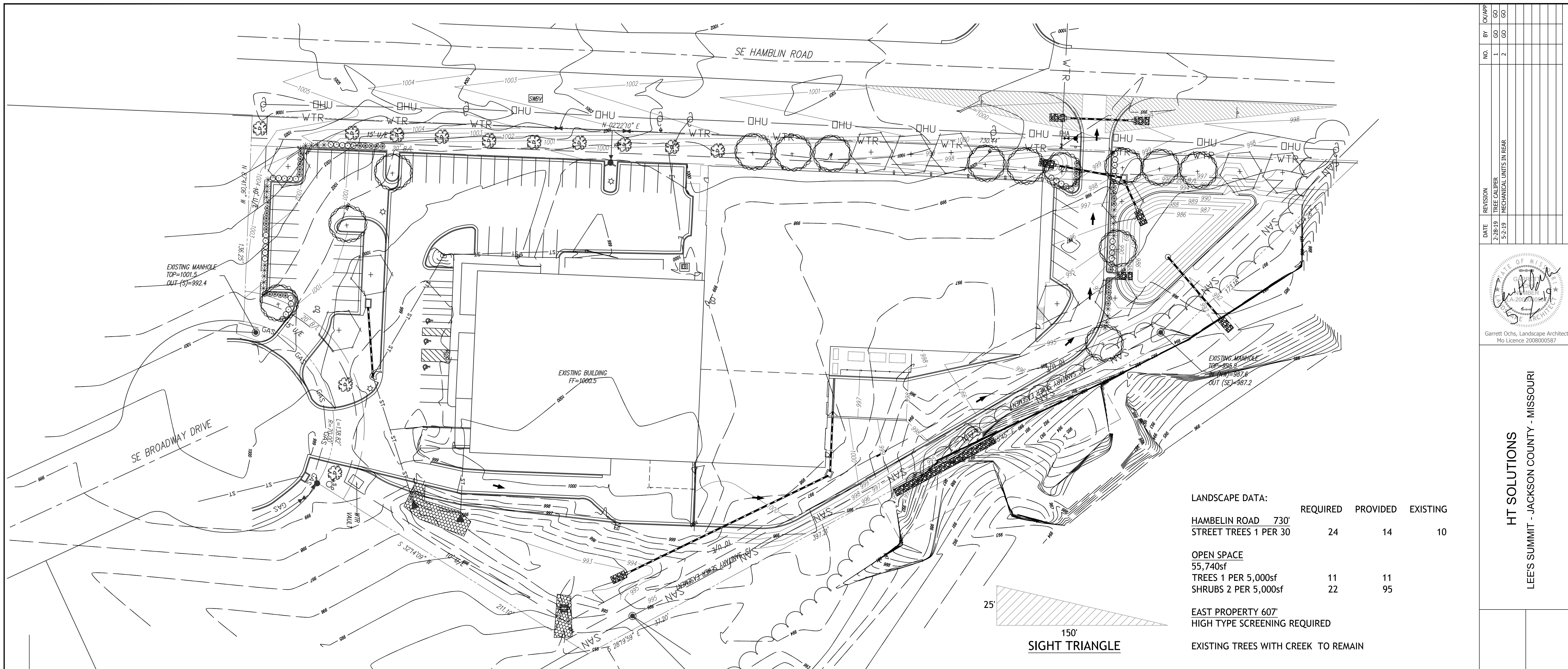
R. KEVIN STERRETT, MO E-26440
 CORPORATE LICENSE No. E201005873

Consult Inc
 engineers planners

HTS
 HIGH TECH SOLUTIONS
 LEE'S SUMMIT - JACKSON COUNTY - MISSOURI

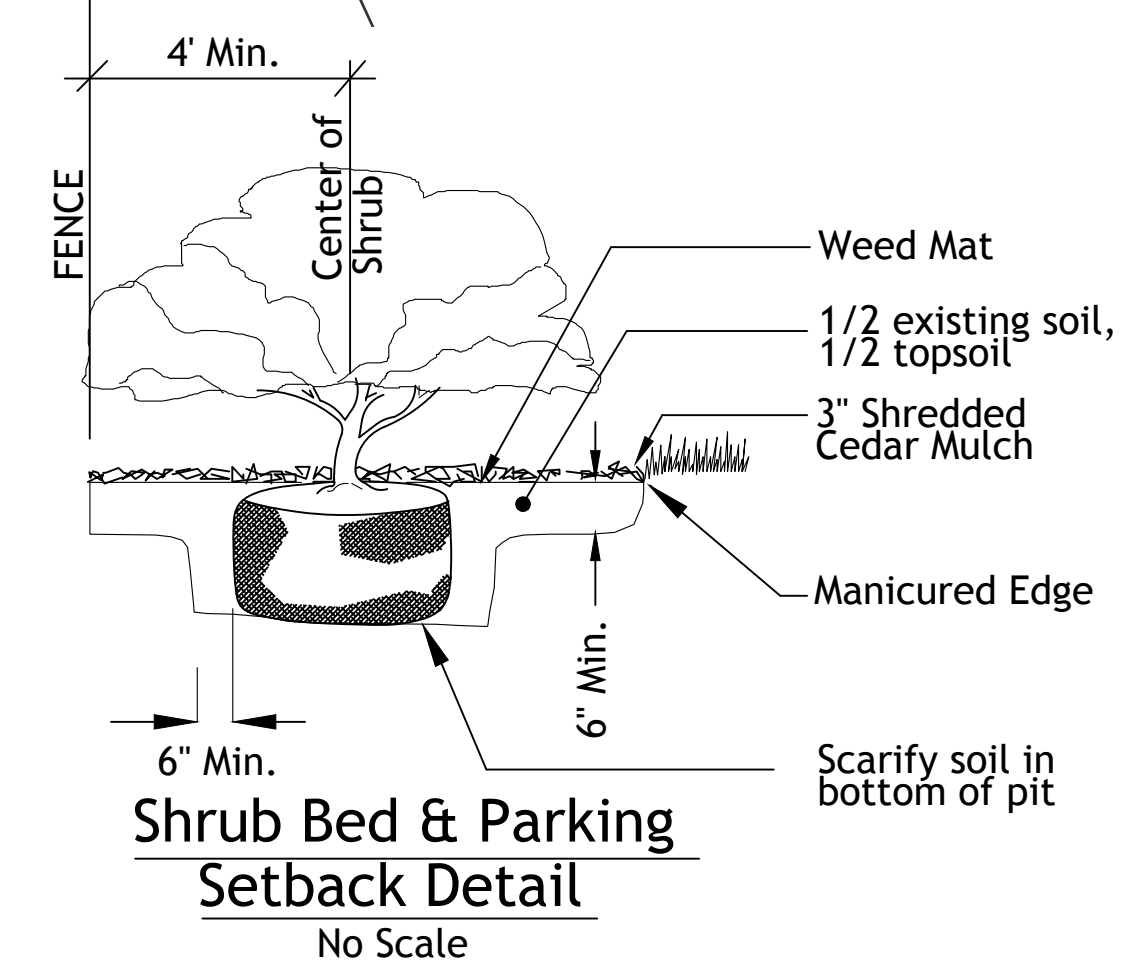
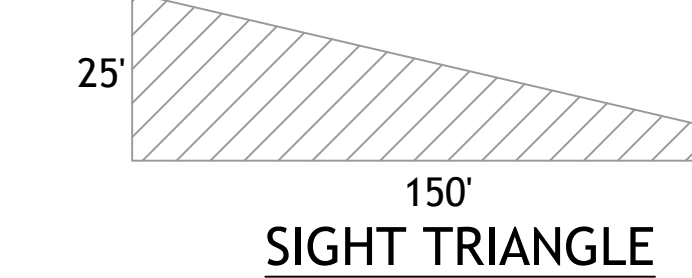
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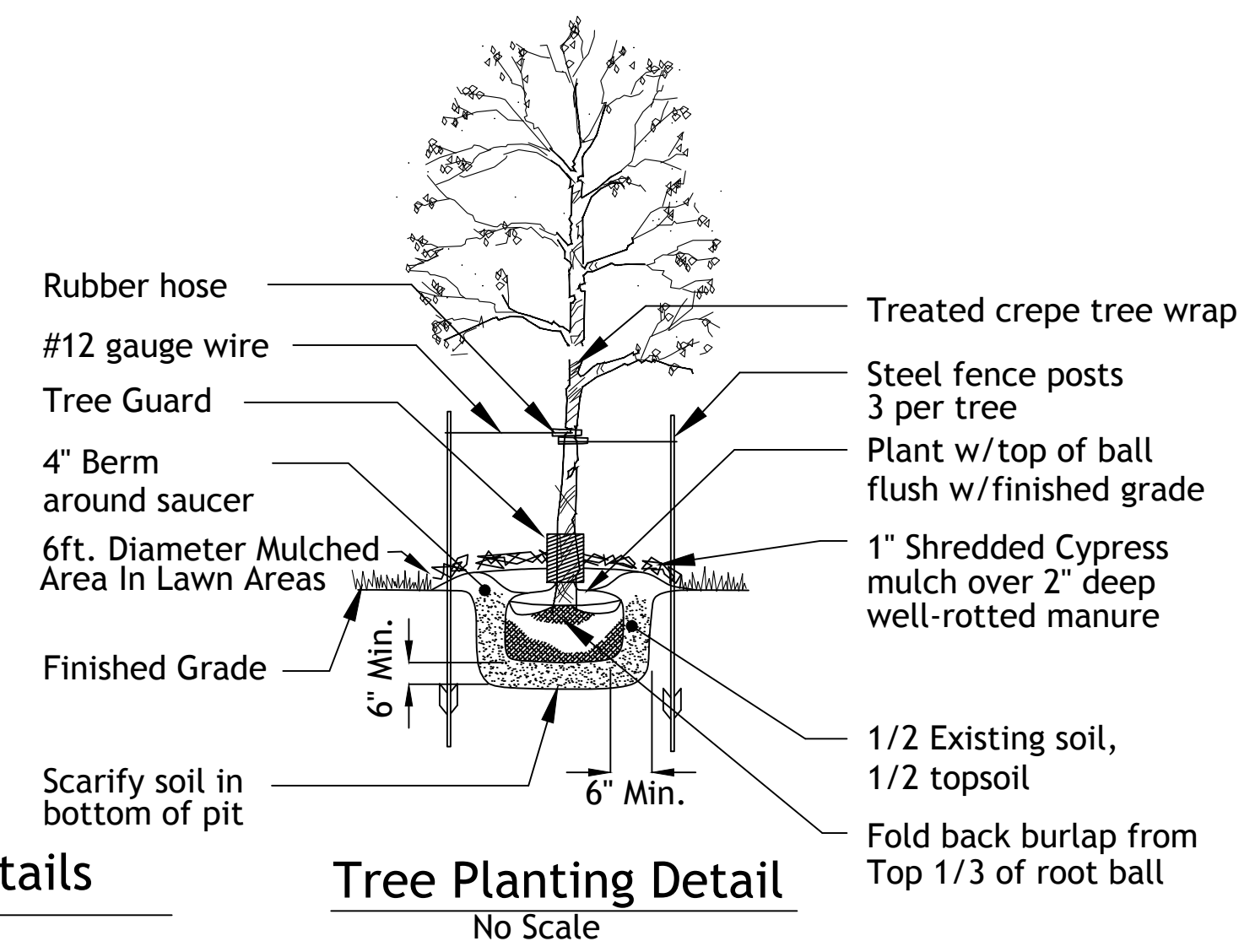


LANDSCAPE DATA:

	REQUIRED	PROVIDED	EXISTING
HAMBLIN ROAD 730'			
STREET TREES 1 PER 30	24	14	10
OPEN SPACE 55,740sf			
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			



Typical Utility Box Screening Details
No Scale



Tree Planting Detail
No Scale

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, of 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 mulched with 3" of shredded cedar mulch.

All sod areas to be fertilized & sodded with a Turf-Type-Tall Fescue seed blend.

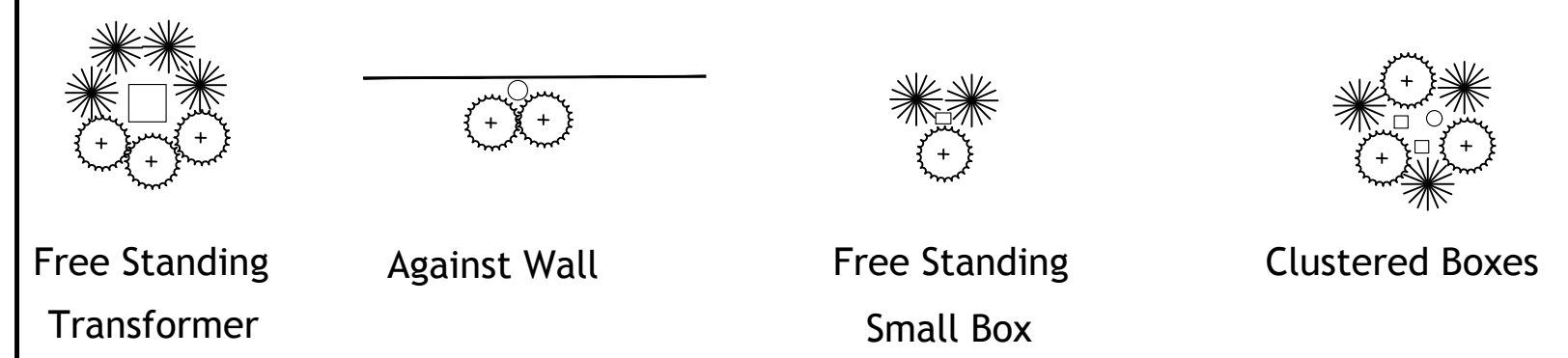
All seed areas shall be hydro-seeded with a Turf-Type-Tall Fescue seed blend.

Shrub List

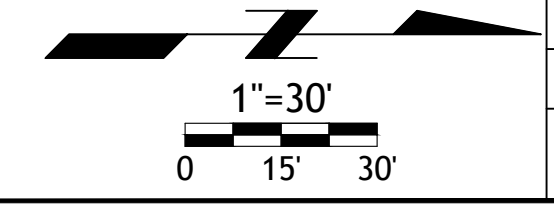
Symbol	Quantity	Common Name	Botanical Name	Size	Condition	Spacing
⊙	35	Seagreen Juniper	Juniperus Chinensis 'Seagreen'	18"-24"sp.	Cont.	4'o.c.
⊗	35	Dwarf Winged Euonymus	Euonymus Alatus 'Compactus'	18"-24"sp.	Cont.	4'o.c.
✱	25	Morning Light Maiden Grass	Miscanthus Sinensis 'Morning Light'	3 gal.	Cont.	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



UTILITY BOXES SHALL BE CLUSTERED AS MUCH AS POSSIBLE

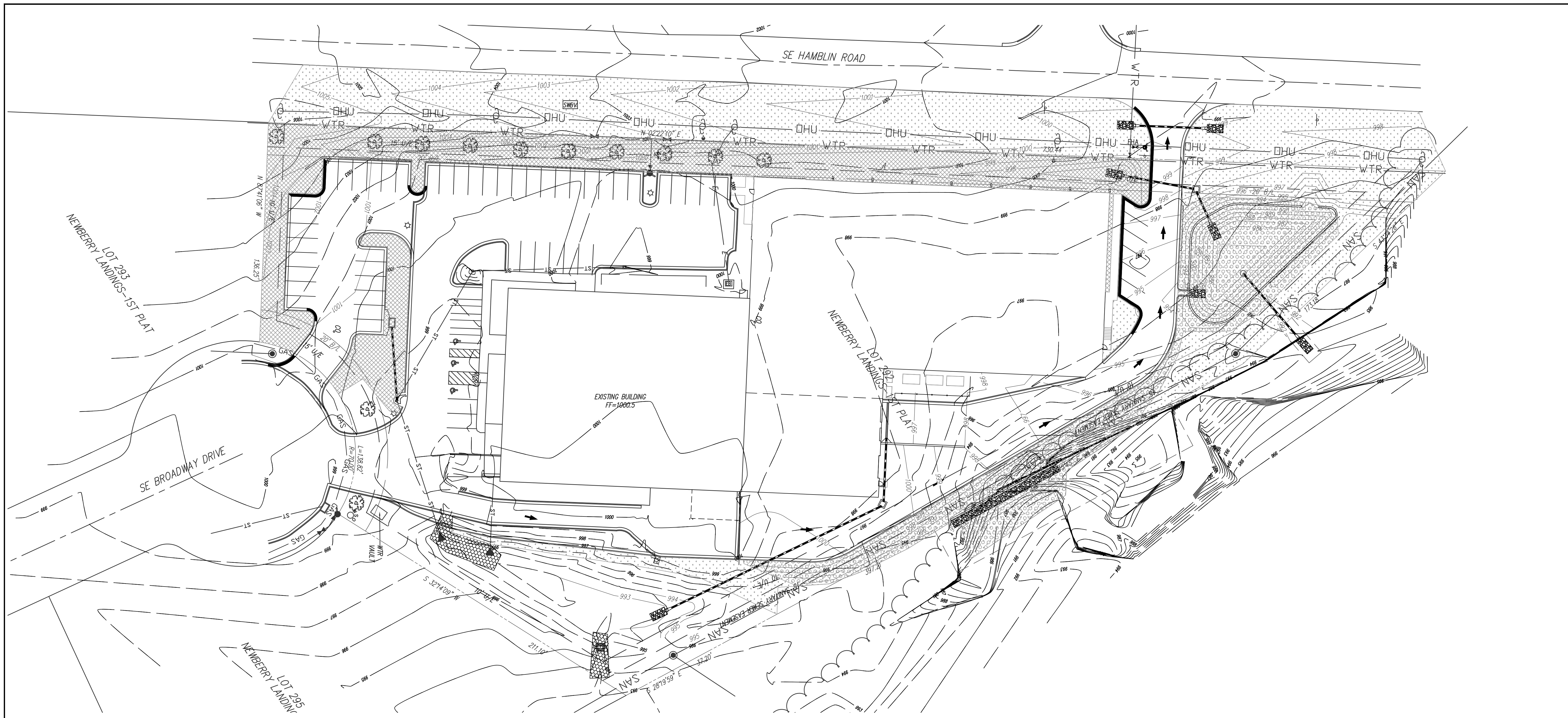


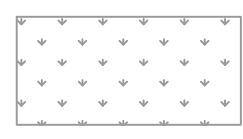
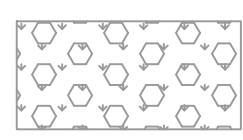
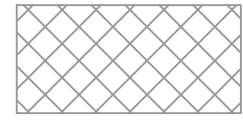
NO.	BY	DATE	REVISION
1	GO	2-28-19	TREE CALIPER
2	GO	5-2-19	MECHANICAL UNITS IN REAR



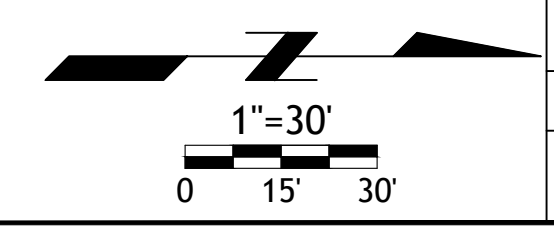
HT SOLUTIONS
LEE'S SUMMIT - JACKSON COUNTY - MISSOURI

LANDSCAPE PLAN



-  SEED AREA 47,040sf
-  TURF REINFORCEMENT MAT 12,500sf
-  SOD AREA 16,907sf

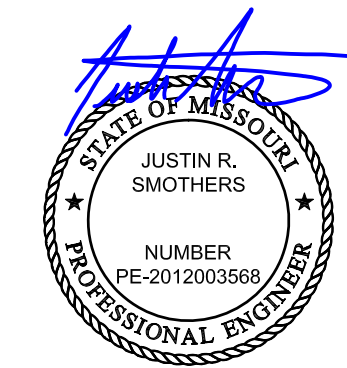
SEED AND SOD NOTES
 ALL SOD AREAS TO BE FERTILIZED & SODDED WITH A TURF-TYPE-TALL FESCUE SEED BLEND.
 ALL SEED AREAS SHALL BE HYDRO-SEEDDED WITH A TURF-TYPE-TALL FESCUE SEED BLEND.



NO.	BY	CHK/APP
1	GO	GO



HT SOLUTIONS
 LEE'S SUMMIT - JACKSON COUNTY - MISSOURI



12-12-18

ENGINEER:



MO COA NO. 2012003568 / KS COA NO. E3918
1901 NW BLUE PARKWAY, UNITY VILLAGE, MO 64085
3rd FLOOR UNITY VILLAGE TOWER
Phone: (816) 276-9289
jim@smothersconsulting.com

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

DATE ISSUED:
12.11.18

REVISIONS:

PROJECT NUMBER
JSC 18-191

SITE
PHOTOMETRIC

ES1

SHEET NUMBER

ELECTRICAL SPECIFICATIONS

- ALL CONDUCTORS SHALL BE THHN COPPER ABOVE GRADE, XHHW-2 BELOW GRADE, MINIMUM #12 OR LARGER AS REQUIRED OR SHOWN.
- ALL SERVICE WIRING, EXPOSED TO WEATHER, OR WIRING BELOW GRADE, SHALL BE IN RIGID GALVANIZED CONDUIT OR SCH. 40 PVC.
- 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.
- THE ENTIRE SYSTEM SHALL BE ELECTRICALLY CONTINUOUS AND PROPERLY GROUNDED. EVERY FEEDER AND BRANCH CONDUIT SHALL HAVE CODE SIZED GREEN INSULATED GROUND CONDUCTOR.
- FURNISH AND INSTALL ALL LIGHTING FIXTURES, LAMPS, FUSES, BREAKERS, ETC. TO COMPLETE THE BRANCH CIRCUITS INDICATED.
- ALL 120V, 20A LIGHTING CIRCUITS REQUIRING MORE THAN 100' OF CONDUCTORS (ONE WAY) SHALL BE #10 CONDUCTORS, MINIMUM.

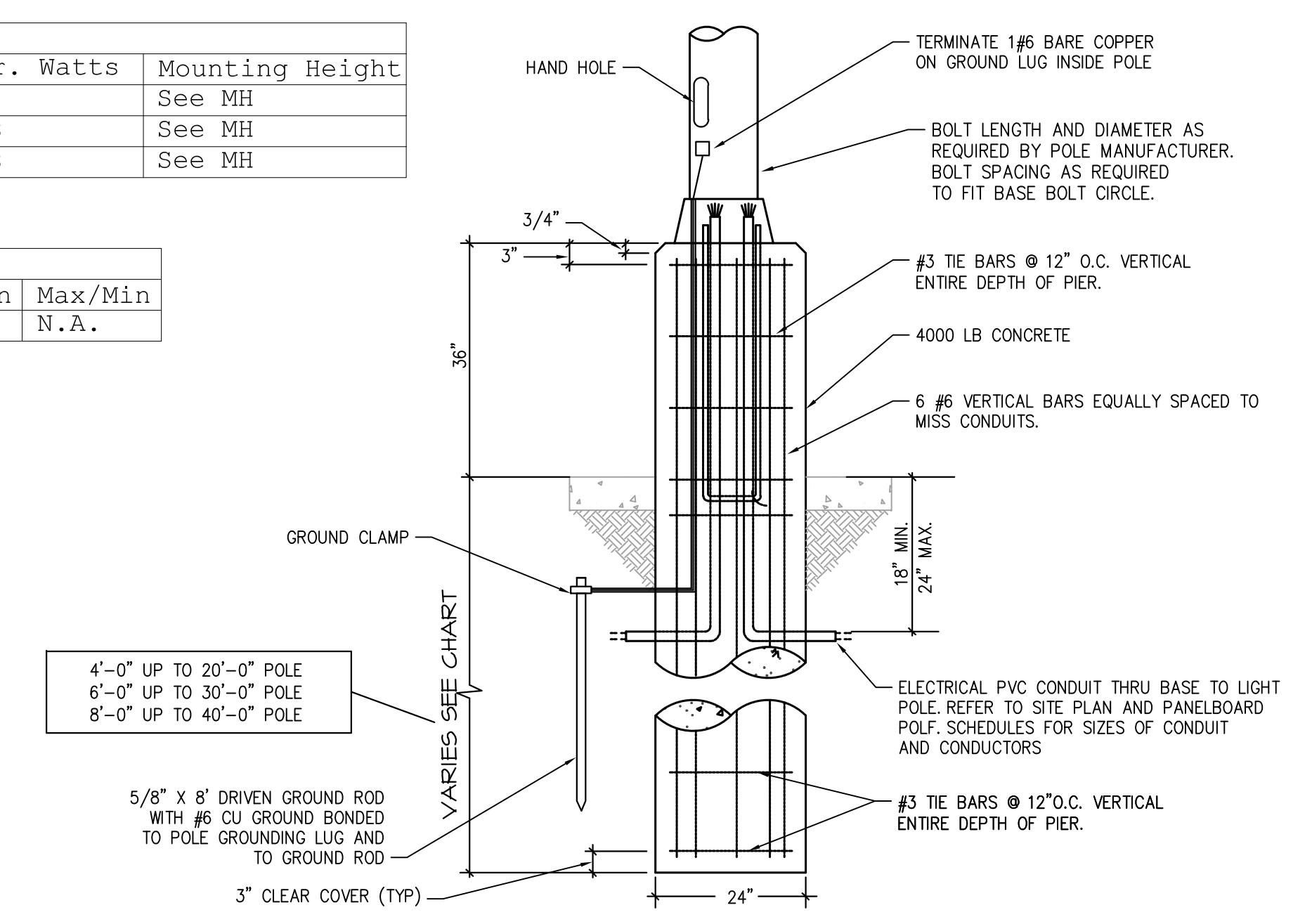
KEYED PLAN NOTES

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

Luminaire Schedule								
Symbol	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

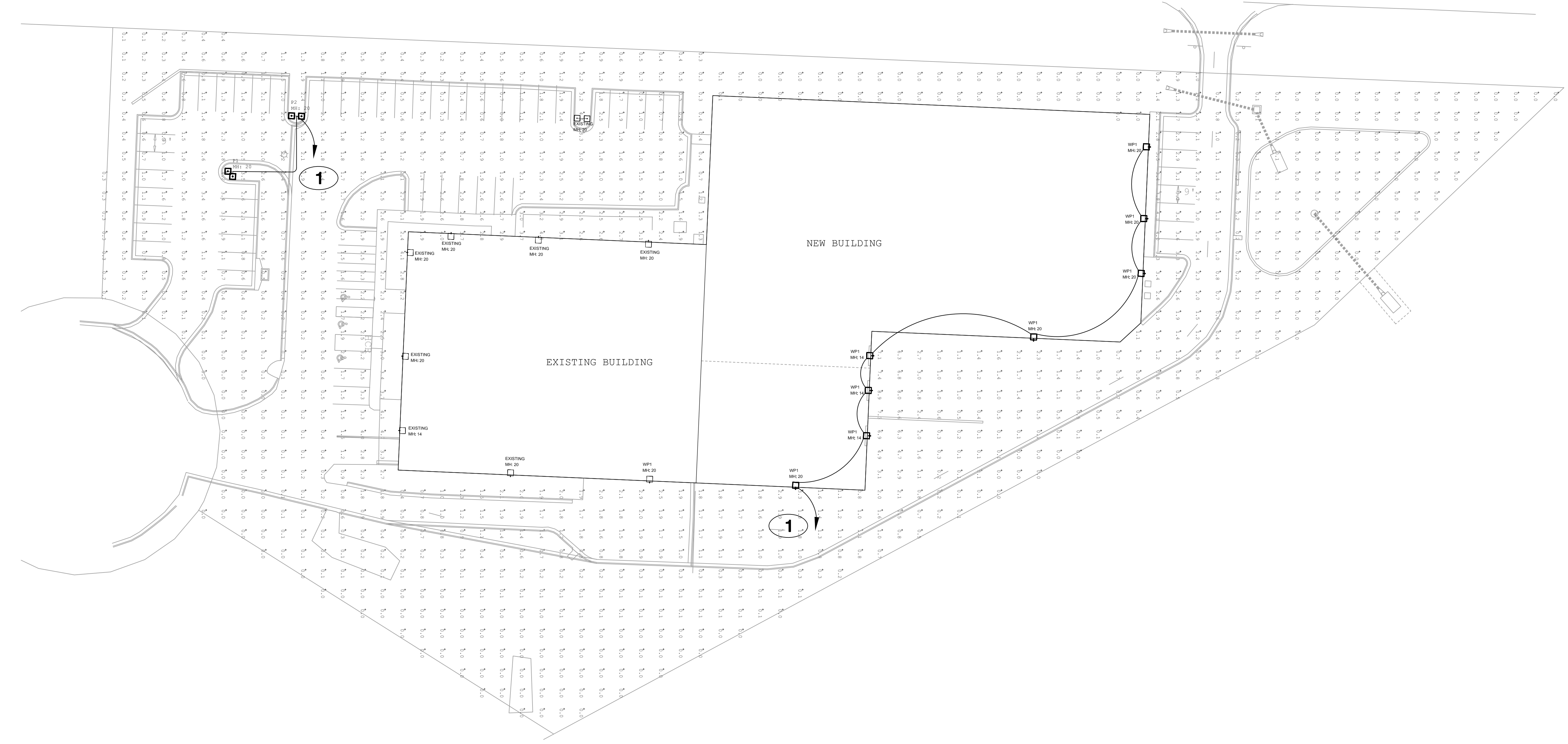
Calculation Summary								
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min	
Site Plan	Illuminance	Fc	0.97	8.9	0.0	N.A.	N.A.	

LPD Area Summary			
Label	Area	Total Watts	LPD
Site Plan	156330	1298	0.008



POLE FOUNDATION DETAIL
SCALE: NONE

2



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

1

