

# West Huron Properties Pavement Improvements 416, 410 & 404 W Huron Street Ann Arbor, MI 48103

## UTILITY COMPANIES

**TELEPHONE**  
AT&T  
550 S MAPLE ROAD  
ANN ARBOR, MI 48103  
PH: 734.996.5322

**ELECTRICAL**  
DETROIT EDISON  
8001 HAGGERTY RD.  
BELLEVILLE, MI 48111  
PH: 734.397.4321

**GAS**  
DTE GAS COMPANY  
ONE ENERGY PLAZA WCB-1710  
DETROIT, MI 48226  
PH: 313.235-1001

**WATER & SEWER**  
CITY OF ANN ARBOR  
301 E. HURON STREET  
ANN ARBOR, MI 48107  
PH: 734.794.6410

**WARNING!**  
THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT UTILITY LOCATIONS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.



Orientation	Scale
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**Project**  
**WEST HURON PROPERTIES, LLC PAVEMENT IMPROVEMENTS**

PERMITS REQUIRED FOR PROJECT		
PERMIT	CITY/AGENCY	APPROVAL
GRADING/ SOIL EROSION	CITY OF ANN ARBOR	
DRAIN USE	W.C.W.R.C.	

## PROJECT DESCRIPTION

PROJECT INCLUDES REMOVING EX. ASPHALT PAVEMENT AND UNDERCUTTING AGGREGATE BASE AS MARKED BY ENGINEER TO SUPPORT PROPOSED HMA PAVEMENT. EXCAVATE EX. GRAVEL LOT TO ALLOW INSTALLATION OF PROPOSED HMA SECTION. ADDITIONAL IMPROVEMENTS INCLUDE THE INSTALLATION OF BIORETENTION AREAS AND PRETREATMENT DEVICES FOR STORM WATER MANAGEMENT. NO CHANGES ARE PLANNED TO EXISTING BUILDINGS AS PART OF THIS PROJECT. NO FIREWALLS EXIST OR WILL BE CONSTRUCTION AS PART OF THIS PROJECT.

## LEGAL DESCRIPTION

TAKEN FROM ABSOLUTE TITLE COMMITMENT #76237, EFFECTIVE DATE MAY 27, 2014.  
COMMENCING AT SOUTHWEST CORNER OF LOT 2, SIPLEY'S SUBDIVISION IN THE CITY OF ANN ARBOR AS RECORDED IN LIBER 2 OF PLATS, PAGE 24, WASHTENAW COUNTY RECORDS, WASHTENAW COUNTY, MICHIGAN; THENCE EASTERLY ALONG THE NORTH LINE OF HURON STREET 14.0 FEET FOR A PLACE OF BEGINNING;

THENCE NORTHERLY DEFLECTING 90° TO THE LEFT 110.0 FEET;  
THENCE WESTERLY DEFLECTING 90° TO THE LEFT 52.56 FEET;  
THENCE ALONG THE WEST LINE OF LOT 13, SAID SIPLEY'S SUBDIVISION DEFLECTING 107°08' TO THE RIGHT 270.63 FEET;  
THENCE DEFLECTING 90° TO THE RIGHT 49.0 FEET;  
THENCE NORTHERLY DEFLECTING 90°18' TO THE LEFT 34.51 FEET;  
THENCE DEFLECTING 20°53' TO THE RIGHT 48.28 FEET;  
THENCE DEFLECTING 12°55' TO THE RIGHT 29.0 FEET;  
THENCE DEFLECTING 30°57' TO THE LEFT 59.0 FEET;  
THENCE DEFLECTING 95°24' TO THE RIGHT 20.32 FEET;  
THENCE SOUTHERLY ALONG THE WEST LINE OF ANN ARBOR RAILROAD COMPANY LANDS ALONG THE ARC OF CIRCULAR CURVE CONCAVE TO THE EAST, RADIUS 1950.08 FEET, SUBTENDED BY A CHORD DEFLECTING 67°56' TO THE RIGHT FROM THE EXTENSION OF THE LAST DESCRIBED COURSE 194.09 FEET.  
THENCE WESTERLY DEFLECTING 86°49' TO THE RIGHT 12.88 FEET;  
THENCE ALONG THE WEST LINE OF ANN ARBOR RAILROAD COMPANY LANDS DEFLECTING 96°24' TO THE LEFT 298.57 FEET;  
THENCE ALONG THE NORTH LINE OF HURON STREET, DEFLECTING 96°34' TO THE RIGHT 184.98 FEET TO THE PLACE OF BEGINNING, BEING LOTS 1 AND 13 AND PART OF LOT 2, SAID SIPLEY'S SUBDIVISION AND OTHER LAND IN THE NORTHWEST ¼ OF SECTION 29, T2S, R6E, CITY OF ANN ARBOR, MICHIGAN.

TOTAL AREA = 71,022 SF = 1.63 AC

## STORM WATER NARRATIVE

THE SUBJECT PROPERTY DRAINS INTO THE ALLEN CREEK, WHICH IS AN ENCLOSED 162" X 96" BOX CULVERT WITH AN ARCHED TOP THAT RUNS NORTH-SOUTH THROUGH THE PROPERTY AND UNDER THE EXISTING PARKING LOT. APPROXIMATELY ½ ACRE OF GRAVEL PARKING LOT IS BEING PROPOSED TO BE PAVED, WHICH WILL HAVE A SLIGHT INCREASE IN THE STORM RUNOFF'S PEAK FLOW AND VOLUME TO THE STORM WATER COLLECTION SYSTEM. THIS WOULD TYPICALLY REQUIRE DETENTION TO MITIGATE FOR ANY RUNOFF INCREASE TO THE ALLEN CREEK DRAIN. HOWEVER, A HYDRAULIC ANALYSIS SHOWS THAT THE PAVING IMPROVEMENTS WILL HAVE A NEGIGIBLE EFFECT ON THE PEAK FLOWS IN THE ALLEN CREEK DRAIN AND A QUICKER RELEASE WILL BENEFIT THE OVERALL WATERSHED AS IT RELATES TO THE TIMING OF THE STORM EVENT. BASED ON OUR HYDRAULIC AND HYDROLOGY STUDY RESULTS AND THE EXISTING 90 FOOT WIDE DRAIN EASEMENT ENCUMBRANCE ON THE PROPERTY THAT WOULD NOT ALLOW ANY STRUCTURE TO BE PLACED WITHIN, DETENTION WILL NOT BE PROVIDED AS PART OF THE IMPROVEMENTS AT THIS SITE.

THE PROPOSED STORM WATER MANAGEMENT PLAN WILL BENEFIT THE WATER QUALITY FOR THIS PROPERTY WITHIN THE ALLEN CREEK WATERSHED. DURING EXISTING STORM EVENTS, THE SEDIMENT FROM THE EXISTING GRAVEL PARKING LOT CAN BE WASHED INTO THE STORM SEWER AND CARRIED DOWNSTREAM. BY REPLACING THE GRAVEL WITH A HARD SURFACE PAVEMENT AND PROVIDING STORM WATER TREATMENT FOR THE COLLECTION SYSTEM, THE WATER SHED WILL BENEFIT FROM A WATER QUALITY STAND POINT PRIOR TO ENTERING THE DRAIN.

## OWNER

W. HURON PROPERTIES  
416 W HURON STREET  
ANN ARBOR, MI 48103

CONTACT: MR. TOM VAN FOSSEN  
PH: 734.922.5803

## OWNER'S REPRESENTATIVE

W. HURON PROPERTIES  
416 W HURON STREET  
ANN ARBOR, MI 48103

CONTACT: MS. CATHY KIMMELL  
PH: 248.921.6879

## ENGINEER/APPLICANT

SME  
43980 PLYMOUTH OAKS BLVD.  
PLYMOUTH, MI 48170

CONTACT: MR. JASON SCHWARTZENBERGER  
PH: 734.454.9900  
www.sme-usa.com

SME PROJECT NO. 081266.00

## ARCHITECT

CORNERSTONE DESIGN, INC  
210 COLLINGWOOD, SUITE 106  
ANN ARBOR, MI 48103

CONTACT: MR. DAVID ESAU, AIA  
PH: 734.663.7580

## SURVEYOR

MIDWESTERN CONSULTING  
3815 PLAZA DRIVE  
ANN ARBOR, MI 48108

CONTACT: MR. PAUL KOVACS, PS  
PH: 734.332.5315

## LIST OF DRAWINGS

SHEET No.	SHEET TITLE
C-100	COVER SHEET
C-200	GENERAL PROJECT NOTES
C-300	ALTA SURVEY
C-400	EXISTING SITE CONDITIONS
C-401	EXISTING UTILITIES PLAN
C-500	SITE LAYOUT PLAN
C-501	VEHICLE TURNING SIMULATIONS
C-600	GRADING, SEC. & STORM WATER MANAGEMENT PLAN
C-700	UTILITY PLAN
C-800	DRAINAGE AREA MAP
L-1	LANDSCAPE DEVELOPMENT PLAN
A-1	PHOTOMETRIC PLAN
D-100	DETAILS
D-101	DETAILS

## SITE DATA

SITE ZONING:	D2 - DOWNTOWN INTERFACE
ZONING NORTH:	D2 - DOWNTOWN INTERFACE
ZONING SOUTH:	PUD - PLANNED UNIT DEVELOPMENT
ZONING EAST:	D2 - DOWNTOWN INTERFACE
ZONING WEST:	R2A - TWO-FAMILY DWELLING
MINIMUM LOT AREA:	NONE
MINIMUM LOT WIDTH:	NONE
USE/AREA	404 W HURON ST - OFFICE/WAREHOUSE/INDUSTRIAL (2,066 SF) 410 W HURON ST - OFFICE, THEATER AND STORAGE (BASEMENT 2,133 SF) (1ST FLOOR 2,722 SF) (2ND FLOOR 1,432 SF) 416 W HURON ST - OFFICE/WAREHOUSE/INDUSTRIAL (BASEMENT 603 SF) (1ST FLOOR 15,376 SF) (2ND FLOOR 7,825 SF)

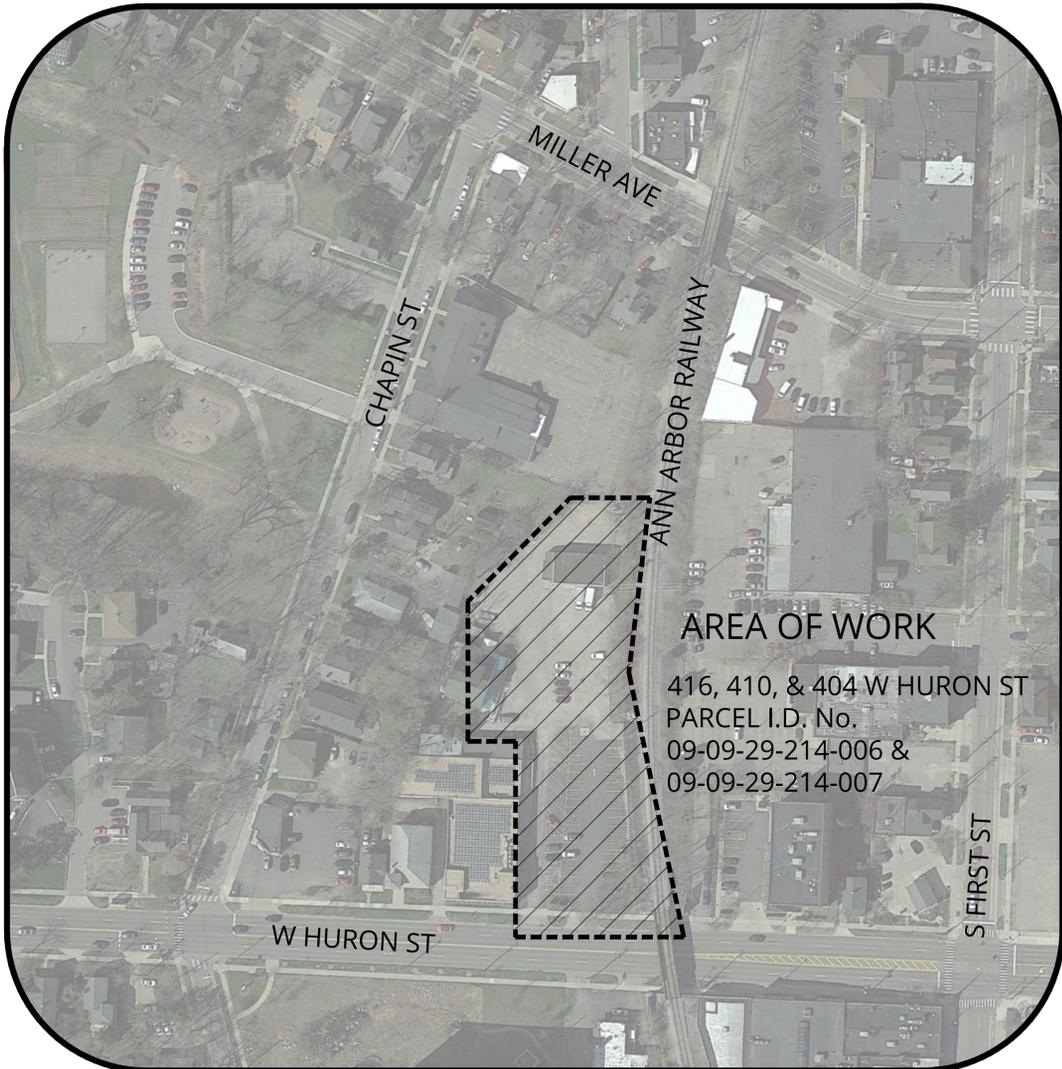
PARKING LOT: A MAXIMUM OF 15 PARKING SPACES ARE ALLOWED IN A PARKING ROW WITHOUT A LANDSCAPE ISLAND BREAK

PARKING:	EXISTING	REQUIRED	TOTAL
	STANDARD STALLS	92	
	ADA STALLS	4	
	TOTAL	96	
	PROPOSED	N/A (D2 ZONING)	
	REQUIRED STALLS	47	
	STANDARD STALLS	21	
	SMALL CAR STALLS	21	
	ADA REQUIRED	4 (1 VAN)	
	ADA PROVIDED	4 (1 VAN)	
	TOTAL	72	

COMPARISON CHART OF REQUIREMENTS			
	EXISTING	REQUIRED	PROPOSED
ZONING CLASSIFICATION	D2	N/A	D2
LOT AREA	71,022 SF/1.63 AC	N/A	71,022 SF/1.63 AC
TOTAL AREA OF ALL FLOORS	20,188 SF	N/A	20,188 SF
FRONT SETBACK	0	0	0
SIDE SETBACK	15 FT	15 FT	15 FT
REAR SETBACK	20 FT	20 FT	20 FT
HEIGHT	60 FT	60 FT	60 FT
STORIES	3	3	3
OFF STREET PARKING	96	N/A	72
BICYCLE PARKING/CLASS	0	3	4

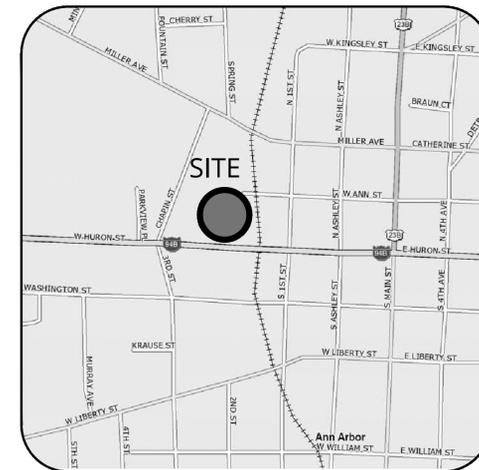
## CONSTRUCTION ESTIMATE

ESTIMATED TOTAL COST OF CONSTRUCTION: \$200,000



### AREA OF WORK

416, 410, & 404 W HURON ST  
PARCEL I.D. No.  
09-09-29-214-006 &  
09-09-29-214-007



### LOCATION MAP NOT TO SCALE



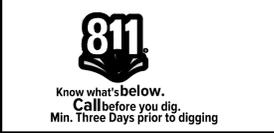
### COUNTY MAP NOT TO SCALE

### OVERALL SITE PLAN NOT TO SCALE

**ISSUED FOR SITE PLAN APPROVAL**



REV	ISSUED FOR	DATE	BY
01	SITE PLAN SUBMITTAL	09/26/2019	NMA
02	SITE PLAN SUBMITTAL	05/19/2020	JAS
03	SITE PLAN PER CITY COMMENTS	07/22/2020	JAS
04	SITE PLAN WCRC SUBMITTAL	10/08/2020	HJC
05	SITE PLAN PER CITY COMMENTS	10/26/2020	HJC
06	SITE PLAN PER CITY COMMENTS	11/11/2020	HJC



Date	08-26-2019
SME Project No.	081266.00
Project Manager:	JAS
Designer:	HJC
CADD:	HJC
Checked By:	BH
Sheet No.	C-100

CONSTRUCTION SITE SAFETY IS THE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME RESPONSIBILITY FOR SAFETY OF THE WORK, OR PERSONS ENGAGED IN THE WORK, OF NEARBY STRUCTURES, NOR OF OTHER PERSONS.

FILE LOCATION: I:\sme-inc\p\WP\081266.00\CAD\DWG\SSPA\rev1\081266.00.Cover.dwg  
Nov 11, 2020 - 12:28pm - ceron  
PLOT DATE: 11/11/2020 12:28:00 PM

## GENERAL NOTES

- MATERIAL AND CONSTRUCTION METHODS SHALL FOLLOW THE PRACTICE DEFINED BY THE 2012 EDITION OF THE MICHIGAN DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" AND APPLICABLE SPECIAL PROVISIONS UNLESS OTHERWISE MODIFIED HEREWITHIN OR IN THE PROJECT SPECIFICATIONS.
- THE LOCATION OF ALL PUBLIC UTILITIES SHOWN ON THESE PLANS IS TAKEN FROM AVAILABLE DATA. OWNER WILL NOT BE RESPONSIBLE FOR ANY OMISSION OR VARIATIONS FROM THE LOCATIONS SHOWN. PURSUANT TO ACT 374 OF THE PA OF 2013 AS A CONDITION OF THIS CONTRACT NOTICE SHALL BE GIVEN TO MISS DIG PRIOR TO UNDERGROUND WORK TO BE PERFORMED IN ACCORDANCE WITH THIS CONTRACT. CALL 811.
- FOR PRIVATE UTILITIES, CONTRACTOR SHALL RETAIN THE SERVICES OF A PRIVATE UTILITY LOCATOR TO LOCATE ALL PRIVATE UTILITIES OWNED BY OWNER.
- CONTRACTOR SHALL NOTIFY OWNER'S REPRESENTATIVE A MINIMUM OF 72 HOURS PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES OR DISRUPTION OF ANY UTILITY.
- THE CONTRACTOR SHALL LOCATE ALL ACTIVE UNDERGROUND UTILITIES PRIOR TO STARTING WORK AND SHALL CONDUCT HIS OPERATIONS IN SUCH A MANNER AS TO ENSURE THAT THOSE UTILITIES NOT REQUIRING RELOCATION WILL NOT BE DISTURBED. CONTRACTOR SHALL BE RESPONSIBLE TO REPAIR UTILITIES DAMAGED DURING CONSTRUCTION. SPRINKLER SYSTEMS SHALL BE REPAIRED BY CONTRACTOR AT NO COST TO OWNER.
- THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS IN SUCH A MANNER TO COMPLY WITH ALL FEDERAL, STATE, AND LOCAL CODES FOR NOISE LEVELS, VIBRATIONS, OR ANY OTHER RESTRICTIONS WHILE REMOVING PAVEMENT OR FOR ANY OTHER CONSTRUCTION OPERATIONS WITHIN THIS CONTRACT TO BE INCLUDED IN THE RESPECTIVE ITEM OF WORK.
- CONTRACTOR AGREES TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROTECTION OF PROPERTY.
- THE CONTRACTOR SHALL DESIGN, CONSTRUCT, AND MAINTAIN ALL SAFETY DEVICES, AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE, AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS, AND REGULATIONS. ALL TRAFFIC CONTROL ACTIVITIES SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST VERSION OF THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AND SHALL SUBMIT ALL REQUESTS TO OWNER'S REPRESENTATIVE AT LEAST SEVENTY-TWO (72) HOURS PRIOR TO THE ANTICIPATED NEED TO CLOSE AREAS.
- CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY NECESSARY PERMITS AND CONFORMING TO ALL APPLICABLE PERMIT REQUIREMENTS.
- CONTRACTOR SHALL SUBMIT ALL MATERIAL SUBMITTALS REQUIRED BY THE PROJECT SPECIFICATIONS INCLUDING ASPHALT CONCRETE AND PORTLAND CEMENT CONCRETE MIX DESIGNS TO OWNER AND/OR OWNER'S REPRESENTATIVE A MINIMUM OF 14 DAYS PRIOR TO BEGINNING FIELD WORK.
- CONTRACTOR IS RESPONSIBLE FOR LAYOUT AND FIELD VERIFICATION. ADJUST CATCH BASINS AS REQUIRED. CONTRACTOR IS RESPONSIBLE FOR PROVIDING POSITIVE DRAINAGE. (MIN. 1.5%). DRAINAGE ISSUES SHALL BE BROUGHT TO THE ATTENTION OF SME PRIOR TO PLACEMENT OF ANY PAVEMENT STRUCTURE LAYERS. AREAS OF PONDING WATER SHALL BE REPAIRED BY FULL DEPTH PATCHING AT NO ADDITIONAL COST TO OWNER. CONTRACTOR SHALL PERFORM WALKTHROUGH WITH OWNER AND SME BEFORE PLACEMENT OF ASPHALT CONCRETE LEVELING COURSE TO REVIEW PROPOSED GRADES.
- OBJECTS DESIGNATED TO REMAIN INCLUDING SIDEWALKS, PAVEMENT, CURB, LIGHT POLES, TRAFFIC SIGNS, LANDSCAPE AREAS, ETC. SHALL BE PROTECTED. IF DAMAGED BY THE CONTRACTOR, IT SHALL BE REPAIRED TO OWNER SATISFACTION AT NO ADDITIONAL COST TO THE OWNER.
- UPON COMPLETION OF EACH DAY OF WORK, THE CONTRACTOR SHALL BE RESPONSIBLE FOR LEAVING THE WORK AREA FREE OF HAZARDS AND SHALL PROVIDE ALL NECESSARY TEMPORARY SIGNS, WARNING DEVICES, AND BARRICADES.
- THE CONTRACTOR SHALL HAVE AN APPROVED SET OF FINAL PLANS MARKED "FOR CONSTRUCTION" ON THE JOB SITE AT ALL TIMES. THE CONTRACTOR SHALL KEEP ACCURATE AND LEGIBLE RECORDS OF ALL CHANGES OF WORK THAT OCCUR DURING CONSTRUCTION AND INFORMATION ON "AS-BUILT" CONDITIONS. DOCUMENTATION OF CHANGES AND AS-BUILT INFORMATION SHALL BE RECORDED ON AN APPROVED SET OF FINAL PROJECT PLANS AND DELIVERED TO SME AFTER COMPLETION OF WORK.
- THE CONTRACTOR SHALL TAKE THE NECESSARY STEPS TO PROTECT THE PROJECT AND ADJACENT PROPERTY FROM ANY EROSION AND SILTING THAT RESULT FROM THE CONSTRUCTION BY APPROPRIATE MEANS UNTIL SUCH TIME THE PROJECT IS COMPLETED AND ACCEPTED FOR MAINTENANCE BY OWNER.

## SURVEY NOTE

- THE SITE PLANS WERE DEVELOPED BASED ON DRAWINGS PROVIDED BY THE OWNER AND A TOPOGRAPHICAL SURVEY BY MIDWESTERN CONSULTING DATED 06-12-14. TOPOGRAPHICAL SURVEY UPDATED BY MIDWESTERN CONSULTING ON 07-24-2019. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING LOCATIONS OF EXISTING STRUCTURES AND VERIFYING QUANTITIES. THE CONTRACTOR IS RESPONSIBLE FOR FINAL LAYOUT AND PROVIDING POSITIVE DRAINAGE.

## EARTHWORK NOTES

- ALL NATURAL SOIL LEFT IN PLACE. IN CUT SECTIONS, SHALL BE COMPACTED TO NOT LESS THAN 95 PERCENT OF MAXIMUM DRY DENSITY OF THE MATERIAL AS DETERMINED BY THE MODIFIED PROCTOR TO A MINIMUM DEPTH OF 12 INCHES.
- THE LIMIT OF EARTH DISTURBANCE SHALL BE THE SLOPE STAKE LINE UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- ALL SLOPES SHALL BE CLASS A SLOPES.
- AREAS DISTURBED BY THE CONTRACTOR OR SUBCONTRACTOR SHALL BE RESTORED AS SPECIFIED IN THE SOIL EROSION AND SEDIMENTATION CONTROL PLAN, RESTORATION PLAN OR DIRECTED BY THE ENGINEER. NO ADDITIONAL PAYMENT OR COMPENSATION WILL BE ALLOWED FOR AREAS DISTURBED OUTSIDE THE SLOPE STAKE LINE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE PROPERTY BEYOND THE GRADING LIMITS, INCLUDING EXISTING FENCING, LAWN, TREES, SHRUBBERY, AND SIDEWALKS.

## EARTH EXCAVATION NOTES

- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE TEMPORARY STORAGE AREAS FOR EXCAVATED MATERIAL WHICH MAY BE USED AS EMBANKMENT MATERIAL IN OTHER AREAS IF IT IS SUITABLE MATERIAL AS DETERMINED BY THE ENGINEER, ANY EXTRA HANDLING OF EXCAVATED MATERIAL IS CONSIDERED INCLUDED IN THESE PAY ITEMS.
- EXCAVATION DROP-OFFS GREATER THAN 8 INCHES SHALL BE PROTECTED BY 4 FT TALL ORANGE PLASTIC SAFETY FENCE (SNOW FENCE) SECURELY ATTACHED TO GROUND DRIVEN STAKES WHEN LEFT OVERNIGHT. SAFETY FENCING SHALL BE MAINTAINED UNTIL AREA IS WITHIN 8 INCHES OF ADJACENT GRADE. PAYMENT FOR THIS WORK IS INCLUDED IN TRAFFIC CONTROL LUMP SUM UNIT PRICE.

## SOIL BORING NOTES

- THE SOIL BORINGS LOGS DEPICT POINT LOCATIONS AND DO NOT INFER THAT THE SURFACE CONDITIONS ARE THE SAME IN OTHER AREAS. BORING LOCATIONS ARE SHOWN ON THE PLANS, SOIL BORING LOGS ARE INCLUDED IN THE SPECIFICATIONS.

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CONSTRUCTION SITE SAFETY IS THE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME RESPONSIBILITY FOR SAFETY OF THE WORK, OR PERSONS ENGAGED IN THE WORK, OR NEARBY STRUCTURES, NOR OF OTHER PERSONS.

## SITE GRADING NOTES

- PROPOSED ELEVATIONS ARE SHOWN WHERE SIGNIFICANT GRADE CHANGES ARE ANTICIPATED. IF PROPOSED GRADES ARE NOT SHOWN THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING POSITIVE DRAINAGE WITH MIN. SLOPE OF 1.0%. LONGITUDINAL SLOPE ALONG GUTTER LINES SHALL BE 0.5% MIN.
- PRIOR TO INSTALLING ANY PAVEMENT LAYERS, THE CONTRACTOR SHALL REVIEW THE PROPOSED SITE GRADES WITH THE ENGINEER TO IDENTIFY AND RECTIFY ANY COMPLICATIONS.
- PROPOSED SIDEWALKS SHALL HAVE MIN. 1.0% AND MAX. 2.0% CROSS SLOPE.
- CONTRACTOR SHALL ADJUST ALL UTILITY RIMS LOCATED WITHIN THE WORK LIMITS AS NECESSARY TO BE FLUSH WITH THE PROPOSED FINISHED SURFACE. THIS INCLUDES ALL STORM MANHOLES, CATCH BASINS, CLEANOUTS, SANITARY MANHOLES AND CLEANOUTS, WATER MAIN MANHOLES, GATE VALVES, AND BOXES OR ANY OTHER UTILITY RIMS OR BOXES.
- WHERE PROPOSED PAVEMENT ABUTS EXISTING PAVEMENT DESIGNATED TO REMAIN, MATCH ELEVATIONS UNLESS INDICATED OTHERWISE.
- ADJUST GUTTER PAN FROM SPILL IN TO SPILL OUT AS REQUIRED TO ACHIEVE POSITIVE DRAINAGE.
- ADJUST ELEVATION OF CURB REPAIRS AS REQUIRED TO ACHIEVE POSITIVE DRAINAGE.
- TAPER CURB HEIGHT TO 0" IN 10' WHEN ABUTTING TO EX. PAVEMENT WITHOUT CURB.

## GENERAL PAVING NOTES

- NEW PAVEMENT SHALL BE OF THE TYPE, THICKNESS AND CROSS-SECTION INDICATED ON THE PLANS.
- MATCH EXISTING ELEVATIONS WHERE NEW PAVEMENT ABUTS EXISTING PAVEMENTS OR OTHER FIXED OBJECTS.
- CONTRACTOR SHALL MATCH EXISTING STRIPING PATTERNS UNLESS OTHERWISE REQUIRED BY THE OWNER'S REPRESENTATIVE. CONTRACTOR SHALL DOCUMENT EXISTING STRIPING PATTERN PRIOR TO REMOVAL OF ANY PAVEMENT.
- CONTRACTOR IS RESPONSIBLE FOR LAYOUT TO PROVIDE POSITIVE SITE DRAINAGE. WATER PONDING AND BIRD BATHS SHALL BE CORRECTED AS DIRECTED BY THE OWNER'S REPRESENTATIVE AT NO ADDITIONAL COST TO THE OWNER.
- NEW AGGREGATE BASE REQUIRED SHALL BE MDOT 21AA CRUSHED LIMESTONE MATERIAL.
- SUBGRADE SOIL FOUND TO BE UNSUITABLE SHALL BE RECONDITIONED OR REPLACED AS DIRECTED BY THE OWNER, INCLUDING THE NECESSARY FINE GRADING TO ENSURE THAT MINIMUM SPECIFIED PAVEMENT THICKNESS IS ACHIEVED.

## TRAFFIC CONTROL NOTES

- OBTAIN WRITTEN PERMISSION FROM OWNER'S REPRESENTATIVE WHEN ROADS, SIDEWALKS AND PARKING LOTS NEED TO BE CLOSED PRIOR TO CLOSING ANY PAVED AREA.
- SUBMIT ALL REQUESTS TO OWNER'S REPRESENTATIVE AT LEAST SEVENTY-TWO (72) HOURS PRIOR TO THE ANTICIPATED NEED TO CLOSE ANY PAVED AREA.
- PROVIDE ALTERNATE TRAFFIC ROUTES AROUND CLOSED OR OBSTRUCTED TRAFFIC ROUTES AS NECESSARY OR REQUIRED BY OWNER'S REPRESENTATIVE.
- THE CONTRACTOR IS RESPONSIBLE FOR FURNISHING, PLACING AND MAINTAINING ALL TRAFFIC CONTROL DEVICES ACCORDING TO THE LATEST EDITION OF THE "MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES."

## DEMOLITION NOTES

- SAWCUT FULL DEPTH THE PAVEMENT, SIDEWALK AND CURB DESIGNATED TO BE REMOVED AT THE LIMITS OF WORK SHOWN ON THE PLANS OR MARKED IN THE FIELD.
- REMOVE ONLY THE STRUCTURES AND PAVEMENTS WITHIN THE LIMITS OF WORK AS DETAILED ON THE PLANS AND CROSS SECTIONS. ALL OTHER STRUCTURES AND PAVEMENT SHALL BE PROTECTED AS REQUIRED.
- ALL EXISTING UNDERGROUND UTILITIES WITHIN THE AREA OF WORK SHALL REMAIN AND BE PROTECTED DURING CONSTRUCTION, UNLESS OTHERWISE DESIGNATED TO BE REMOVED. CONTRACTOR SHALL VERIFY EXACT LOCATION AND DEPTHS OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF DEMOLITION OPERATIONS.
- CONTRACTOR SHALL DISPOSE OF ALL CONCRETE, ASPHALT, AGGREGATE BASE AND SUBGRADE SPOTS AT LEGAL DISPOSAL SITE. CONTRACTOR SHALL PAY FOR ALL TRUCKING AND DISPOSAL COSTS.

## CURB REPAIR NOTES

- SAWCUT THE CURB AREAS DESIGNATED FOR REPAIR AT THE LIMITS MARKED IN THE FIELD BY OWNER'S REPRESENTATIVE.
- REMOVE EXISTING CONCRETE WITHOUT CAUSING DAMAGE OR SPALLING TO ADJACENT SIDEWALK OR CURBS WHICH ARE DESIGNATED TO REMAIN. DAMAGED AREAS SHALL BE REMOVED AND REPLACED TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST.
- DRILL AND EPOXY GROUT TWO (2) #5 (18 INCH LONG EPOXY COATED) DEFORMED BARS A MINIMUM OF 6 INCHES INTO EXISTING CONCRETE CURBS (TWO FACES) WHICH ARE DESIGNATED TO REMAIN.
- MATCH EXISTING CURB GEOMETRY.
- PLACE AND CONSOLIDATE CONCRETE IN THE REPAIR AREA TO MATCH THE ELEVATION OF ADJACENT CURB AND SIDEWALK AREAS TO MAINTAIN POSITIVE DRAINAGE. FINISH CURBS TO MATCH FINISH OF ADJACENT AREAS WHICH ARE DESIGNATED TO REMAIN.
- VOID/HOLES (HONEYCOMB AREAS) ON THE CURB BACK/FACE SHALL BE REPAIRED WITH CEMENT MORTAR PASTE TO THE SATISFACTION OF THE OWNER.

## CLEANUP AND RESTORATION NOTES

- CLEAN AND RESTORE ALL DISTURBED AREAS WITH 4 INCHES OF TOPSOIL, HYDROSEED AND HIGH VELOCITY MULCH BLANKETS. DISPOSE OF DEBRIS OFFSITE AT APPROVED DISPOSAL SITE.
- UPON COMPLETION OF WORK, THE ENTIRE SITE SHALL BE CLEARED OF EQUIPMENT, UNUSED MATERIALS, AND RUBBISH AND ANY DISTURBED AREAS RESTORED TO THE SATISFACTION OF THE OWNER.
- FINAL PAYMENT WILL NOT BE MADE UNTIL THE SITE IS CLEARED, RESTORED AND CLEANED PER THE PROJECT SPECIFICATIONS.

## ABBREVIATIONS USED IN DRAWINGS

THE FOLLOWING ABBREVIATIONS ARE USED ON THESE PLANS:

@	AT (RATE OF)
&	AND
"	INCH
'	FOOT
#	NUMBER
AC	ASPHALT CONCRETE
ADA	AMERICANS WITH DISABILITIES ACT (BARRIER FREE ACCESS)
AGG	AGGREGATE BASE
ALT	ALTERNATE
APPROX.	APPROXIMATE/APPROXIMATELY
ARCH.	ARCHITECT
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AVG	AVERAGE
B	BORING
BDY	BOUNDARY
BIT	BITUMINOUS
BF	BARRIER FREE
BFF	BANK FULL FLOOD
BLDG	BUILDING
BM	BENCHMARK
BOT	BOTTOM
BRG	BEARING
BSMT	BASEMENT
C	CORE
CAP	CAPACITY
CB	CATCH BASIN
CENTL	CENTERLINE
CF	CUBIC FEET
CHAN.	CHANNEL
CI	CONTROL JOINT
CLS	CRUSHED LIMESTONE
CL	CLASS
CMP	CORRUGATED METAL PIPE
CMU	CONCRETE MASONRY UNIT
COEF	COEFFICIENT
COL	COLUMN
CO	CLEAN OUT
CONC.	CONCRETE
CONN.	CONNECTION
COV.	COVER
CULV.	CULVERT
CRB	CURB
CY	CUBIC YARD
DIA.	DIAMETER
DI	DUCTILE IRON
DIM.	DIMENSION
DEG.	DEGREE
DEMO.	DEMOLITION
DEPT.	DEPARTMENT
DMH	DROP MANHOLE
DS	DOWNSPOUT
EA	EACH
E	EAST
EE	EACH END
EG	EDGE OF GRAVEL
ELEV.	ELEVATION
EM	EDGE OF METAL
ENG.	ENGINEER
ENT.	ENTRANCE
EQUIP.	EQUIPMENT
ES	END SECTION
EXCAV.	EXCAVATE
EX.	EXISTING
EXPN	EXPANSION
FD	FLOOR DRAIN
FDC	FIRE DEPARTMENT CONNECTION
FDN	FOUNDATION
FDR	FULL DEPTH RECLAMATION
FF	FINISH FLOOR
FG	FINISH GRADE
FURN.	FURNISH
FP	FLOOD PLAIN
FT	FEET/FOOT
FTG	FOOTING
ELEV.	ELEVATION
EQUIP.	EQUIPMENT
GAL.	GALLON
GEN.	GENERAL
GU	GUTTER
GVA	GATE VALVE
GVL	GRAVEL
HD	HEAVY DUTY
HDPE	HIGH DENSITY POLYTHYLENE
HP	HIGH POINT
HGL	HYDRAULIC GRADE LINE
HMA	HOT MIX ASPHALT
HORIZ.	HORIZONTAL
HYD	HYDRANT
INT	INSTALL
LD	LIGHT DUTY
LF	LINEAR FEET
LP	LOW POINT
MAX.	MAXIMUM
ME	MATCH EXISTING
MDOT	MICHIGAN DEPARTMENT OF TRANSPORTATION
MH	MANHOLE
MIN.	MINIMUM
N	NORTH
NIC	NOT IN CONTRACT
NO	NUMBER
NFY	NOT FIELD VERIFIED
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
PCC	PORTLAND CEMENT CONCRETE
PVC	POLYVINYL CHLORIDE
PR	PROPOSED
RCP	REINFORCED CONCRETE PIPE
RY	REAR YARD
S	SOUTH
SAN	SANITARY SEWER
SB	STABILIZED BASE COURSE
SESC	SOIL EROSION AND SEDIMENT CONTROL
SF	SQUARE FEET
SG	SUBGRADE
STM	STORM SEWER
SY	SQUARE YARD
TA	TOP OF HMA PAVEMENT ELEVATION
TC	TOP OF PROPOSED CURB
TERS	TEMPORARY EARTH RETENTION SYSTEM
TP	TEST PIT
TYP.	TYPICAL
TW	TOP OF SIDEWALK
VB	VAPOR BARRIER
VCP	VITRIFIED CLAY PIPE
VERT.	VERTICAL
VIF	VERIFY IN FIELD
VLT	VAULT
VOL	VOLUME
W	WEST
BOW	BOTTOM OF WALL
WM	WATER MAIN
TOW	TOP OF WALL
WTR	WATER
WWF	WELDED WIRE FABRIC

## DEFINITIONS USED IN DRAWINGS

THE FOLLOWING DEFINITIONS ARE USED ON THESE PLANS:

ENGINEER	SME
CITY	ANN ARBOR
COUNTY	WASHTENAW COUNTY
OWNER	W HURON PROPERTIES



www.sme-usa.com



Orientation	Scale
-------------	-------

**Project**

**WEST HURON PROPERTIES, LLC PAVEMENT IMPROVEMENTS**

**Project Location**

**416, 410 & 404 W. HURON ST. ANN ARBOR, MI 48103**

**Sheet Name**

**GENERAL PROJECT NOTES**

**Engineer's Seal**

**Revisions**

REV	ISSUED FOR	DATE	BY
01	SITE PLAN SUBMITTAL	09/26/2019	NMA
02	SITE PLAN SUBMITTAL	05/19/2020	JAS
03	SITE PLAN PER CITY COMMENTS	07/22/2020	JAS
04	SITE PLAN WCWR SUBMITTAL	10/08/2020	HJC
05	SITE PLAN PER CITY COMMENTS	10/26/2020	HJC
06	SITE PLAN PER CITY COMMENTS	11/11/2020	HJC

Date	<b>08-26-2019</b>
------	-------------------

SME Project No.	<b>081266.00</b>
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Project Manager:	<b>JAS</b>
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Designer:	<b>HJC</b>
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CADD:	<b>HJC</b>
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Checked By:	<b>BH</b>
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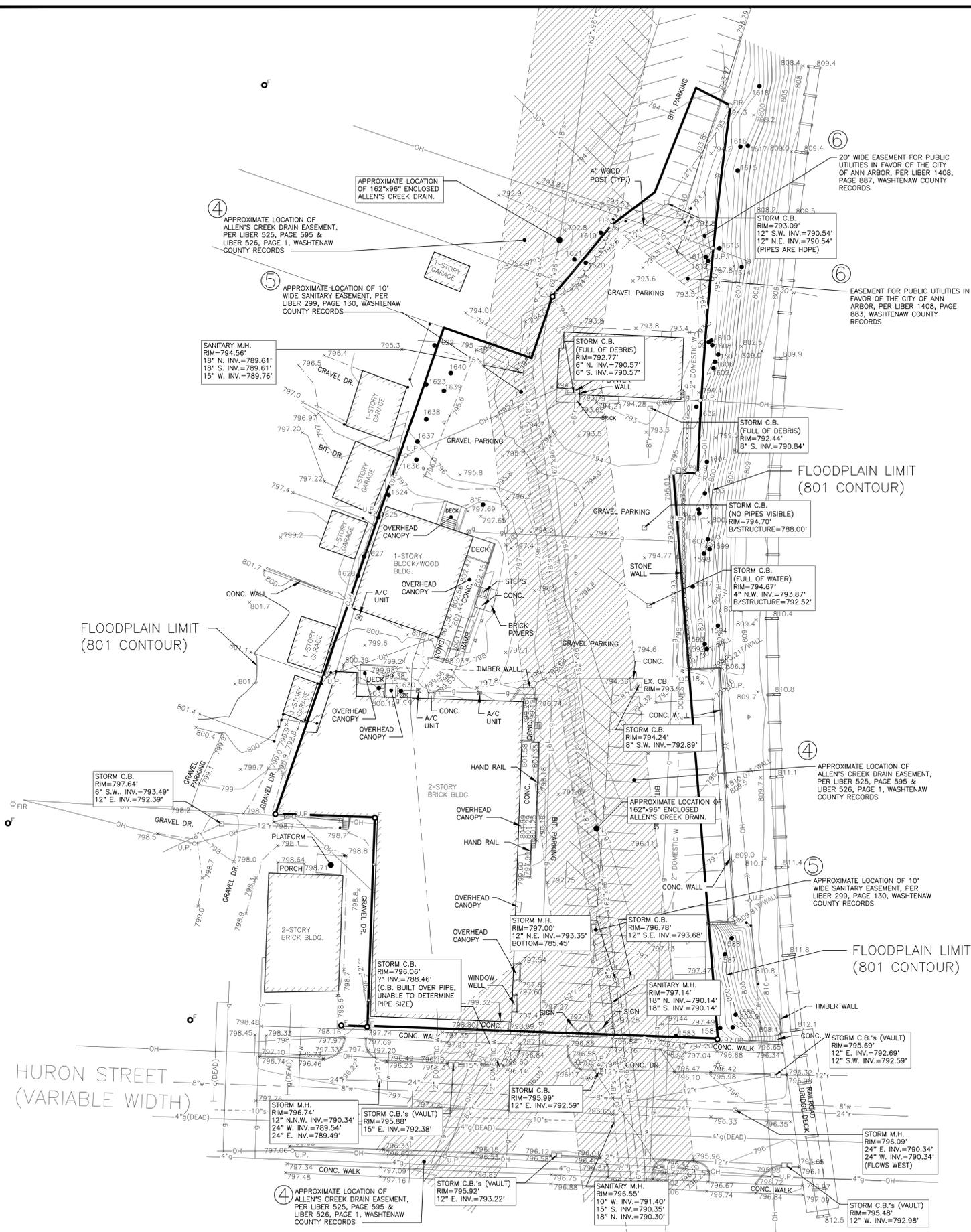
Sheet No.	<b>C-200</b>
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DRAWING NOTE: SCALE DERIVED IS MEANT FOR 24" X 36" AND WILL SCALE INCORRECTLY IF PRINTED ON ANY OTHER SIZE PLOT.  
NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR CONSENT OF SME  
C-200

**ISSUED FOR SITE PLAN APPROVAL**

FILE LOCATION: I:\sme-inc\p\WP\081266.00\CADD\DWG\SS\PA\rev19\081266.00-Notes.dwg  
Nov 11, 2020 - 12:23pm - ceron  
PLOT DATE:

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**LEGAL DESCRIPTION**

Taken from Absolute Title Commitment #76237, Effective Date May 27, 2014.

Commencing at southwest corner of Lot 2, Siple's Subdivision in the City of Ann Arbor as recorded in Liber 2 of Plats, Page 24, Washtenaw County Records, Washtenaw County, Michigan; thence easterly along the north line of Huron Street 14.0 feet for a Place of Beginning;

thence northerly deflecting 90° to the left 110.0 feet;  
 thence westerly deflecting 90° to the left 52.56 feet;  
 thence along the west line of Lot 13, said Siple's Subdivision deflecting 107°08' to the right 270.63 feet;

thence deflecting 90° to the right 49.0 feet;  
 thence northerly deflecting 90°18' to the left 34.51 feet;  
 thence deflecting 20°53' to the right 48.28 feet;  
 thence deflecting 12°55' to the right 29.0 feet;  
 thence deflecting 30°57' to the left 59.0 feet;  
 thence deflecting 95°24' to the right 20.32 feet;

thence southerly along the west line of Ann Arbor Railroad Company lands along the arc of a circular curve concave to the east, radius 1950.08 feet, subtended by a chord deflecting 67°56' to the right from the extension of the last described course 194.09 feet;

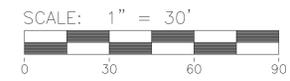
thence westerly deflecting 86°49' to the right 12.88 feet;  
 thence along the west line of Ann Arbor Railroad Company lands deflecting 96°24' to the left 298.57 feet;

thence along the north line of Huron street, deflecting 96°34' to the right 184.98 feet to the Place of Beginning, being Lots 1 and 13 and part of Lot 2, said Siple's Subdivision and other land in the Northwest 1/4 of Section 29, 12S, R6E, City of Ann Arbor, Michigan.

- SUBJECT TO:**
- Release of Right of Way for Allen's Creek Drain, as recorded in Liber 525, Page 595, and Liber 526, Page 1, Washtenaw County Records.
  - Right of Way for sewers, in favor of The City of Ann Arbor, as recorded in Liber 299, Page 130, Washtenaw County Records.
  - Right of Way Agreement with The City of Ann Arbor, as recorded in Liber 1408, Pages 883 and 887, Washtenaw County Records.

**NOTES**

1. THE PROPERTY DESCRIBED HEREIN LIES WITHIN FLOODPLAIN ZONE "AE" - AREA SUBJECT TO INUNDATION BY THE 1-PERCENT-ANNUAL-CHANCE FLOOD EVENT ACCORDING TO F.E.M.A. FLOOD INSURANCE RATE MAP 26161C0242E, EFFECTIVE APRIL 3, 2012. THE LIMITS OF THE FLOODPLAIN EXTEND TO THE 801 CONTOUR (NAVD88).



**LEGEND**

- 838 ——— EXIST. CONTOUR
- x 836.2 EXIST. SPOT ELEVATION
- o- U.P. EXIST. UTILITY POLE
- GUY WIRE
- OH ——— EXIST. OVERHEAD UTILITY LINE
- \* EXIST. LIGHT POLE
- g ——— EXIST. GAS LINE
- w ——— EXIST. WATER MAIN
- EXIST. HYDRANT
- r ——— EXIST. STORM SEWER
- EXIST. CATCH BASIN OR INLET
- - - - - EXIST. SANITARY SEWER
- SIGN
- GAS METER POST
- SINGLE TREE
- F FOUND IRON PIPE
- FIR FOUND IRON ROD
- ▲ CONTROL PT.

**TREE LIST**

TAG#	DBH	COMMON NAME	GENUS/SPECIES	STEMS	SCORE	LM	INW	RM
1583	22"	Honey Locust	Gleditsia triacanthos		Z1	X		
1584	13"	Red Elm	Ulmus rubra					
1585	16"	Tree-of-heaven	Ailanthus altissima				X	
1586	11"	Box Elder	Acer negundo	twin				
1587	12"	Black Walnut	Juglans nigra	twin				
1588	12"	Box Elder	Acer negundo					
1592	12"	Tree-of-heaven	Ailanthus altissima				X	
1593	10"	Black Walnut	Juglans nigra					
1594	11"	Box Elder	Acer negundo					
1597	8"	Siberian Elm	Ulmus pumila				X	
1598	8"	Box Elder	Acer negundo					
1599	10"	Tree-of-heaven	Ailanthus altissima				X	
1600	10"	Siberian Elm	Ulmus pumila	twin			X	
1601	10"	Box Elder	Acer negundo					
1602	9"	Box Elder	Acer negundo					
1603	10"	Siberian Elm	Ulmus pumila				X	
1604	12"	Box Elder	Acer negundo					
1605	10"	Box Elder	Acer negundo					
1606	10"	Box Elder	Acer negundo					
1607	10"	Box Elder	Acer negundo					
1608	10"	Tree-of-heaven	Ailanthus altissima				X	
1609	10"	Tree-of-heaven	Ailanthus altissima				X	
1610	16"	Tree-of-heaven	Ailanthus altissima				X	
1611	14"	Cottonwood	Populus deltoides					
1612	18"	Cottonwood	Populus deltoides					
1613	8"	American Elm	Ulmus americana					
1614	22"	Black Walnut	Juglans nigra		15	X		
1615	13"	Box Elder	Acer negundo					
1616	13"	Box Elder	Acer negundo					
1617	20"	Black Walnut	Juglans nigra		19	X		
1618	16"	Black Walnut	Juglans nigra					
1619	15"	Black Locust	Robinia pseudoacacia				X	
1620	24"	Box Elder	Acer negundo	Dead				
1621	13"	Tree-of-heaven	Ailanthus altissima				X	
1622	22"	Norway Maple	Acer platanoides				X	
1623	17"	Tree-of-heaven	Ailanthus altissima	twin			X	X
1624	17"	Black Walnut	Juglans nigra					
1625	12"	Black Walnut	Juglans nigra					
1627	9"	Box Elder	Acer negundo					
1628	24"	Black Walnut	Juglans nigra		20	X		
1629	13"	Box Elder	Acer negundo					
1630	13"	N. White-cedar	Thuja occidentalis					
1631	8"	N. White-cedar	Thuja occidentalis	twin				
1632	6"	Catalpa	Catalpa speciosa	twin			X	
1633	2"	Cherry	Prunus serotina					
1634	2"	Cherry	Prunus serotina					
1635	2"	Cherry	Prunus serotina					
1636	3"	Bradford Pear	Pyrus calleryana					
1637	3"	Spruce	Picea abies					
1638	3"	Spruce	Picea abies					
1639	3"	Bradford Pear	Pyrus calleryana					
1640	3"	Bradford Pear	Pyrus calleryana					

MIDWESTERN CONSULTING

3815 Plaza Drive Ann Arbor, Michigan 48108  
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CLIENT

Tom VanFossen  
 6185 E. Traverse Hwy, Ste B  
 Traverse City, MI 49664

WEST HURON PROPERTIES

TOPOGRAPHIC SURVEY OF A PARCEL OF LAND LOCATED IN  
 T5N, R6E, CITY OF ANN ARBOR, ANN ARBOR TOWNSHIP,  
 WASHTENAW COUNTY, MICHIGAN

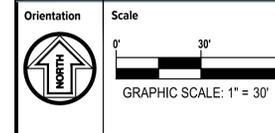
JOB No. 14064

REVISIONS: 10-03-14 CADD: PK 1  
 7-18-19 ENG. SWB  
 12-01-19 P.L. SWB  
 1-06-2010 TECH. SWB  
 1-06-2010 TECH. SWB

DATE: 05-21-14  
 SHEET: 1 OF 1

1





Project: WEST HURON PROPERTIES, LLC PAVEMENT IMPROVEMENTS

Project Location: 416, 410 & 404 W. HURON ST. ANN ARBOR, MI 48103

Sheet Name: EXISTING UTILITIES PLAN

Engineer's Seal: HUGO J. CERON, ENGINEER

Revisions table with columns: REV, ISSUED FOR, DATE, BY

Date: 08-26-2019

SME Project No.: 081266.00

Project Manager: JAS

Designer: HJC

CADD: HJC

Checked By: BH

Sheet No.: C-401

DRAWING TITLE: SCALE: SHEET NO. 31 OF 31

BENCHMARK DATA

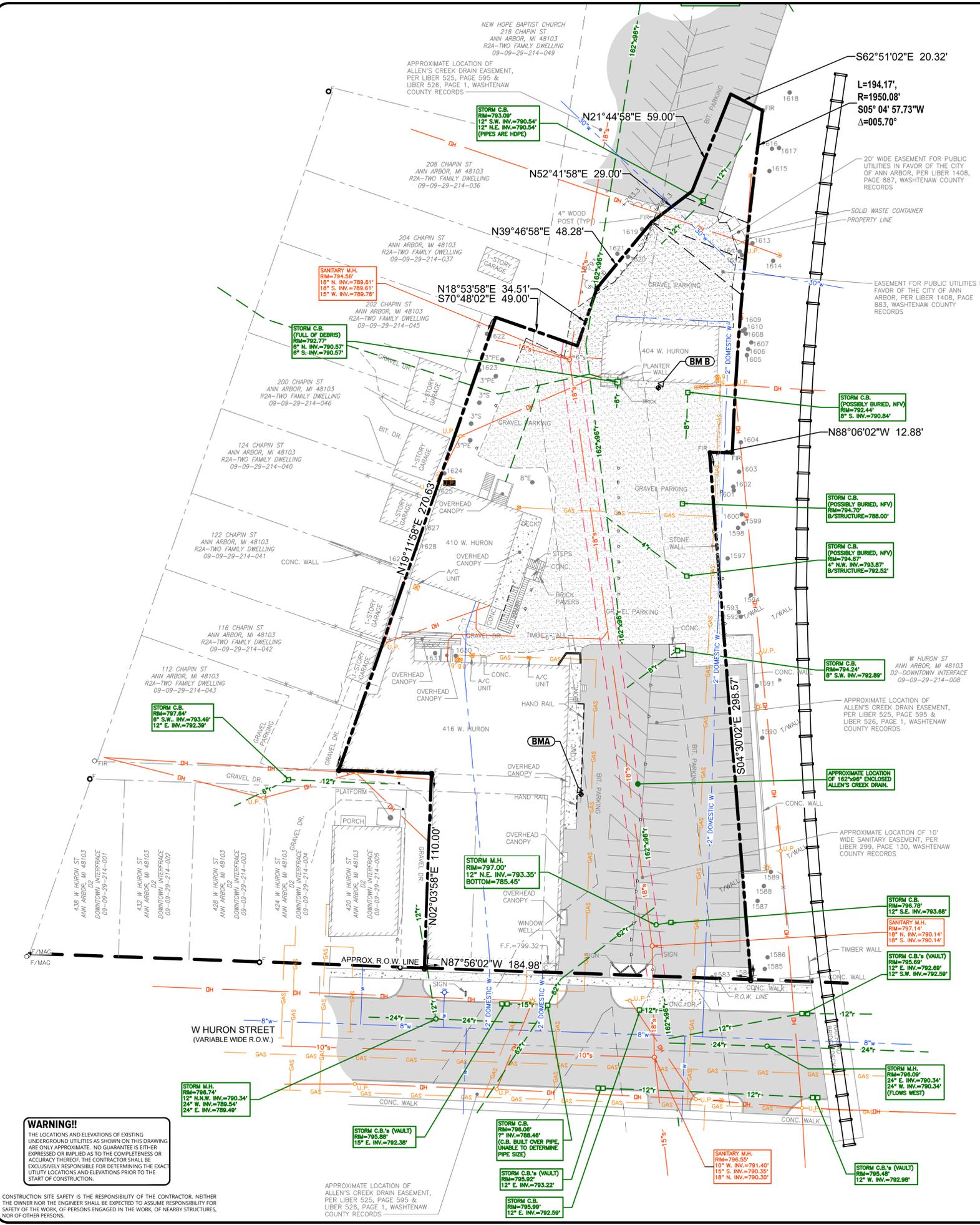
BM A: SOUTHWEST CORNER OF CONCRETE PATIO/LOADING DOCK IN FRONT OF BUILDING @ #416 W. HURON ST. ... ELEV. 801.25 (NAVD 88 DATUM)

NOTE: THE PROJECT WAS TIED INTO AGRS NO. 0104 (NGS PID 101047) AT THE SOUTHEAST CORNER OF W. HURON ST. AND CHAPIN ST

EXISTING LEGEND

- CONTOUR: 881'
INDEX CONTOUR: 880'
WATER MAIN: 8"
STORM SEWER: 18"
SANITARY SEWER: 18"
CABLETV: 6"
OVERHEAD UTILITY: 12"
FIBER OPTIC: 12"
GAS: 8"
ELECTRICAL: 12"
FENCE: 4"
FLOODWAY LIMIT: 12"
FLOODPLAIN LIMIT: 12"
HYDRANT: 4"
UTILITY POLE: 12"
GUY WIRE: 12"
LIGHT POLE: 12"
MANHOLE: 12"
CATCH BASIN: 12"
SIGN: 12"
GAS METER: 12"
POST: 12"
TREE: 12"
FOUND IRON PIPE: 12"
FOUND IRON ROD: 12"
CONCRETE: 12"
ASPHALT PAVEMENT: 12"
GRAVEL: 12"

TELEPHONE: AT&T, 550 S MAPLE ROAD, ANN ARBOR, MI 48103, PH: 734.996.5322
ELECTRICAL: DETROIT EDISON, 8001 HAGGERTY RD., BELLEVILLE, MI 48111, PH: 734.397.4321
GAS: DTE GAS COMPANY, ONE ENERGY PLAZA WCB-1710, DETROIT, MI 48226, PH: 313.235-1001
WATER & SEWER: CITY OF ANN ARBOR, 301 E. HURON STREET, ANN ARBOR, MI 48107, PH: 734.794.6410

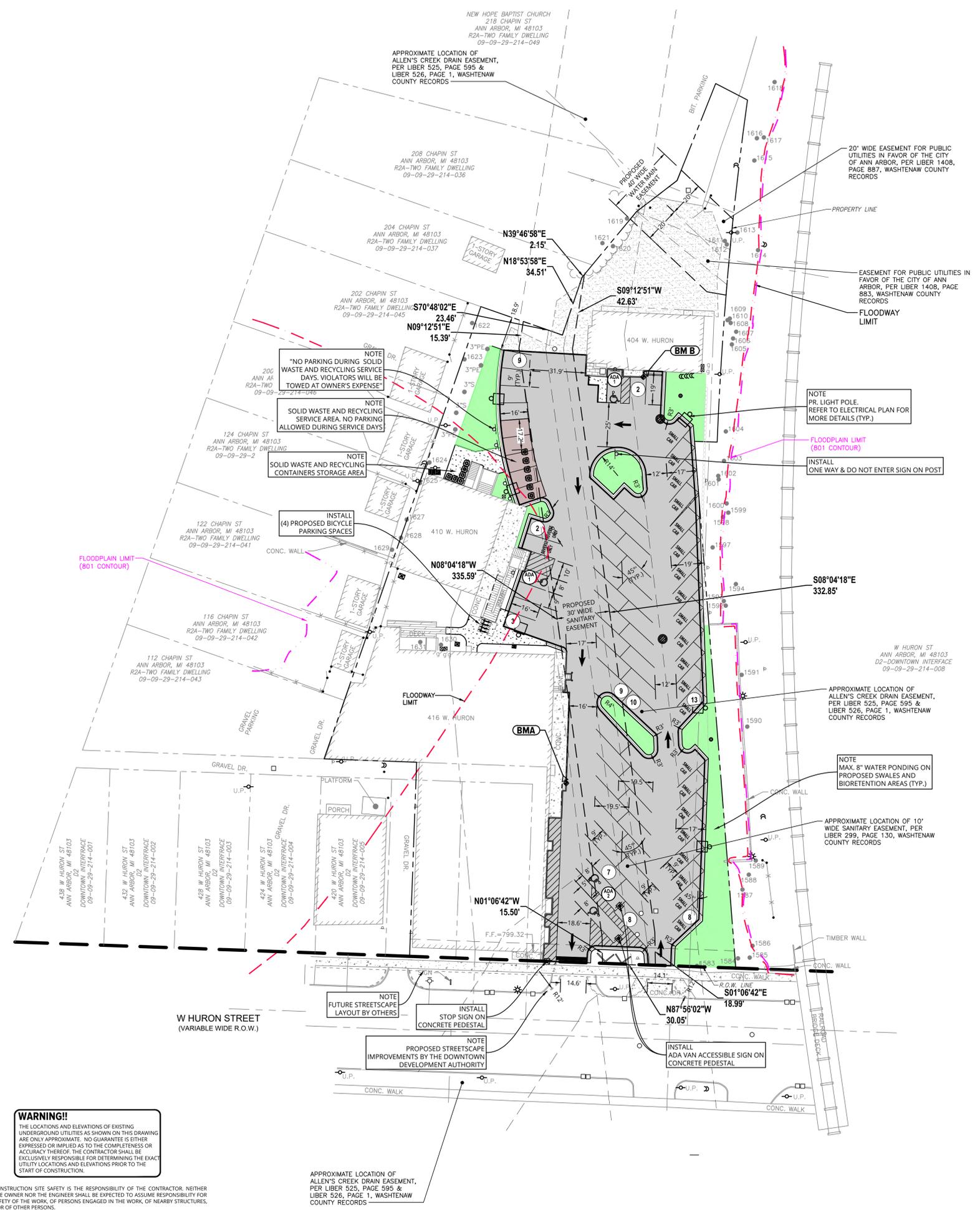


WARNING!! THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT UTILITY LOCATIONS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.

APPROXIMATE LOCATION OF ALLEN'S CREEK DRAIN EASEMENT, PER LIBER 525, PAGE 595 & LIBER 526, PAGE 1, WASHTENAW COUNTY RECORDS

ISSUED FOR SITE PLAN APPROVAL

FILE LOCATION: I:\sme-inc\p\WP\081266.00\CADD\DWG\SSPA\WP081266.00-Ex-Utilities.dwg



**SOLID WASTE NOTE**  
 NO DUMPSTER ENCLOSURE IS PROPOSED FOR THIS PROJECT DUE TO PROPERTY IS WITHIN THE FLOODWAY.  
 (4) 96 GALLON SOLID WASTE CONTAINERS AND (2) 96 GALLON RECYCLING CONTAINERS WILL BE PICKED UP 3 TIMES A WEEK IN LIEU OF A 6 CYD CONTAINER ONCE A WEEK.  
 OWNER IS RESPONSIBLE FOR MOVING CONTAINERS ON SERVICE DAYS. TRASH AND RECYCLING VOLUMES WILL NOT CHANGE DUE TO THESE PARKING LOT IMPROVEMENTS

**TRANSPORTATION STATEMENT**  
 PROPOSED SITE IMPROVEMENTS DO NOT INCREASE THE TRAFFIC FLOW. THE TOTAL PARKING COUNT HAS BEEN REDUCED FROM 96 TO 82 WHILE MAINTAINING SIMILAR PAVED PARKING LAYOUT.

**NOTES**  
 1. PER CHAPTER 49, SECTION 4:58 OF THE CITY CODE, ALL SIDEWALKS SHALL BE KEPT AND MAINTAINED IN GOOD REPAIR BY THE OWNER OF THE LAND ADJACENT TO AND ABUTTING THE SAME. PRIOR TO THE ISSUANCE OF THE FINAL CERTIFICATE OF OCCUPANCY FOR THIS SITE, ALL EXISTING SIDEWALKS IN NEED OF REPAIR MUST BE REPAIRED IN ACCORDANCE WITH CITY STANDARDS.  
 2. THERE ARE NO EXISTING NOR PROPOSED FIREWALLS WITHIN SITE.

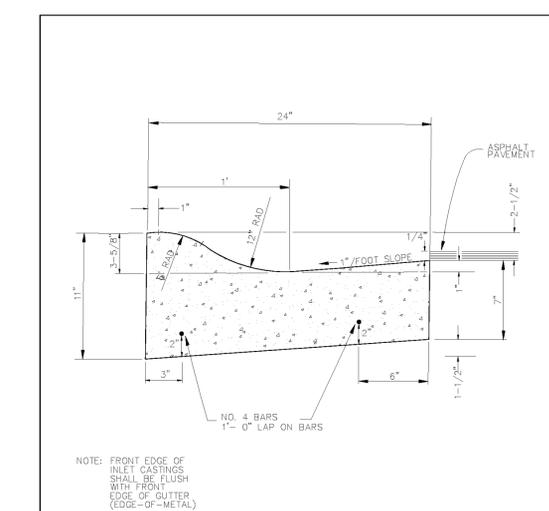
**SITE DATA**  
 SITE ZONING: D2 - DOWNTOWN INTERFACE  
 ZONING NORTH: D2 - DOWNTOWN INTERFACE  
 ZONING SOUTH: PUD - PLANNED UNIT DEVELOPMENT  
 ZONING EAST: D2 - DOWNTOWN INTERFACE  
 ZONING WEST: R2A - TWO-FAMILY DWELLING

MINIMUM LOT AREA: NONE  
 MINIMUM LOT WIDTH: NONE  
 USE/AREA: 404 W HURON ST - OFFICE/WAREHOUSE/INDUSTRIAL (2,066 SF)  
 410 W HURON ST - OFFICE, THEATER AND STORAGE (BASEMENT 2,133 SF)  
 (1ST FLOOR 2,722 SF)  
 (2ND FLOOR 1,432 SF)  
 416 W HURON ST - OFFICE/WAREHOUSE/INDUSTRIAL (BASEMENT 603 SF)  
 (1ST FLOOR 15,376 SF)  
 (2ND FLOOR 7,825 SF)

PARKING LOT: A MAXIMUM OF 15 PARKING SPACES ARE ALLOWED IN A PARKING ROW WITHOUT A LANDSCAPE ISLAND BREAK

PARKING:

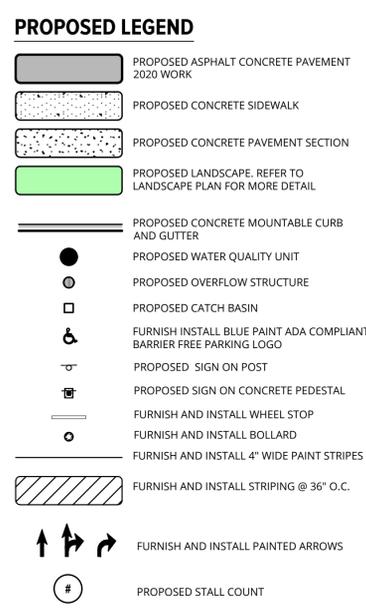
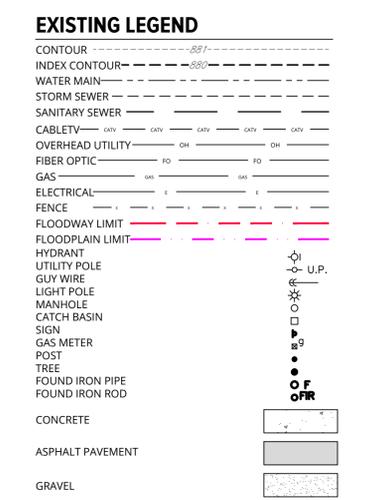
EXISTING STANDARD STALLS	92
ADA STALLS	4
TOTAL	96
PROPOSED REQUIRED STALLS	N/A (D2 ZONING)
STANDARD STALLS	50
SMALL CAR STALLS	21
ADA REQUIRED	4 (1 VAN)
ADA PROVIDED	4 (1 VAN)
TOTAL	75



REV. NO.	DATE	BY	DATE

REVISIONS

DR. BY	DP	CHK. BY	ESS	DRAWING NO.
SCALE	NONE	DATE	11-6-92	SD-R-2
INCH				SHEET NO. OF



**SME**  
 www.sme-usa.com

Orientation: NORTH

Scale: GRAPHIC SCALE: 1" = 30'

**Project**  
**WEST HURON PROPERTIES, LLC**  
**PAVEMENT IMPROVEMENTS**

**Project Location**  
**416, 410 & 404 W. HURON ST.**  
**ANN ARBOR, MI 48103**

**Sheet Name**  
**SITE LAYOUT PLAN**

**Engineer's Seal**

**Revisions**

REV	ISSUED FOR	DATE	BY
01	SITE PLAN SUBMITTAL	09/26/2019	MMA
02	SITE PLAN SUBMITTAL	05/19/2020	JAS
03	SITE PLAN PER CITY COMMENTS	07/22/2020	JAS
04	SITE PLAN WCVRC SUBMITTAL	10/08/2020	HJC
05	SITE PLAN PER CITY COMMENTS	10/26/2020	HJC
06	SITE PLAN PER CITY COMMENTS	11/11/2020	HJC

Date	08-26-2019
SME Project No.	081266.00
Project Manager:	JAS
Designer:	HJC
CADD:	HJC
Checked By:	BH
Sheet No.	C-500

**WARNING!!**  
 THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT UTILITY LOCATIONS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.

APPROXIMATE LOCATION OF ALLEN'S CREEK DRAIN EASEMENT, PER LIBER 525, PAGE 595 & LIBER 526, PAGE 1, WASHTENAW COUNTY RECORDS

**ISSUED FOR SITE PLAN APPROVAL**

CONSTRUCTION SITE SAFETY IS THE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME RESPONSIBILITY FOR SAFETY OF THE WORK, OR PERSONS ENGAGED IN THE WORK, OF NEARBY STRUCTURES, NOR OF OTHER PERSONS.

FILE LOCATION: I:\sme-inc\p\WP\081266.00\CADD\DWG\SDPA\REV081266.00\SiteLayout.dwg  
 Nov 11, 2020 - 12:30pm - ceron  
 PLOT DATE: 11/11/2020



Orientation Scale   
GRAPHIC SCALE: 1" = 30'

Project  
**WEST HURON PROPERTIES, LLC  
PAVEMENT IMPROVEMENTS**



Project Location  
**416, 410 & 404 W. HURON ST.  
ANN ARBOR, MI 48103**

Sheet Name  
**VEHICLE TURNING SIMULATIONS**

Engineer's Seal

Revisions

REV	ISSUED FOR	DATE	BY
01	SITE PLAN SUBMITTAL	09/26/2019	MMA
02	SITE PLAN PER CITY COMMENTS	05/19/2020	JAS
03	SITE PLAN WCVRC SUBMITTAL	07/22/2020	JAS
04	SITE PLAN PER CITY COMMENTS	10/08/2020	HJC
05	SITE PLAN PER CITY COMMENTS	10/26/2020	HJC
06	SITE PLAN PER CITY COMMENTS	11/11/2020	HJC

Date  
**08-26-2019**

SME Project No.  
**081266.00**

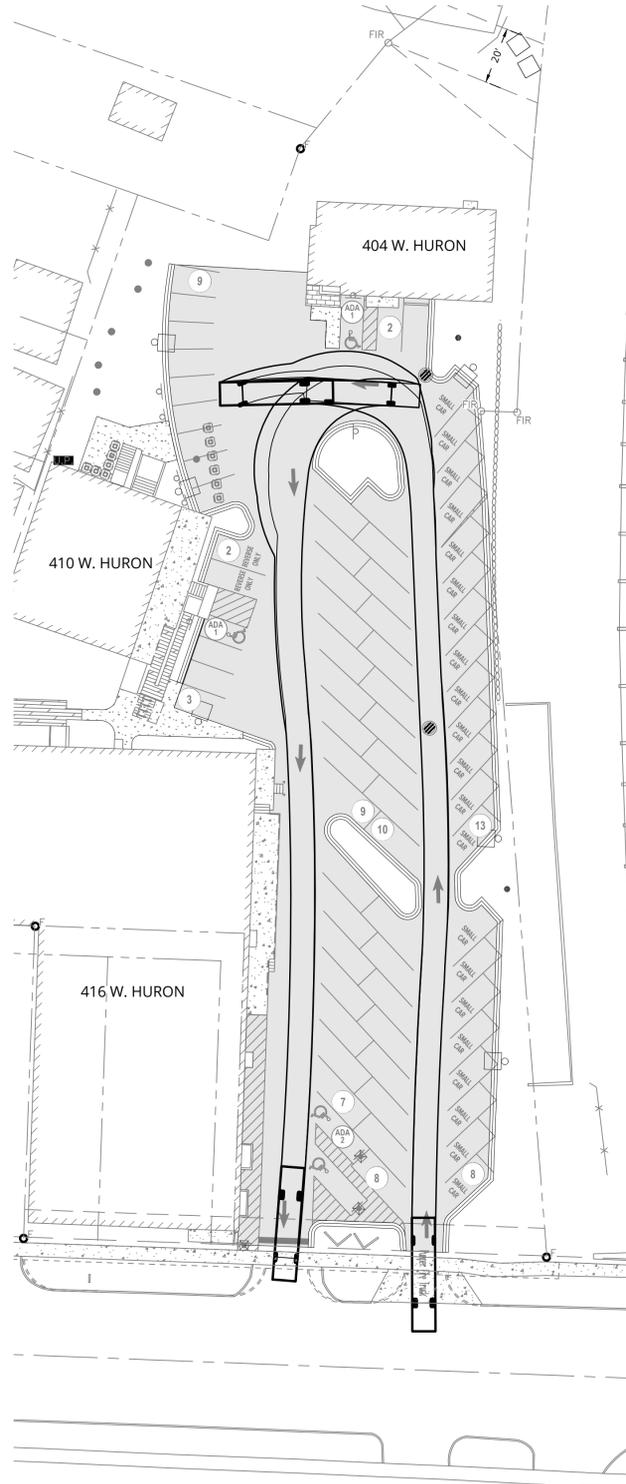
Project Manager:  
**JAS**

Designer:  
**HJC**

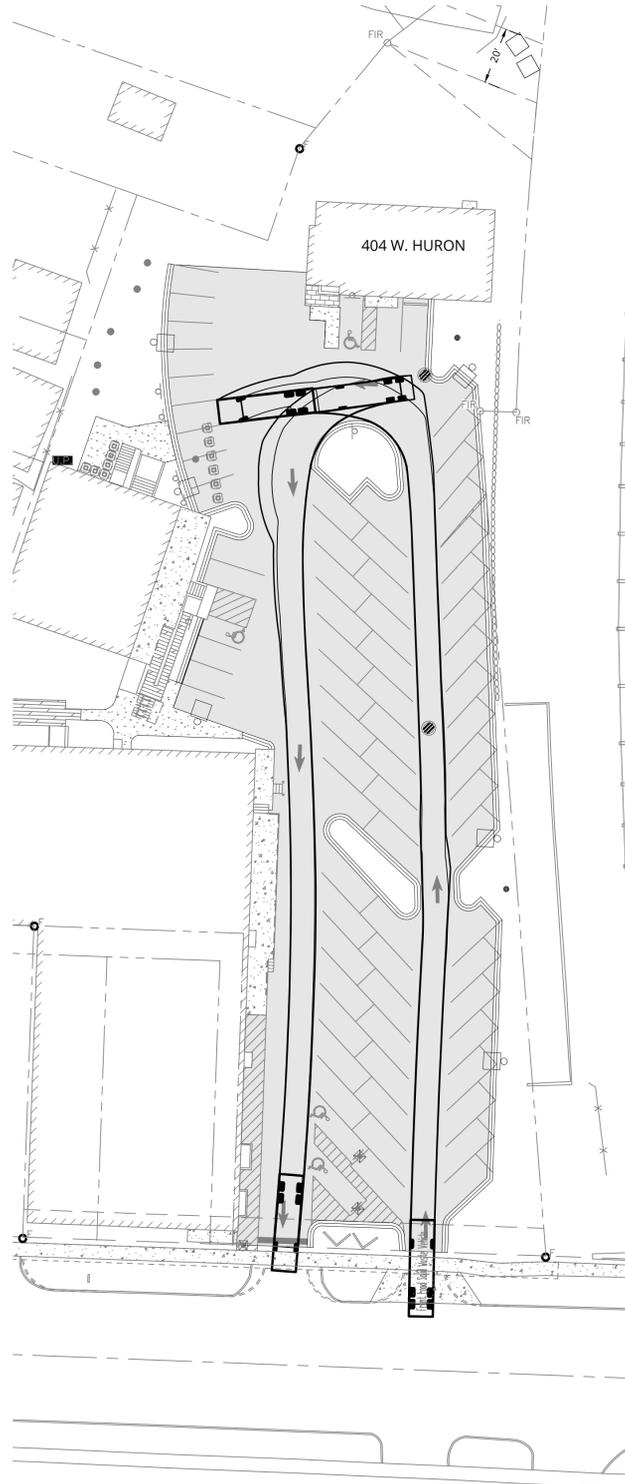
CADD:  
**HJC**

Checked By:  
**BH**

Sheet No.  
**C-501**



**FIRE TRUCK VEHICLE  
TURNING SIMULATION**



**FRONT LOADER WASTE TRUCK  
VEHICLE TURNING SIMULATION**



**Pumper Fire Truck**  
Overall Length 40.000ft  
Overall Width 8.167ft  
Overall Body Height 7.745ft  
Min Body Ground Clearance 0.656ft  
Track Width 8.167ft  
Lock-to-lock time 5.00s  
Max Wheel Angle 45.00°

FRONT LOAD  
Custom  
[ft]  
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CLEARANCE REQUIREMENTS FOR  
FRONT LOAD SOLID WASTE VEHICLE

REV. NO.	DATE	DRAWN BY	CHECKED BY
DR: OHM	CH: CJE		
SCALE: N.T.S.	DATE: 12/08/15	DRAWING NO.	PAGE 4

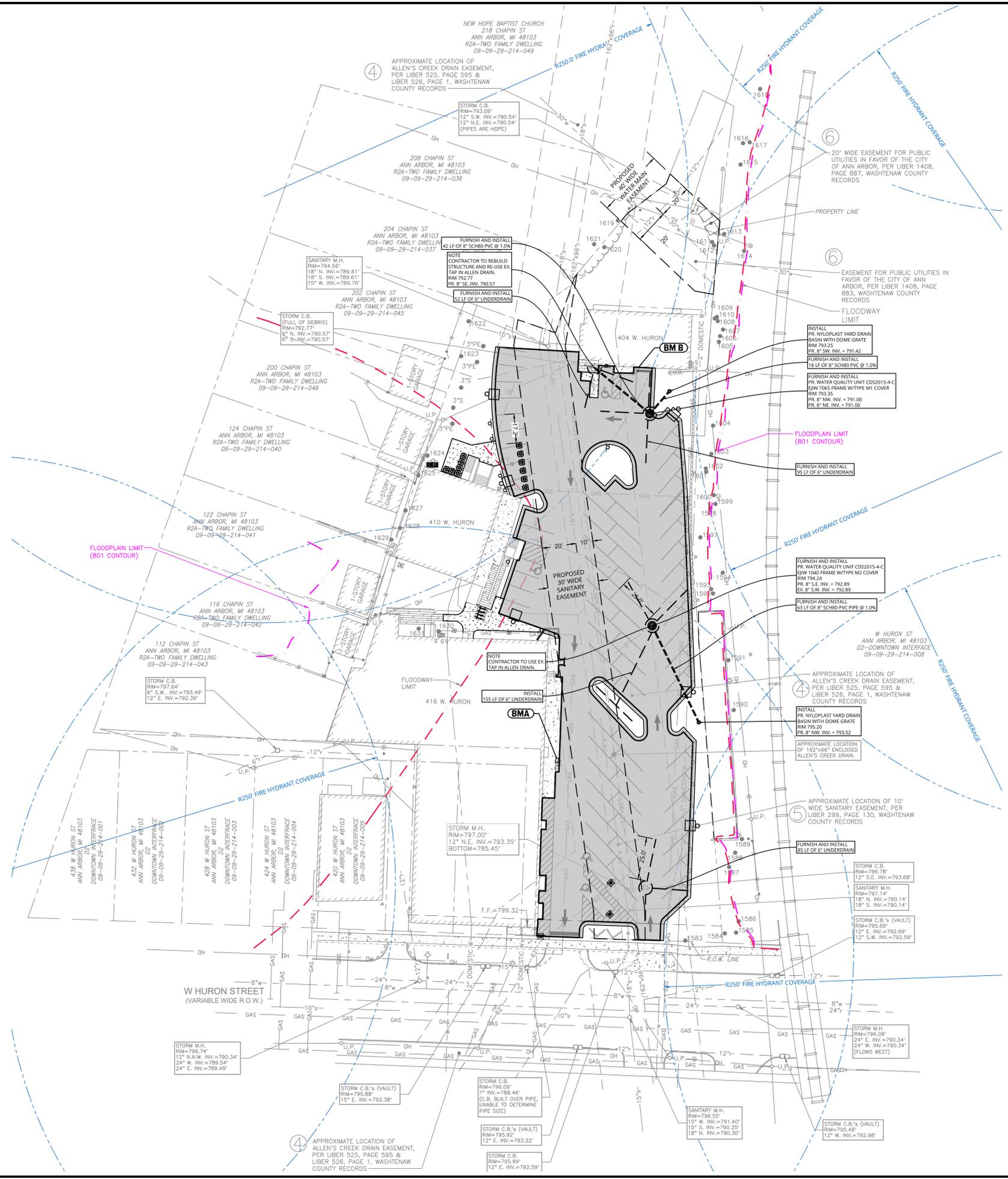
**SOLID WASTE  
STANDARD DETAILS**



**CITY OF ANN ARBOR  
PUBLIC SERVICES**  
901 EAST HURON STREET  
P.O. BOX 8847  
ANN ARBOR, MI 48107-8847  
734-761-6410  
www.a2gov.org

**ISSUED FOR SITE PLAN APPROVAL**





**EXISTING LEGEND**

- CONTOUR ----- 801' -----
- INDEX CONTOUR ----- 800' -----
- WATER MAIN -----
- STORM SEWER -----
- SANITARY SEWER -----
- CABLETV ----- CATV -----
- OVERHEAD UTILITY ----- OH -----
- FIBER OPTIC ----- FO -----
- GAS ----- GAS -----
- ELECTRICAL -----
- FENCE -----
- FLOODWAY LIMIT -----
- FLOODPLAIN LIMIT -----
- HYDRANT -----
- UTILITY POLE ----- U.P. -----
- LIGHT POLE -----
- MANHOLE -----
- CATCH BASIN -----
- SIGN -----
- GAS METER -----
- POST -----
- TREE -----
- FOUND IRON PIPE -----
- FOUND IRON ROD -----
- CONCRETE -----
- ASPHALT PAVEMENT -----
- GRAVEL -----

**BENCHMARK DATA**

**BM A**  
SOUTHWEST CORNER OF CONCRETE PATIO/LOADING DOCK IN FRONT OF BUILDING @ #416 W. HURON ST.; +/-140' NORTH OF THE CENTERLINE OF HURON ST.  
N 285567.70,  
E 13289505.26,  
ELEV. 801.25 (NAVD 88 DATUM)

**BM B**  
SOUTHWEST CORNER OF CONCRETE APPROACH TO BUILDING #404 W. HURON ST.; +/-33' WEST OF THE SOUTHWEST CORNER OF BUILDING; +/-103' NORTHEAST OF THE NORTHEAST CORNER OF BUILDING @ 410 W. HURON ST.  
N 285797.19,  
E 13289549.09,  
ELEV. 794.28 (NAVD 88 DATUM)

NOTE  
THE PROJECT WAS TIED INTO AAGRS NO. 0104 (NGS PID NE1047) AT THE SOUTHEAST CORNER OF W. HURON ST. AND CHAPIN ST

**UTILITY LEGEND**

- ===== FURNISH AND INSTALL STORM SEWER PIPE
- FURNISH AND INSTALL 6" UNDERDRAIN/EDGEDRAIN
- PROPOSED WATER QUALITY UNIT
- PROPOSED OVERFLOW STRUCTURE

**SANITARY SEWER MITIGATION**

PROPOSED SITE IMPROVEMENTS DO NOT INCLUDE ANY ADDITIONAL SANITARY FIXTURES. SANITARY SEWER FLOW WILL REMAIN THE SAME.

**NOTES**

- CITY GIS RECORDS INDICATE THAT THERE IS A SERVICE LEAD CONNECTED TO A FIRE HYDRANT LEAD. THIS EXISTING, NON-CONFORMING CONFIGURATION WILL BE ALLOWED TO REMAIN UNTIL CHANGES ARE MADE TO THE SERVICE LEADS OR BUILDINGS.
- INSPECTION IS REQUIRED FOR ALL STRUCTURE/RIM ADJUSTMENTS NECESSARY FOR PAVING. CONTACT THE CITY ENGINEERING TO SCHEDULE INSPECTION.



Orientation:

Scale:

GRAPHIC SCALE: 1" = 30'

**Project**

**WEST HURON PROPERTIES, LLC PAVEMENT IMPROVEMENTS**

**Project Location**

**416, 410 & 404 W. HURON ST. ANN ARBOR, MI 48103**

**Sheet Name**

**UTILITY PLAN**

**Engineer's Seal**

**Revisions**

REV	ISSUED FOR	DATE	BY
01	SITE PLAN SUBMITTAL	09/26/2019	MMA
02	SITE PLAN SUBMITTAL	05/19/2020	JAS
03	SITE PLAN PER CITY COMMENTS	07/22/2020	JAS
04	SITE PLAN WCWR SUBMITTAL	10/08/2020	HJC
05	SITE PLAN PER CITY COMMENTS	10/26/2020	HJC
06	SITE PLAN PER CITY COMMENTS	11/11/2020	HJC

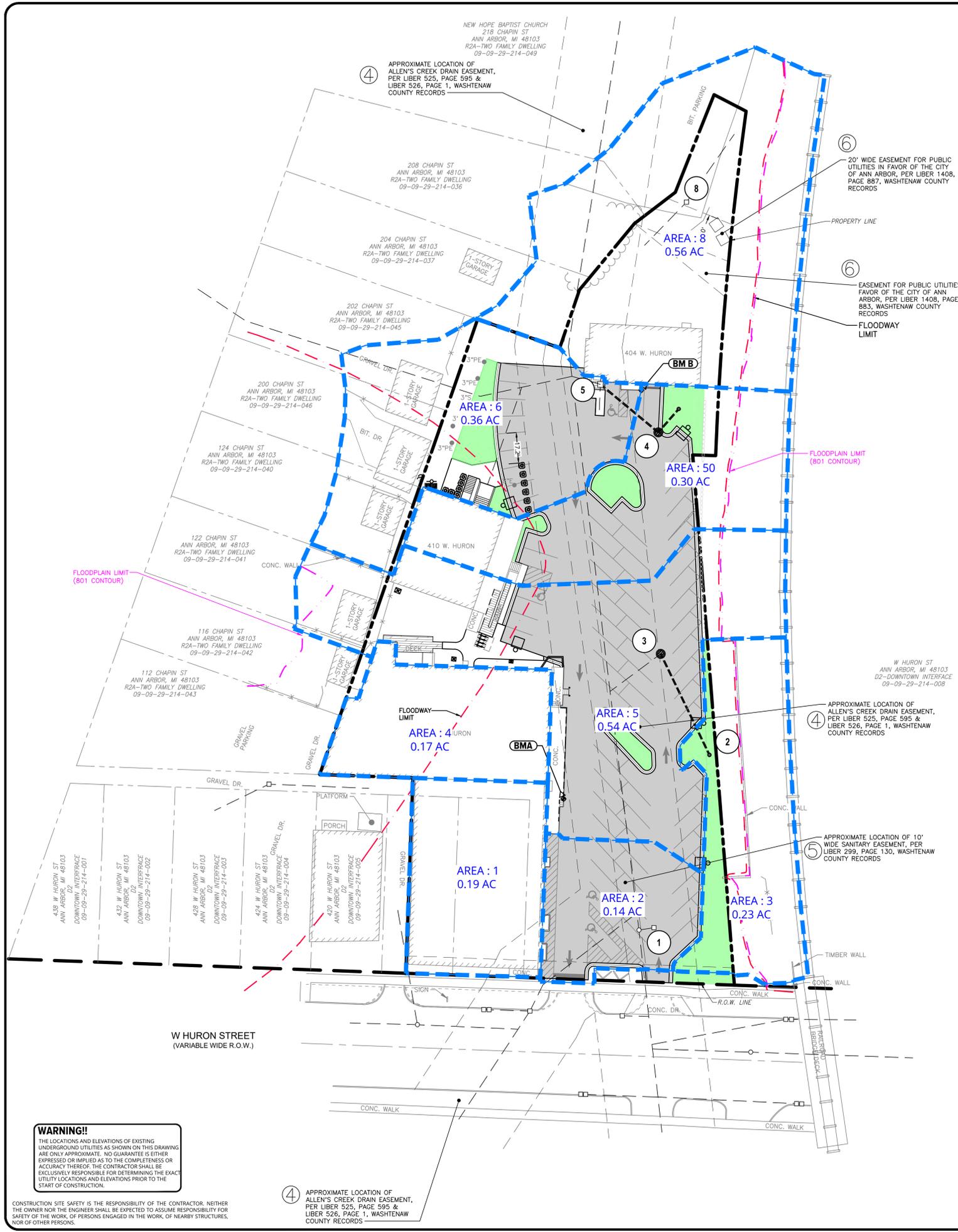
Date	08-26-2019
SME Project No.	081266.00
Project Manager:	JAS
Designer:	HJC
CADD:	HJC
Checked By:	BH
Sheet No.	C-700

**WARNING!!**  
THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT UTILITY LOCATIONS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.

CONSTRUCTION SITE SAFETY IS THE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME RESPONSIBILITY FOR SAFETY OF THE WORK, OR PERSONS ENGAGED IN THE WORK, OF NEARBY STRUCTURES, NOR OF OTHER PERSONS.

**ISSUED FOR SITE PLAN APPROVAL**

FILE LOCATION: I:\sme-inc\p\WP081266.00\CADD\DWGSS\PA1\rev19081266.00\Utility.dwg



**CDS ESTIMATED NET ANNUAL SOLIDS LOAD REDUCTION BASED ON THE RATIONAL RAINFALL METHOD BASED ON AN AVERAGE PARTICLE SIZE OF 110 MICRONS WEST HURON PROPERTIES ANN ARBOR, MI FOR SYSTEM: 1**

Rainfall Intensity (in/hr)	Rainfall (in)	Percent Removal	Volume (cu ft)	Total Solids (lb)	Removal (lb)	Incremental Removal (lb)
0.02	12.93%	12.93%	0.00	100.00	12.93	12.93
0.04	11.32%	23.85%	0.03	100.00	11.32	11.32
0.06	10.29%	33.84%	0.06	100.00	10.29	10.29
0.08	4.99%	41.43%	0.08	99.18	4.14	4.14
0.10	7.44%	48.89%	0.08	88.63	7.34	7.34
0.12	5.31%	54.11%	0.10	86.08	9.21	9.21
0.14	4.19%	58.36%	0.11	87.53	4.08	4.08
0.16	4.82%	63.17%	0.13	86.86	4.87	4.87
0.18	3.40%	66.57%	0.15	86.43	3.28	3.28
0.20	2.89%	68.44%	0.16	85.88	2.77	2.77
0.25	6.22%	75.68%	0.20	84.51	5.88	5.88
0.30	4.12%	79.82%	0.24	83.13	3.84	3.84
0.35	3.37%	83.11%	0.28	81.76	3.09	3.09
0.40	2.90%	86.07%	0.32	80.44	2.6	2.6
0.45	1.65%	88.73%	0.36	80.15	1.65	1.65
0.50	1.88%	90.40%	0.41	87.9	1.5	1.5
0.75	5.11%	95.21%	0.61	80.8	4.1	4.1
1.00	2.16%	97.66%	0.81	80.11	1.5	1.5
1.50	1.50%	98.19%	1.22	44.7	0.7	0.7
2.00	0.92%	98.68%	1.62	33.5	0.2	0.2
2.10	0.91%	100.00%	1.70	31.9	0.0	0.0
				84.47		

Removal Efficiency Adjustment = 6.5%  
Predicted % Annual Rainfall Treated = 92.1%  
Predicted Net Annual Load Removal Efficiency = 89.9%

**CDS ESTIMATED NET ANNUAL SOLIDS LOAD REDUCTION BASED ON THE RATIONAL RAINFALL METHOD BASED ON AN AVERAGE PARTICLE SIZE OF 110 MICRONS WEST HURON PROPERTIES ANN ARBOR, MI FOR SYSTEM: 2**

Rainfall Intensity (in/hr)	Rainfall (in)	Percent Removal	Volume (cu ft)	Total Solids (lb)	Removal (lb)	Incremental Removal (lb)
0.02	12.93%	12.93%	0.00	100.00	12.93	12.93
0.04	11.32%	23.85%	0.03	100.00	11.32	11.32
0.06	10.29%	33.84%	0.06	100.00	10.29	10.29
0.08	4.99%	41.43%	0.08	100.00	4.14	4.14
0.10	7.44%	48.89%	0.04	100.00	7.44	7.44
0.12	5.31%	54.11%	0.04	96.95	5.31	5.31
0.14	4.19%	58.36%	0.05	96.71	4.17	4.17
0.16	4.82%	63.17%	0.06	96.47	4.79	4.79
0.18	3.40%	66.57%	0.08	96.24	3.37	3.37
0.20	2.89%	68.44%	0.09	96.00	2.89	2.89
0.25	6.22%	75.68%	0.09	96.40	6.12	6.12
0.30	4.12%	79.82%	0.11	97.81	4.03	4.03
0.35	3.37%	83.11%	0.12	97.21	3.37	3.37
0.40	2.90%	86.07%	0.14	96.8	2.8	2.8
0.45	1.65%	88.73%	0.16	96.0	1.65	1.65
0.50	1.88%	90.40%	0.18	95.4	1.6	1.6
0.75	5.11%	95.21%	0.26	95.4	4.7	4.7
1.00	2.16%	97.66%	0.36	89.5	2.0	2.0
1.50	1.50%	98.19%	0.53	83.5	1.3	1.3
2.00	0.92%	98.68%	0.74	80.4	0.4	0.4
2.10	0.91%	100.00%	0.74	73.7	0.0	0.0
				88.28		

Removal Efficiency Adjustment = 6.5%  
Predicted % Annual Rainfall Treated = 93.3%  
Predicted Net Annual Load Removal Efficiency = 91.8%

**Project:** West Huron Properties  
**Location:** Ann Arbor, MI  
**Design For:** SME Plymouth

**References:** United States Department of Agriculture Natural Resources Conservation Service TR-55 Manual

Structure Name	A (acres)	P	Runoff Coefficient	Percent Imp.	L (in)	T (hr)
1	0.96	0.00141	0.90	100.00	15.0	0.250
2	0.38	0.00061	0.90	100.00	15.0	0.250
3	0.45	0.00061	0.90	100.00	15.0	0.250

**Where:** WQV = water quality volume (cubic inches)  
P = design precipitation (inches)  
R = volumetric runoff coefficient = 0.05 + 0.005(P)  
I = percent impervious cover

Structure Name	Percent Imp.	R	P	WQV (cu in)	WQV (cfs)
1	100.00	0.950	1.0	0.950	3,103.65
2	100.00	0.950	1.0	0.950	1,344.82
3	100.00	0.950	1.0	0.950	1,344.82

**Where:** WQV = water quality volume (cfs)  
Q<sub>p</sub> = unit peak discharge (cfs/acre)  
A = drainage area (ac)  
Q = runoff depth (waterdepth inches)

Structure Name	Q <sub>p</sub> (cfs/acre)	A (ac)	Q (cfs)	WQV (cfs)
1	731	0.96	0.900	1,344.82
2	731	0.38	0.300	412.61
3	731	0.45	0.330	450.07

**Structure Name** | **L (in)** | **T (hr)**

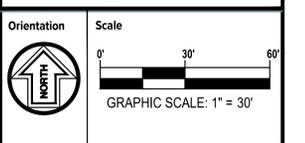
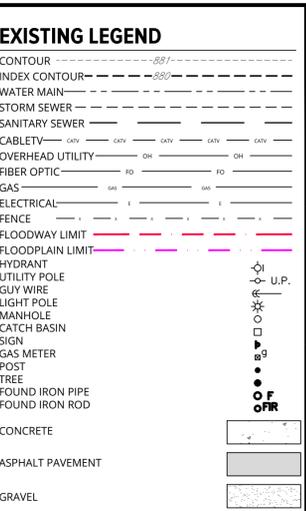
1	15.0	0.250
2	15.0	0.250
3	15.0	0.250

**Structure Name** | **L (in)** | **T (hr)** | **Q<sub>p</sub> (cfs/acre)** | **Q (cfs)**

1	15.0	0.250	731	1,344.82
2	15.0	0.250	731	412.61
3	15.0	0.250	731	450.07

**Structure Name** | **Q<sub>p</sub> (cfs/acre)** | **A (ac)** | **Q (cfs)** | **WQV (cfs)**

1	731	0.96	0.900	1,344.82
2	731	0.38	0.300	412.61
3	731	0.45	0.330	450.07



**Project**  
**WEST HURON PROPERTIES, LLC PAVEMENT IMPROVEMENTS**

**Project Location**  
**416, 410 & 404 W. HURON ST. ANN ARBOR, MI 48103**

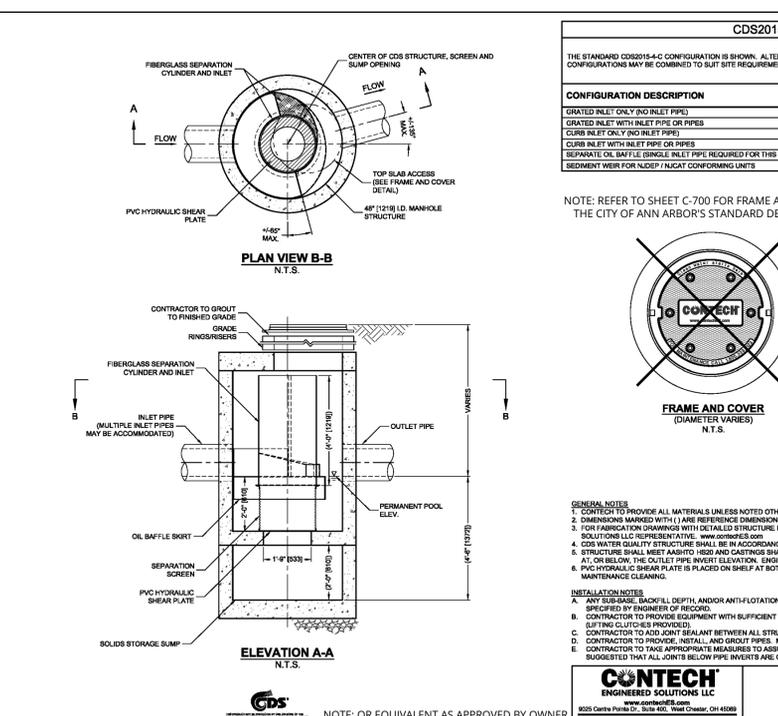
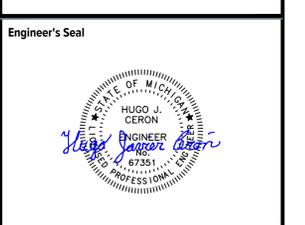
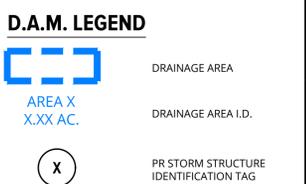
**Sheet Name**  
**DRAINAGE AREA MAP**

**NOTE**  
THE PROJECT WAS TIED INTO AAGRS NO. 0104 (NGS PID NE10419) AT THE SOUTHEAST CORNER OF W. HURON ST. AND CHAPIN ST.

**BENCHMARK DATA**

BM A  
SOUTHWEST CORNER OF CONCRETE PATIO/LOADING DOCK IN FRONT OF BUILDING @ #416 W. HURON ST.; +/-140' NORTH OF THE CENTERLINE OF HURON ST.  
N 285567.70  
E 1329505.26  
ELEV. 801.25 (NAVD88 DATUM)

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SOUTHWEST CORNER OF CONCRETE APPROACH TO BUILDING #404 W. HURON ST.; +/-33' WEST OF THE SOUTHWEST CORNER OF BUILDING; +/-103' NORTHEAST OF THE NORTHEAST CORNER OF BUILDING @ 410 W. HURON ST.  
N 285797.19  
E 1329549.09  
ELEV. 794.28 (NAVD88 DATUM)



**SITE SPECIFIC DATA REQUIREMENTS**

STRUCTURE ID	WATER QUALITY FLOW RATE (CFS OR L/S)	PEAK FLOW RATE (CFS OR L/S)	RETURN PERIOD OF PEAK FLOW (YRS)	SCREEN APERTURE (GRID OR F00)	PIPE DATA	INLET PIPE 1	INLET PIPE 2	OUTLET PIPE	RM ELEVATION	ANTI-FLOTATION BALLAST	WIDTH	HEIGHT
	*	*	*	*		*	*	*	*	*	*	*

**GENERAL NOTES**

- CONTRACTOR TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
- DIMENSIONS MARKED WITH \* ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
- CONTRACTOR TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE. CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. WWW.CONTECHES.COM
- CDS WATER QUALITY DRAWINGS SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
- STRUCTURE SHALL MEET ASHRAE 90.1 AND IBC AND SHALL MEET IBC (ASAP TO M 300) LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT OR BELOW THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION.
- PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.

**INSTALLATION NOTES**

- ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
- CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE (LIFTING CLUTCH PROVIDED).
- CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLY STRUCTURE.
- CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH EXISTING STRUCTURE.
- CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW INVERT ARE GROUTED.

**CDS2015-4-C INLINE CDS STANDARD DETAIL**

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**ISSUED FOR SITE PLAN APPROVAL**

FILE LOCATION: I:\sme\in\p\WP082666\040\DWG\SS\CPA\REV202666.DWG  
Nov 11, 2020 - 12:42pm - ceron



Owner/Client:

West Huron Properties, LLC

416 W Huron St., Ste. 23  
Ann Arbor, MI 48103

Project:

Parking Lot Site Plan

416-416 W. Huron St.  
Ann Arbor, MI

Revisions:

Date: 4/13/20  
Drawn: DJE  
Project No.: 201918  
Scale: AS SHOWN

Approved:  
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Drawing Title:

Photometric Plan

Sheet No.:

A-1

HEAVY DUTY Aluminum Shade with Glass and Guard Options

- Electrical
- 120V input (277V available in arm and post option only)
  - Integrated power supply allows the fixture to be connected directly into the voltage
  - Pre-wired and ready for install
  - LED is dimmable with standard/triac dimmers
- Mounting
- 1/2" or 3/4" IP for arms. Flush mount, stems and post available only in 1/2"
  - IP mount code available in black or white color (includes 1" canopy with the same finish as the shade)

- Features
- Standard and mounting finish options
  - Available in H-21 standard and 2 specialty finishes with optional coating to protect finish in coastal environments (add "C" to the finish)
  - Inner shade is painted glass white
  - Consult factory for custom finish options

Optional Accessories

- Glass, Cast Guard or Wire Guard options available

Listing

UL listed to US and Canadian standards for wet location



Order #	Qty	Part #	Description	Finish	Mounting Type
80000	1	80000	12" x 14" x 14" (H x W x D)	Black	Flush
80001	1	80001	14" x 16" x 16" (H x W x D)	Black	Flush
80002	1	80002	16" x 18" x 18" (H x W x D)	Black	Flush
80003	1	80003	18" x 20" x 20" (H x W x D)	Black	Flush
80004	1	80004	20" x 22" x 22" (H x W x D)	Black	Flush

Order #	Qty	Part #	Description	Finish	Mounting Type
80005	1	80005	12" x 14" x 14" (H x W x D)	White	Flush
80006	1	80006	14" x 16" x 16" (H x W x D)	White	Flush
80007	1	80007	16" x 18" x 18" (H x W x D)	White	Flush
80008	1	80008	18" x 20" x 20" (H x W x D)	White	Flush
80009	1	80009	20" x 22" x 22" (H x W x D)	White	Flush

1. Large used to specify, and are not related to electrical  
2. All fixtures are UL listed for wet location  
3. Glass and wire guard options available  
4. Cast guard and wire guard options available

FIXTURE L1 (REPLACE EXISTING)

Lumark

- DESCRIPTION
- The patented Lumark Crosstour™ MAXX LED wall pack series of luminaires provides long-profile performance in a rugged, energy-efficient LED. The rugged die-cast aluminum construction, back box with secure lock hinges, stainless steel hardware along with sealed and gasketed optical compartment make Crosstour™ extremely resistant to contaminants. The Crosstour MAXX wall luminaire is ideal for wall surface, inverted mount for recessed illumination, perimeter and site lighting. Typical applications include pedestrian walkways, building entrances, multi-use facilities, industrial facilities, perimeter parking areas, storage facilities, institutions, schools and loading docks.

- CONSTRUCTION
- Low-profile LED design with rugged one-piece, die-cast aluminum back box and hinged removable door. Matching gasketed optics incorporates both a full spill and reflector lens design. Full spill and reflector lens models are available in 50W, 41W and 100W. Patented pending secure lock hinge features allows for safe and easy tool-less electrical connections with the supplied push-in connectors. Back box includes four 1/2" NPT threaded conduit entry points. The back box is secured by four lock bolts (included by others). External for design extracts heat from the fixture surface. One-piece aluminum gasket seals door and back box. Not recommended for car wash applications.

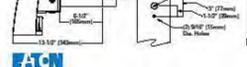
- OPTICAL
- Sealed optical LED luminaire is custom engineered providing high-efficiency illumination. Full cutoff models integrate an impact-resistant enclosed reflective prism optical lens assembly meeting requirements for Dark Sky compliance. Reflective lens models incorporate a modified lens.

- Electrical
- LED driver is mounted to the die-cast aluminum housing for optimal heat sinking. LED thermal management system incorporates both conduction and natural convection to transfer heat rapidly away from the LED source. 50W, 41W and 100W models operate in 40°C to 60°C (104°F to 142°F) High ambient 100°C (212°F) models available in 50W and 41W models only. Crosstour MAXX luminaires maintain greater than 90% of initial light output after 72,000 hours of operation. Four half inch NPT threaded conduit entry points allow for three branch wiring. Back box is an authorized electronic wiring compartment. Integral LED driver enclosure incorporates surge protection. 120-277V 50/60Hz, 400V 60Hz, or 415V 60Hz electrical operation. 400V is compatible for use with 400V Wye systems only.

- Area and Site Pole Mounting
- Optional stainless steel 6.5" arm features internal lock guides for supported main support rods, allowing for easy positioning of the fixture during installation to pole. Supplied with round plate adapter plate. Optional sensor adapter fits 3.5" or 3.5" O.D. Tension.

- Finish
- Crosstour MAXX is protected with a super TFC carbon bronze or silver white polyester powder coat paint. Super TFC powder coat paint finishes withstand extreme climate conditions while providing optimal color and gloss retention of the finished life.

- Applications
- WALL SURFACE  
INVERTED  
SITE LIGHTING

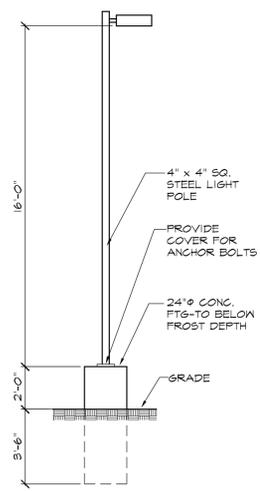


FIXTURE L2 (EX WALL-MT SIMILAR)

FIXTURE L3/4/5/6 (NEW POLE LTS)

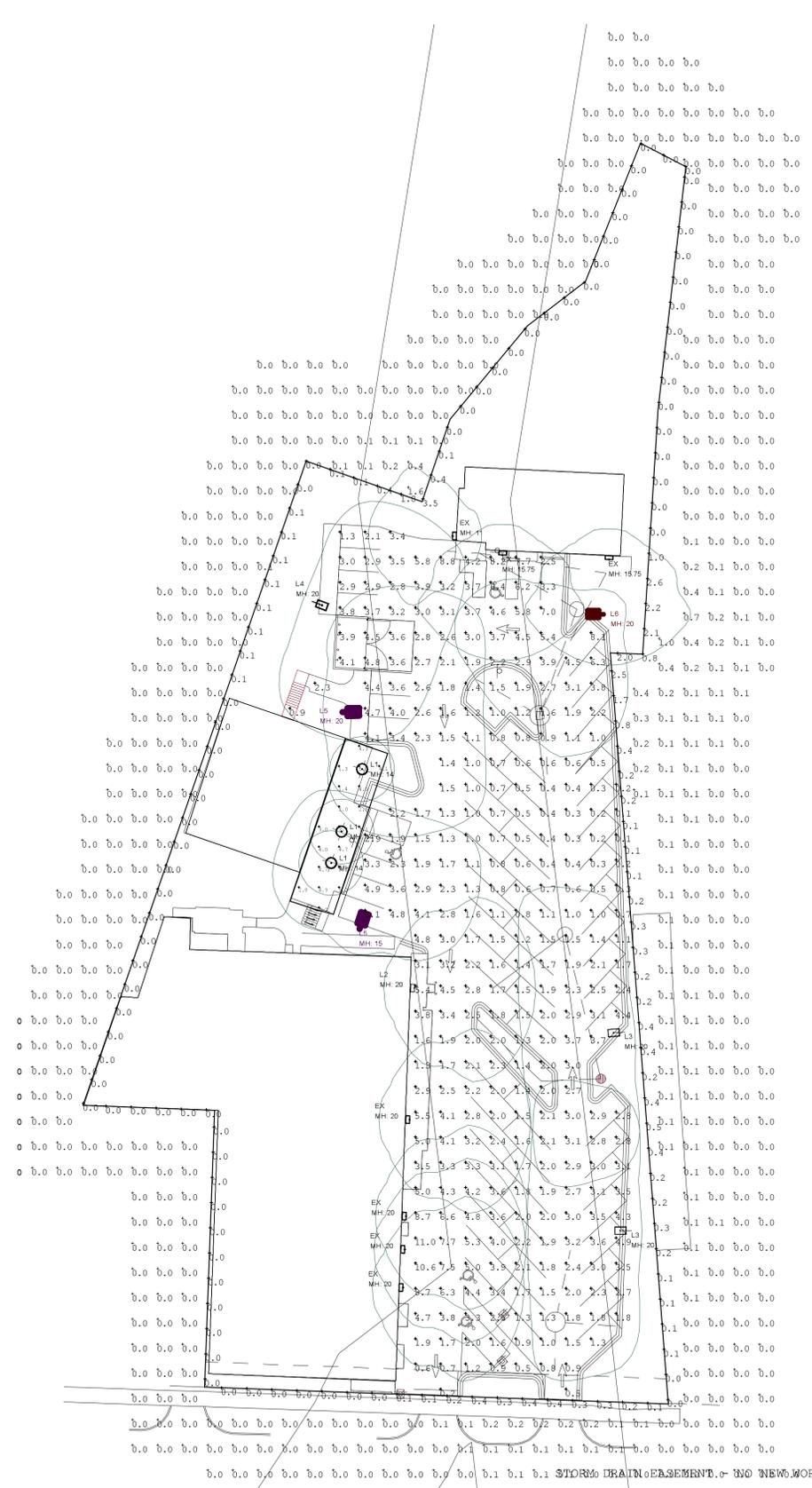
Symbol	Qty	Label	LLF	Description	Lum. Watts	Lum. Lumens
⊖	7	EX	0.900	EXISTING LUMARK XTOR9ARL	79	8504
⊖	3	L1	0.900	TROYRLM RH18-LED1840-XX-XX	17,857	923
⊖	1	L2	0.900	LUMARK XTOR8BRL-W	81	8504
⊖	2	L3	0.900	GLEON-AF-02-LED-E1-SL3-HSS	113	10644
⊖	1	L4	0.900	GLEON-AF-02-LED-E1-SL4-HSS	113	10111
⊖	2	L5	0.900	GLEON-AF-02-LED-E1-SL4	113	11838
⊖	1	L6	0.900	GLEON-AF-02-LED-E1-SLL	113	10949

Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
410 Bldg Walkway	Illuminance	Fc	3.75	5.2	1.3	2.88	4.00
Beyond Property Line	Illuminance	Fc	0.03	1.6	0.0	N.A.	N.A.
Parking Lot	Illuminance	Fc	2.61	11.0	0.1	26.10	110.00
Property Line	Illuminance	Fc	0.23	3.5	0.0	N.A.	N.A.



SINGLE LIGHT POLE DETAIL  
1/4" = 1'-0"

SITE PHOTOMETRIC PLAN 1" = 30'-0"

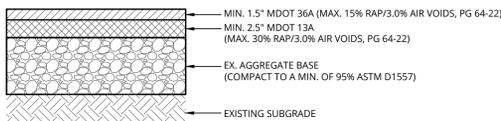


SITE PHOTOMETRIC PLAN 1" = 30'-0"



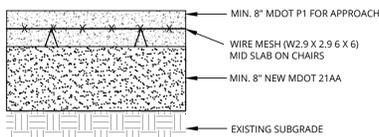
**HMA OVER NEW BASE - STANDARD DUTY - DETAIL**  
NOT TO SCALE

NOTE:  
APPLY TACK COAT OF SS-1H (0.1 GALLONS/S.Y.) BETWEEN ALL HMA LAYERS



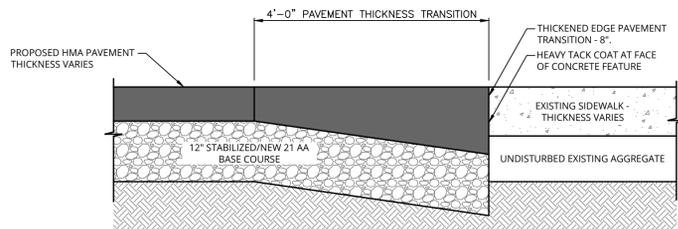
**HMA OVER EXISTING BASE - STANDARD DUTY - DETAIL**  
NOT TO SCALE

NOTE:  
APPLY TACK COAT OF SS-1H (0.1 GALLONS/S.Y.) BETWEEN ALL HMA LAYERS

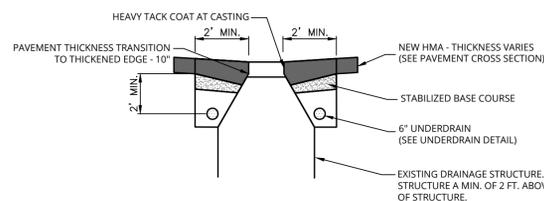


**PCC DUMPSTER PAD DETAIL**  
NOT TO SCALE

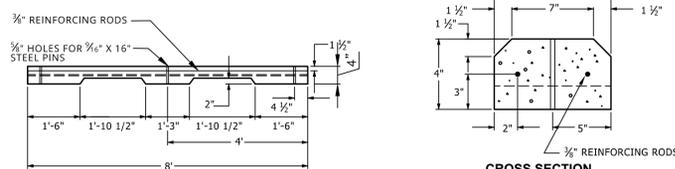
NOTE:  
1. SAWCUT JOINTS TO 12' X 12' SLABS. JOINT TO BE 1/4\"/>



**THICKENED EDGE DETAIL - DETAIL**  
NOT TO SCALE



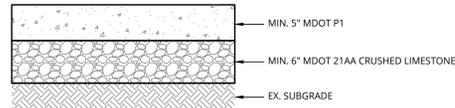
**THICKENED EDGE HMA AT UTILITY STRUCTURE DETAIL**  
NOT TO SCALE



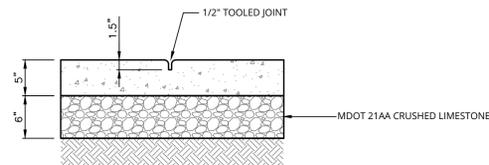
**LONGITUDINAL ELEVATION**

**CONCRETE PARKING BUMPER DETAIL**  
NOT TO SCALE

CONSTRUCTION SITE SAFETY IS THE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME RESPONSIBILITY FOR SAFETY OF THE WORK, OR PERSONS ENGAGED IN THE WORK, OF NEARBY STRUCTURES, NOR OF OTHER PERSONS.

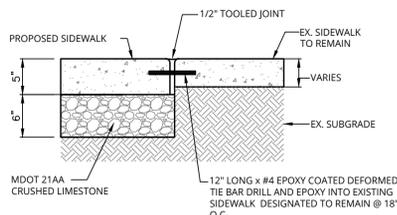


**SIDEWALK - DETAIL**  
NOT TO SCALE

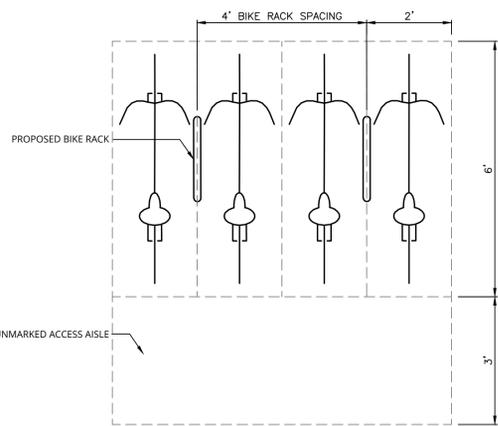


**SIDEWALK EXPANSION JOINT DETAIL**  
NOT TO SCALE

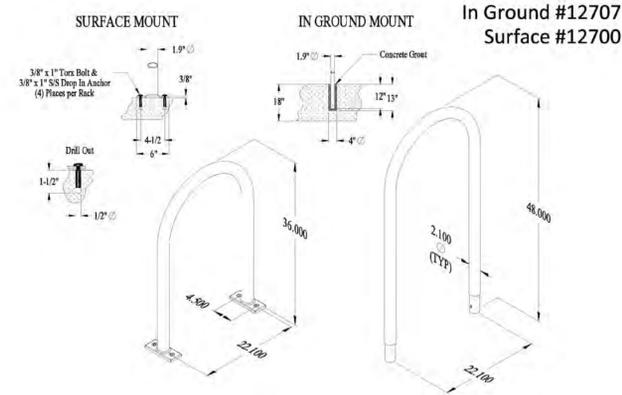
**SIDEWALK CONTROL JOINT DETAIL**  
NOT TO SCALE



**SIDEWALK CONSTRUCTION JOINT DETAIL**  
NOT TO SCALE



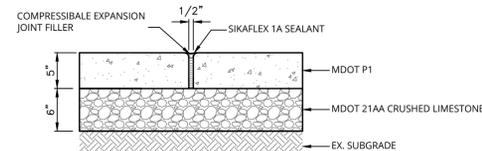
**BIKE PARKING SPACE DETAIL**  
NOT TO SCALE



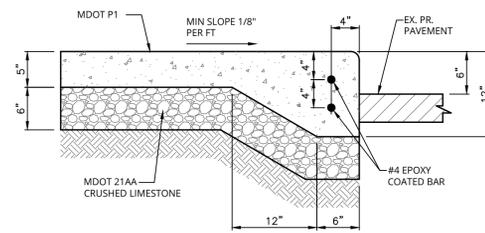
**Plastisol (Classic) Racks**  
Surface Mount / In Ground Mount {Dims}

**BIKE RACK DETAIL**  
NOT TO SCALE

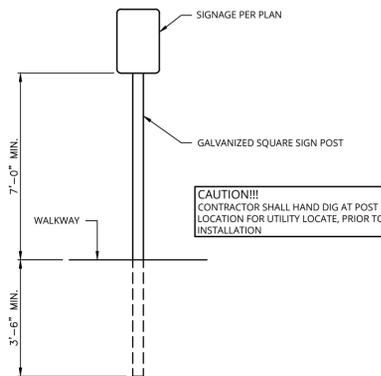
NOTE: OR APPROVED ALTERNATIVE BY OWNER.



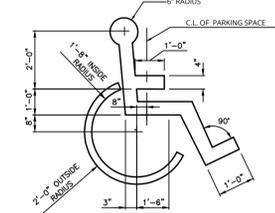
**SIDEWALK EXPANSION JOINT DETAIL**  
NOT TO SCALE



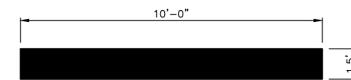
**THICKENED EDGE SIDEWALK DETAIL**  
NOT TO SCALE



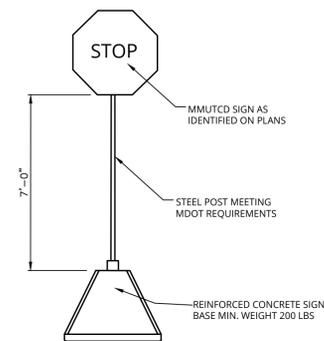
**SIGN WITH POST IN GREENBELT**  
NOT TO SCALE



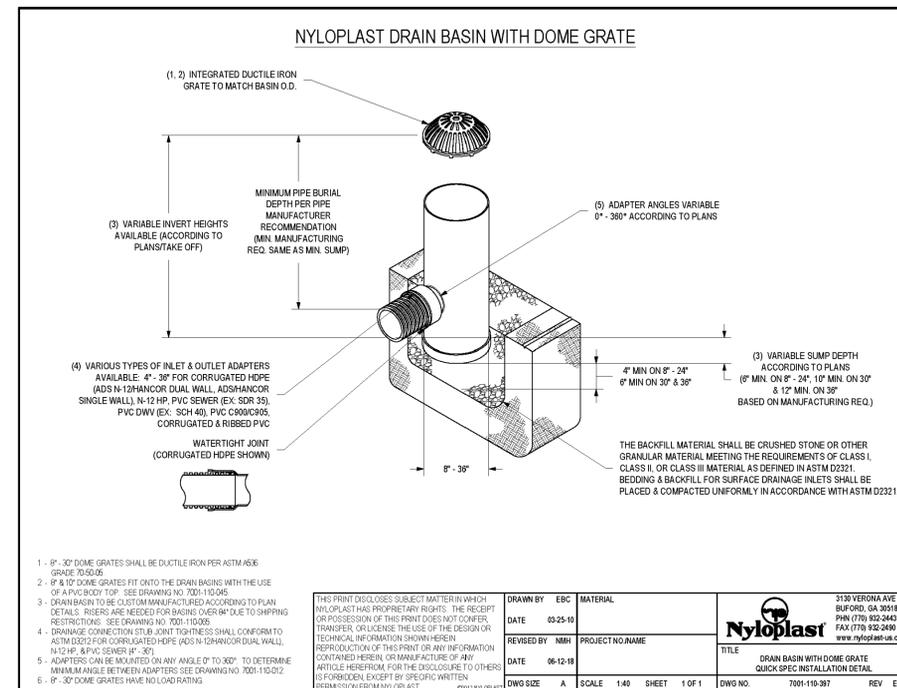
**BARRIER FREE DETAIL**  
NOT TO SCALE



**STOP BAR WITH STOP - DETAIL**  
NOT TO SCALE



**SIGN ON CONCRETE BASE DETAIL**  
NOT TO SCALE



**YARD BASIN DETAIL**  
NOT TO SCALE

**ISSUED FOR SITE PLAN APPROVAL**



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Orientation	Scale
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**Project**  
**WEST HURON PROPERTIES, LLC PAVEMENT IMPROVEMENTS**

**Project Location**  
**416, 410 & 404 W. HURON ST. ANN ARBOR, MI 48103**

**Sheet Name**  
**DETAILS**

**Engineer's Seal**



REV	ISSUED FOR	DATE	BY
01	SITE PLAN SUBMITTAL	09/26/2019	MMA
02	SITE PLAN SUBMITTAL	05/19/2020	JAS
03	SITE PLAN PER CITY COMMENTS	07/22/2020	JAS
04	SITE PLAN WCVRC SUBMITTAL	10/08/2020	HJC
05	SITE PLAN PER CITY COMMENTS	10/26/2020	HJC
06	SITE PLAN PER CITY COMMENTS	11/11/2020	HJC

**Date**  
**08-26-2019**

**SME Project No.**  
**081266.00**

**Project Manager:**  
**JAS**

**Designer:**  
**HJC**

**CADD:**  
**HJC**

**Checked By:**  
**BH**

**Sheet No.**  
**D-100**

DRAWING NOTE: SCALE DERIVED IS MEANT FOR 24" X 36" AND WILL SCALE INCORRECTLY IF PRINTED ON ANY OTHER SIZE NOTE: NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR CONSENT OF SME © 2019

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Nov 11, 2020 - 12:52pm - ceron



Orientation Scale

**Project**  
**WEST HURON PROPERTIES, LLC PAVEMENT IMPROVEMENTS**

**Project Location**  
**416, 410 & 404 W. HURON ST. ANN ARBOR, MI 48103**

**Sheet Name**  
**DETAILS**

**Engineer's Seal**



**Revisions**

REV	ISSUED FOR	DATE	BY
01	SITE PLAN SUBMITTAL	09/26/2019	JAS
02	SITE PLAN SUBMITTAL	05/19/2020	JAS
03	SITE PLAN PER CITY COMMENTS	07/22/2020	JAS
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Date  
**08-26-2019**

SME Project No.  
**081266.00**

Project Manager:  
**JAS**

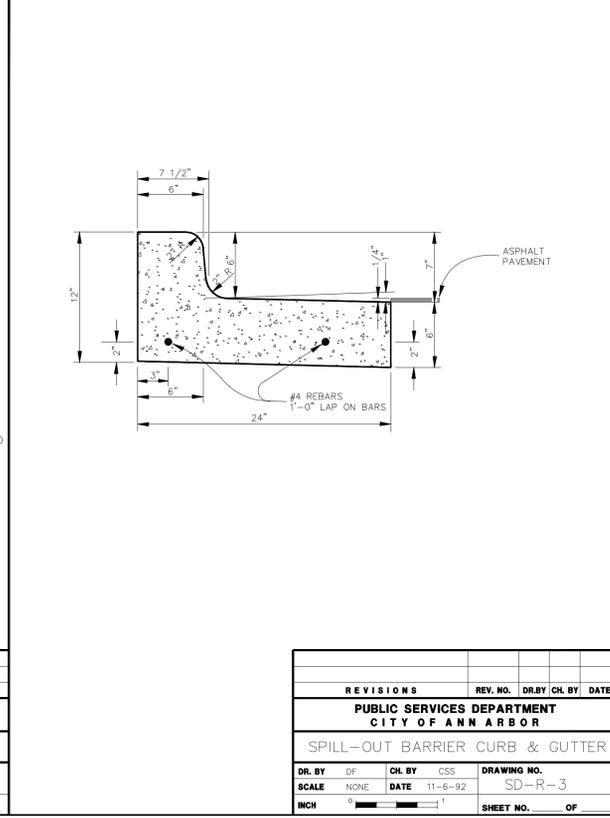
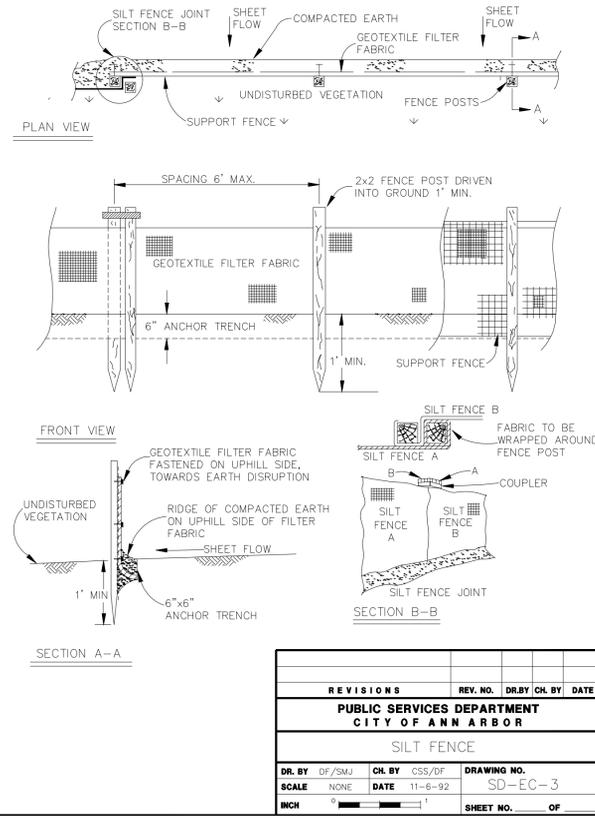
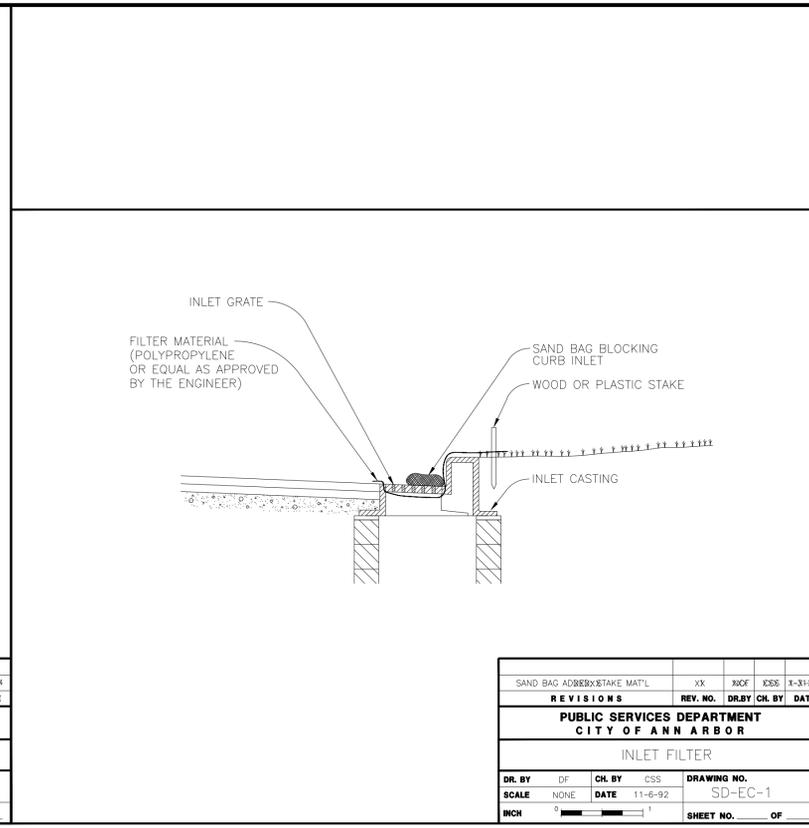
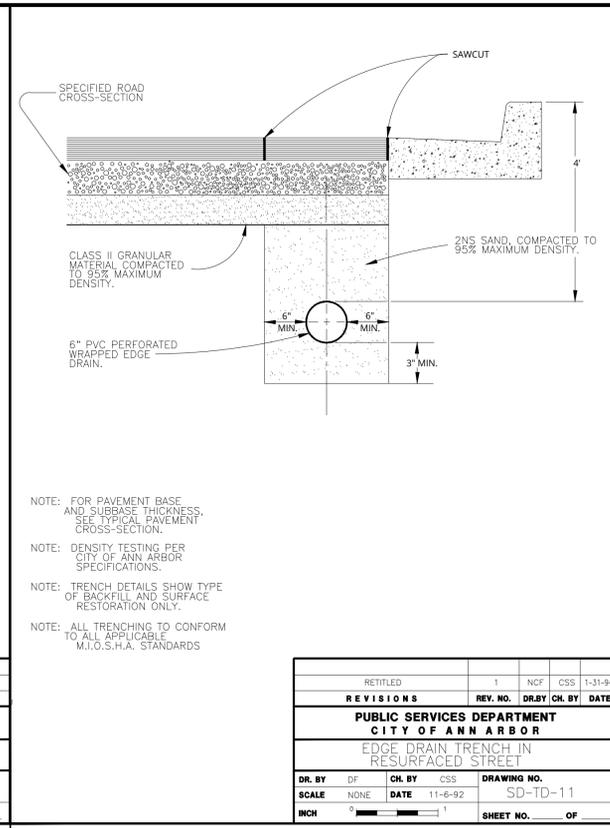
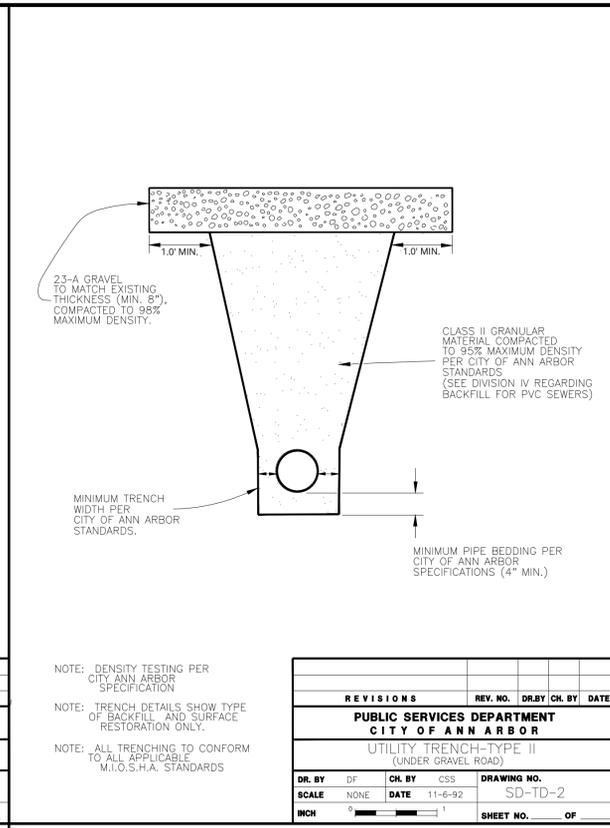
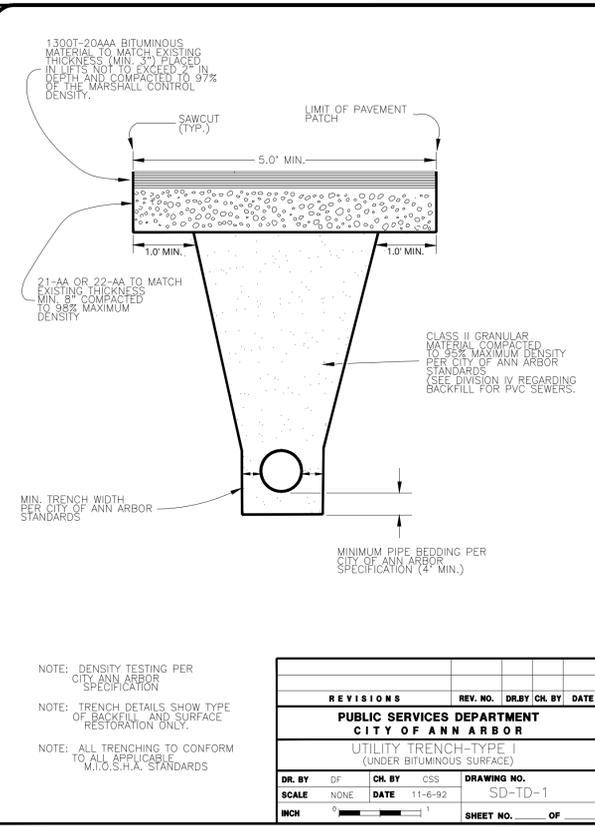
Designer:  
**HJC**

CADD:  
**HJC**

Checked By:  
**BH**

Sheet No.  
**D-101**

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FILE LOCATION: \\sme-inc\p\WP\081266.00\CAD\DWG\SS\PA\rev\081266.00-Detail.dwg