McDonald's®

605 S 7TH ST
KANSAS CITY, KS 66105

DESIGNER OF RECORD:

DISCIPLINE:	NAME	REPRESENTATIVE	ADDRESS	PHONE#
CIVIL:	OLSSON	RYAN YENNI	302 S. 4TH ST., STE 110, MANHATTAN, KS 66502	785.539.6900

OWNER REPRESENTATIVE:

DISCIPLINE:	NAME	REPRESENTATIVE	ADDRESS	PHONE#
CONST. MGR.:	McDONALD'S	CARTER MANN	4643 S. ULSTER STREET, DENVER, CO 80237	816.518.6539

REGION: MIDWEST

BUILDING INFORMATION

ADDRESS

STATE SITE CODE: 015-0071
STREET ADDRESS: 605 S 7TH ST
CITY: KANSAS CITY
COUNTY: WYANDOTTE
STATE: KANSAS

SITE:

MCDONALD'S SITE AREA: 75,458 SF (1.4 AC)
PARCEL #: 216300
ZONED: CP-2 (COMMERCIAL DISTRICT)
KUPN.: 065220200400100001
DISTURBED AREA: 1.5 AC

BUILDING CODES:

BUILDING CODE EDITION: INTL. BUILDING CODE 2012
MECHANICAL CODE EDITION: UNIFORM MECH. CODE 2012
ELECTRICAL CODE EDITION: NATIONAL ELECTRICAL CODE 2011
PLUMBING CODE EDITION: UNIFORM PLUMBING CODE 2012
ENERGY CODE EDITION: INTL. ENERGY CODE 2009
FIRE/LIFE SAFETY: INTL. FIRE CODE 2012, CURRENT NFPA LINE SAFETY CODE
ORDINANCES OF THE UNITED GOVERNMENT OF WYANDOTTE CO. AND KANSAS CITY, KS

BUILDING DATA:

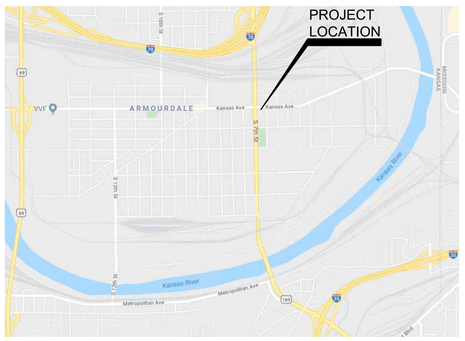
NUMBER OF STORIES: 1
EXISTING BUILDING AREA: 4197 SF
PROPOSED GROSS BUILDING AREA: 7901 SF

SCOPE OF WORK

- DEMOLISH EXISTING FACILITIES
- INSTALL UNDERGROUND UTILITIES
- CONSTRUCT NEW BUILDING
- CONSTRUCT DRIVE THRU, PARKING, TRASH ENCLOSURE
- INSTALL LANDSCAPING

VICINITY MAP

NOT TO SCALE



AERIAL PHOTO

NOT TO SCALE

GENERAL CONSTRUCTION NOTES:

GENERAL NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT THE PLANS IN THEIR POSSESSION ARE THE MOST CURRENT VERSION ISSUED, ARE FULLY COORDINATED WITH ALL SUBCONTRACTORS, AND PRESENT ON SITE AT ALL TIMES. CURRENT PLANS PREPARED BY OLSSON MAY BE OBTAINED AT THE DIRECTION OF OLSSON'S CLIENT. DIRECT REQUESTS TO OLSSON MAY REQUIRE ADDITIONAL AUTHORIZATIONS, AGREEMENTS, AND/OR FEES. PLEASE CONTACT THE ENGINEER FOR INFORMATION.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DEVIATIONS FROM THESE PLANS UNLESS WRITTEN APPROVAL FROM ENGINEER, OWNER, AND DEVELOPER.
3. ALL WORK AND MATERIALS SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE OWNER OR THE OWNER'S REPRESENTATIVE.
4. ALL ESTIMATES OF QUANTITIES ARE FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING QUANTITIES AND ITEMS OF WORK.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL LABOR, MATERIALS, AND EQUIPMENT REQUIRED TO COMPLETE THE WORK SHOWN IN THE PLANS.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS, PAYING ALL FEES, AND FOR OTHERWISE COMPLYING WITH ALL APPLICABLE REGULATIONS GOVERNING THE WORK.
7. THE CONTRACTOR SHALL NOT ENGAGE IN ACTIVITIES THAT MAY ENCROACH ON WATERS OF THE U.S., INCLUDING WETLANDS, UNTIL ANY NECESSARY PERMITS MAY BE OBTAINED. THE CONTRACTOR SHALL REVIEW AND COMPLY WITH ALL CONDITIONS DESCRIBED IN THE PERMIT.
8. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, THE SAFETY OF ALL PERSONS INCLUDING VISITORS AND THE GENERAL PUBLIC, AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY THROUGHOUT THE PROJECT AND NOT BE LIMITED BY WORKING HOURS. ANY CONSTRUCTION OBSERVATION BY THE ENGINEER OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES.
9. PRIOR TO COMMENCEMENT OF WORK THE CONTRACTOR SHALL NOTIFY AND COORDINATE WITH ALL UTILITY COMPANIES AND OBTAIN ANY RELEVANT INFORMATION. NOTIFY ENGINEER OF ANY DISCREPANCIES.
10. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL BOUNDARY CORNERS AND SECTION CORNERS. ANY BOUNDARY CORNER AND/OR SECTION CORNER DISTURBED OR DAMAGED BY CONSTRUCTION ACTIVITIES SHALL BE RESET BY A LAND SURVEYOR LICENSED IN THE STATE OF KS, AT THE CONTRACTOR'S EXPENSE.
11. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ADJACENT PROPERTIES AND SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT DAMAGE DURING CONSTRUCTION. THE CONTRACTOR IS ALSO RESPONSIBLE FOR REPAIRING ANY DAMAGE RESULTING FROM CONSTRUCTION ACTIVITIES.
12. PRIOR TO MOVING OFF THE JOB THE CONTRACTOR SHALL NOTIFY THE OWNER AND ENGINEER TO PERFORM A FINAL WALK-THROUGH OF THE CONSTRUCTION SITE.ACTUAL SITE SIGNAGE LOCATIONS TO BE COORDINATED WITH CONSTRUCTION MANAGER PER ARCHITECTURAL PLANS.
13. THE CONTRACTOR SHALL PROVIDE AN "AS-BUILT" PLAN WITH ALL MODIFICATIONS/CHANGES NOTED/SHOWN ON THE FINAL DRAWING SET.
14. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE DELIVERY MANAGER AND COORDINATING ANY MAILBOXES THAT MAY BE DISTURBED. FAILURE TO DO SO MAY SUBJECT THE CONTRACTOR TO PROSECUTION BY THE FEDERAL GOVERNMENT.

REFERENCES

1. ARCHITECTURAL AND STRUCTURAL ELEMENTS SHOWN IN THESE PLANS ARE FOR REFERENCE ONLY. CONTRACTORS AND SURVEYORS SHALL REFERENCE THEIR RESPECTIVE PLANS FOR DESIGN INFORMATION.
2. THE CONTRACTOR SHALL ADHERE TO THE SITE PREPARATION AND STRUCTURAL FILL RECOMMENDATIONS IN THE GEOTECHNICAL REPORT AS PROVIDED BY THE GEOTECHNICAL ENGINEER INCLUDING ALL CURRENT ADDENDUMS. THE STANDARDS AND SPECIFICATIONS OF KANSAS CITY, KS SHALL ALSO APPLY AND TAKE PRECEDENCE WHEN STRICTER THAN THE GEOTECHNICAL REPORT OR WHEN NO GEOTECHNICAL REPORT IS GIVEN.
3. UNLESS EXPLICITLY DESCRIBED OTHERWISE WITHIN THESE PLANS THE FOLLOWING SHALL APPLY;
   E. ALL CONSTRUCTION, INCLUDING THOSE LISTED BELOW, SHALL CONFORM TO THE LATEST CODES AND ORDINANCES OF KANSAS CITY, KS.
   F. ALL TRAFFIC CONTROL SIGNAGE SHALL CONFORM WITH THE CURRENT EDITION OF THE MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
   G. ALL UTILITY EXTENSIONS AND CONSTRUCTION SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE UTILITY COMPANIES..
   H. ALL EXTERIOR PAVEMENT (PCC, ASPHALT, ETC.) SHALL BE IN CONFORMANCE WITH THE SPECIFICATIONS OF KANSAS CITY, KS AND THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT BY OLSSON DATED MAY 22, 2019.

REVISIONS

DRAWING INDEX

COV – COVER SHEET
C1.0 – EXISTING CONDITIONS–SURVEY
C1.1 – PARCEL TITLE SURVEY
C2.0 – DEMOLITION PLAN
C2.1 – CONSTRUCTION PHASING (1) NEW SHEET
C3.0 – EROSION CONTROL PLAN
C4.0 – SITE PLAN
C4.1 – SITE LAYOUT
C4.2 – DRIVE THRU LAYOUT
C5.1 – CIVIL UTILITY PLAN
C5.0 – GRADING PLAN
C6.0 – DETAIL
C6.1 – DETAIL
C6.2 – DETAIL
C6.3 – DETAIL
C6.4 – DETAIL
C6.5 – DETAIL
C6.6 – DETAIL
C3.1 – EROSION CONTROL DETAIL
~~C3.2 – EROSION CONTROL DETAIL~~ (1) SHEET REMOVED
L1.0 – LANDSCAPE PLAN
L1.1 – LANDSCAPE NOTES& DETAILS
L1.2 – IRRIGATION SPECIFICATIONS
P1.0 – PHOTOMETRIC LIGHTING PLAN
P3.0 – DETAILS
P4.0 – GENERAL NOTES
P4.1 – SCHEDULES (1)

SHEETS INCLUDED FROM BUILDING CONSTRUCTION DOCUMENTS FOR PLUMBING COORDINATION.

UTILITY CONTACTS:

ELECTRIC: ASHLEY BEGGS (BPU)
6742 RIVERVIEW AVE.
KANSAS CITY, KS 66111
914-573-9535

WATER (BPU):
JENNY LI
(913)-573-9845
JLI@BPU.COM

SEWER, STORM SEWER (BPU):
KEVIN SWEARENGIN OR KIRK ROLAND
(913)-573-1360 (1)

TELEPHONE: KENNY ANDERSON (AT&T)
9444 NALL AVE.
OVERLAND PARK, KS 66207
913-383-4940
ka24888@att.com

GAS: BRETT SWOYER (ONE GAS)
brettswoyer@onegas.com
913-599-8940

REV	DATE	DESCRIPTION	BY
1	02.21.2020	PRELIMINARY/FINAL PLAN REVIEW REVISIONS	RMY
	01.22.2020	CONSTRUCTION DOCUMENTS	RMY

RYAN M. YENNI LICENSED 27378 KANSAS PROFESSIONAL ENGINEER 01-21-20

olsson
302 S. 4th Street, Suite 110
Manhattan, Kansas 66502
TEL 785.539.6900
FAX 785.539.6901
www.olsson.com

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PREPARED FOR: McDonald's USA, LLC
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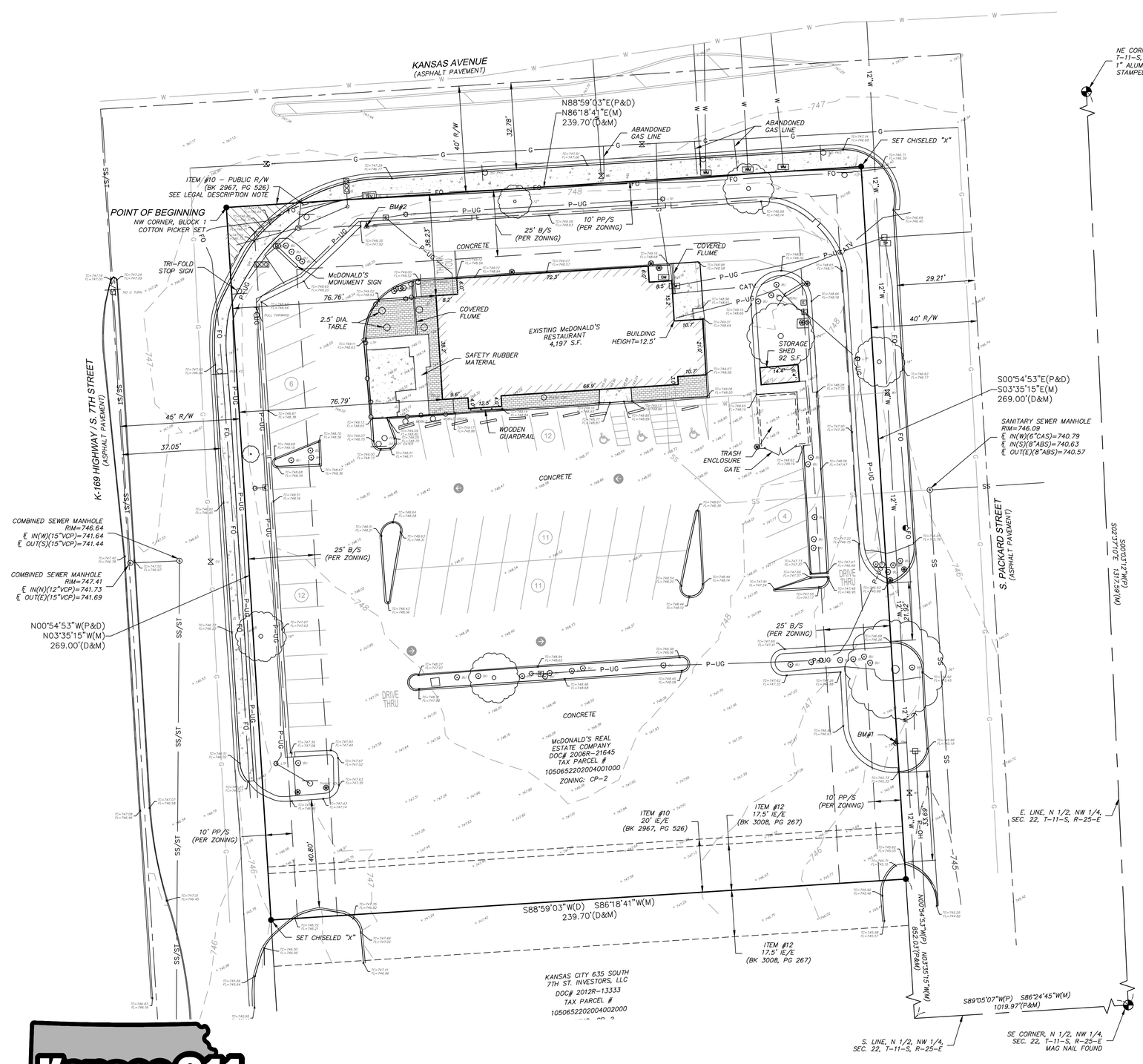
DRAWN BY: RMY
STD ISSUE DATE: 1/22/2020
REVIEWED BY: MAP
DATE ISSUED: 1/22/2020

TITLE: COVER SHEET
DESCRIPTION: 2018 PROTOTYPE 45'X97' + 10 EXPANSION
SITE ID: 015-0071
SITE ADDRESS: 605 S 7TH ST, KANSAS CITY, KS 66105

SHEET NO.: 015-0071.00.0
COV

DWG: F:\2019\1001-1500\019-1175\40-Design\AutoCAD\Final Plans\Sheets\GNCV\C_TTL_0191175.dwg USER: rynni
DATE: Feb 20, 2020 3:45pm XREFS: C_PTBLK_0191175



VICINITY MAP
NOT TO SCALE

LEGEND

SECTION CORNER FOUND	CROSSWALK SIGNAL
1/2" BAR w/ LC-114 CAP SET UNLESS NOTED OTHERWISE	TRAFFIC SIGNAL MANHOLE
BENCHMARK	FIRE HYDRANT
(P) PLATTED	WATER VALVE
(D) DESCRIBED	WATER METER
R/W RIGHT-OF-WAY	GAS METER
IE/E INGRESS/EGRESS EASEMENT	GAS VALVE
B/S BUILDING SETBACK	SANITARY SEWER MANHOLE / COMBINED SEWER MANHOLE
PP/S PARKING/PAVING SETBACK	TELEPHONE PEDESTAL
BOLLARD	TELEPHONE VAULT
TRASH CAN	FIBER OPTIC SIGN
SIGN	SPOT ELEVATION
FP FLAG POLE	TOP OF CURB / FLOWLINE OF CURB
STEEL POST	STEEL FENCE
BU BUSH	W WATER LINE
DECIDUOUS TREE	G GAS LINE
SPEAKER BOX	SS SANITARY SEWER LINE
E ELECTRIC BOX	SS/ST COMBINED SEWER LINE
EM ELECTRIC METER	P-OH OVERHEAD POWER LINE
GUY ANCHOR	P-UG UNDERGROUND POWER LINE
GUY POLE	CATV UNDERGROUND CABLE TV
LIGHT POLE	FO FIBER OPTIC LINE
POWER POLE	1000 EXISTING GROUND CONTOUR (1' CONTOUR INTERVAL)
TRAFFIC SIGNAL w/ MAST ARM	PERMANENT EASEMENT FOR PUBLIC RIGHT-OF-WAY (BK 2967, PG 526) APPROX. LOCATION SHOWN PER SEVENTH STREET VIADUCT WIDENING PLANS DATED JUNE 2, 1972. PROJECT NO. 105-EHS T-4002 (3)

NOTE:

FADED UTILITY LINEWORK IS SHOWN PER UTILITY MAPS OR OLD DESIGN PLANS. SEE UTILITY INFORMATION NOTE.

UTILITY INFORMATION:

KANSAS ONE CALL - TICKET #19194067 DATED 5/8/19
CITY OF KANSAS CITY UTILITY MAPS DATED 5/22/19
McDONALD'S DESIGN DRAWING DATED 5/14/84

UTILITY NOTE:

OLSSON AND THE SURVEYOR OF RECORD MAKE NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN HEREON COMPRISE OF ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. OLSSON AND THE SURVEYOR OF RECORD FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. OLSSON AND THE SURVEYOR OF RECORD HAVE NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. IF ANY UNDERGROUND UTILITY LOCATIONS ARE REQUIRED THEY WILL HAVE TO BE VERIFIED BY FIELD POTHOLING THE UTILITIES. OLSSON AND THE SURVEYOR OF RECORD SHALL NOT BE LIABLE FOR THE LOCATION OF OR THE FAILURE TO NOTE THE LOCATION OF NON-VISIBLE UTILITIES.

PROJECT SURVEY CONTROL:

HORIZONTAL CONTROL IS BASED ON THE KANSAS CONTINUOUSLY OPERATING GNSS NETWORK

HORIZ. DATUM: KANSAS STATE PLANE, NORTH ZONE, NAD83, U.S. FEET
VERT. DATUM: NAVD88 - U.S. FEET

VERT. DATUM BENCHMARK:
ELEVATION = 761.83
NGS POINT PID KE0257, DESIGNATION HLR28

SURVEY DISK SET IN TOP OF CONCRETE MONUMENT, STAMPED "HLR NO 28". AT KANSAS CITY, WYANDOTTE COUNTY, ON THE EAST BANK OF KANSAS RIVER, 115 FEET WEST OF THE SEVENTH STREET BRIDGE, 102 FEET SOUTHEAST OF A VERTICAL RAIL BEARING AN ATCHISON, TOPEKA AND SANTA FE RAILWAY NO TRESPASSING SIGN, AT THE INTERSECTION OF SOUTH SEVENTH STREET AND METROPOLITAN AVENUE, 27.6 FEET SOUTHEAST OF THE CENTER OF THE AVENUE, 22.0 FEET NORTHEAST OF THE CENTER OF THE STREET, 0.7 FEET SOUTHWEST OF A WITNESS POST AND GUARD RAIL.

BENCHMARKS:

BM#1:
"MUE" IN MUELLER ON FIRE HYDRANT @ SE CORNER OF PROPERTY, 40'± WEST OF CENTER OF PACKARD STREET, 258'± SOUTH OF CENTER OF KANSAS AVENUE.
ELEV.=748.19

BM#2:
CHISELED SQUARE IN TOP OF CONCRETE CURB @ NW CORNER OF PROPERTY, 50'± SOUTH OF CENTER OF KANSAS AVENUE, 97'± EAST OF CENTER OF 7TH STREET
ELEV.=748.37

CERTIFICATION:

TO: McDONALD'S CORPORATION, McDONALD'S USA, LLC, McDONALD'S REAL ESTATE COMPANY, CHICAGO TITLE COMPANY, LLC AND CHICAGO TITLE INSURANCE COMPANY

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 5, 7(A), 7(B)(1), 7(C), 8, 9, 11a, 13, 16, 17, 19 & 21 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON MAY 15, 2019.

GREGORY CHAD WELLER
LICENSED KANSAS LAND SURVEYOR
LS-1417
5/17/2019
GREGORY CHAD WELLER
KANSAS LS-1417
OLSSON, LC-114

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REV. NO.	DATE	REVISIONS DESCRIPTION
		REVISIONS

ALTA/NSPS LAND TITLE SURVEY

McDONALD'S RESTAURANT
645 KANSAS AVENUE

KANSAS CITY, WYANDOTTE COUNTY, KANSAS

2020

drawn by:	AJK
checked by:	
approved by:	GCW
QA/QC by:	GCW
project no.:	019-1175
drawing no.:	V_ALT_0191175
date:	02/19/20

SHEET
1 of 2

DWG: F:\2019\1001-1500\019-1175\40-Design\Survey\SRVY\Sheets\V_ALT_0191175.dwg USER: dkruse
DATE: Feb 19, 2020 3:08pm XREFS:

TITLE & EASEMENT INFORMATION FURNISHED BY:

CHICAGO TITLE INSURANCE COMPANY
ISSUING AGENT:
CHICAGO TITLE COMPANY, LLC
6700 COLLEGE BLVD.
OVERLAND PARK, KS 66211
TEL: (913)451-1026
COMMITMENT NO.: 190927
EFFECTIVE DATE: JANUARY 23, 2020 @ 8:00 A.M.

LEGAL DESCRIPTION:

ALL THAT PART OF BLOCK 1, ARMOURDALE COMMUNITY REDEVELOPMENT AREA, A SUBDIVISION OF LAND IN KANSAS CITY, WYANDOTTE COUNTY, KANSAS, DESCRIBED AS FOLLOWS:
BEGINNING AT THE NORTHWEST CORNER OF SAID BLOCK 1, SAID POINT BEING AN INTERSECTION OF THE EAST RIGHT-OF-WAY LINE OF 7TH STREET WITH THE SOUTH RIGHT-OF-WAY LINE OF KANSAS AVENUE; THENCE NORTH 88°59'03" EAST ALONG THE SOUTH LINE OF KANSAS AVENUE, A DISTANCE OF 239.70 FEET TO A POINT ON THE WEST RIGHT-OF-WAY LINE OF PACKARD STREET; THENCE SOUTH 0°54'53" EAST ALONG THE WEST RIGHT-OF-WAY LINE OF SAID PACKARD STREET AND ALONG THE EAST LINE OF SAID BLOCK 1, A DISTANCE OF 269.00 FEET; THENCE SOUTH 88°59'03" WEST 239.70 FEET TO A POINT ON THE EAST RIGHT-OF-WAY LINE OF 7TH STREET AS NOW PLATTED, SAID POINT ALSO BEING ON THE WEST LINE OF SAID BLOCK 1; THENCE NORTH 0°54'53" WEST ALONG THE EAST RIGHT-OF-WAY LINE OF SAID 7TH STREET AND ALONG THE WEST LINE OF SAID BLOCK 1, A DISTANCE OF 269.00 FEET TO THE POINT OF BEGINNING.

BEING THE SAME AS:
A TRACT OF LAND LOCATED IN BLOCK 1, ARMOURDALE COMMUNITY REDEVELOPMENT AREA, A SUBDIVISION OF LAND IN KANSAS CITY, KANSAS, BEING LOCATED IN THE NORTHWEST QUARTER OF SECTION 22, TOWNSHIP 11 SOUTH, RANGE 25 EAST OF THE 6TH PRINCIPAL MERIDIAN, WYANDOTTE COUNTY, KANSAS, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
BEGINNING AT THE NORTHWEST CORNER OF SAID BLOCK 1;
THENCE ON AN ASSUMED BEARING OF N86°18'41"E ALONG THE NORTH LINE OF SAID BLOCK 1, A DISTANCE OF 239.70 FEET TO THE NORTHEAST CORNER OF SAID BLOCK 1;
THENCE S03°35'15"E ALONG THE EAST LINE OF SAID BLOCK 1, A DISTANCE OF 269.00 FEET;
THENCE S86°18'41"W A DISTANCE OF 239.70 FEET TO A POINT ON THE WEST LINE OF SAID BLOCK 1;
THENCE N03°35'15"W ALONG SAID WEST LINE, A DISTANCE OF 269.00 FEET TO THE POINT OF BEGINNING.

NOTE:
THE SURVEYED PROPERTY IS SUBJECT TO A PERMANENT EASEMENT FOR PUBLIC RIGHT-OF-WAY ACCORDING TO DEED BOOK 2967, PAGE 526 IN WYANDOTTE COUNTY REGISTER OF DEEDS OFFICE. THIS DEED DOES NOT DESCRIBE THE ACTUAL LOCATION OF THE RIGHT-OF-WAY. THIS SURVEY SHOWS AN APPROXIMATE LOCATION OF THE RIGHT-OF-WAY PER SEVENTH STREET VIADUCT WIDENING PLANS DATED JUNE 2, 1972.
PROJECT NO. 105-EHS T-4002 (3)

SCHEDULE B - SECTION II EXCEPTIONS:

8. BUILDING LINES, RESTRICTIONS, UTILITY, DRAINAGE, STORM SEWER, SANITARY SEWER, AND WATERLINE EASEMENTS SHOWN ON THE PLAT RECORDED PLAT BOOK 33, PAGE 68. (AFFECTS THE SURVEYED PROPERTY AND IS SHOWN HEREON.)

9. TERMS, CONDITIONS, COVENANTS, AND RESTRICTIONS AS SET OUT IN THE GENERAL URBAN RENEWAL PLAN, NEIGHBORHOOD DEVELOPMENT PROGRAM NO. KANS. A-1, BUT OMITTING ANY COVENANTS OR RESTRICTIONS, IF ANY, INCLUDING BUT NOT LIMITED TO THOSE BASED UPON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, FAMILIAL STATUS, MARITAL STATUS, DISABILITY, HANDICAP, NATIONAL ORIGIN, ANCESTRY, SOURCE OF INCOME, GENDER, GENDER IDENTITY, GENDER EXPRESSION, MEDICAL CONDITION OR GENETIC INFORMATION, AS SET FORTH IN APPLICABLE STATE OR FEDERAL LAWS, EXCEPT TO THE EXTENT THAT SAID COVENANT OR RESTRICTION IS PERMITTED BY APPLICABLE LAW, AS SET FORTH IN THE DOCUMENT.

RECORDING DATE: AUGUST 31, 1972
RECORDING NO: BOOK 2347, PAGE 110
(AFFECTS THE SURVEYED PROPERTY, BUT IS NOT A SURVEY MATTER.)

10. EASEMENTS AS SET OUT IN WARRANTY DEED FILED SEPTEMBER 16, 1983, IN BOOK 2967, PAGE 526, AS DESCRIBED IN SAID INSTRUMENT. (AFFECTS THE SURVEYED PROPERTY AND IS SHOWN HEREON.)

11. COVENANTS, CONDITIONS AND RESTRICTIONS BUT OMITTING ANY COVENANTS OR RESTRICTIONS, IF ANY, INCLUDING BUT NOT LIMITED TO THOSE BASED UPON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, FAMILIAL STATUS, MARITAL STATUS, DISABILITY, HANDICAP, NATIONAL ORIGIN, ANCESTRY, SOURCE OF INCOME, GENDER, GENDER IDENTITY, GENDER EXPRESSION, MEDICAL CONDITION OR GENETIC INFORMATION, AS SET FORTH IN APPLICABLE STATE OR FEDERAL LAWS, EXCEPT TO THE EXTENT THAT SAID COVENANT OR RESTRICTION IS PERMITTED BY APPLICABLE LAW, AS SET FORTH IN THE DOCUMENT.

RECORDING DATE: SEPTEMBER 16, 1983
RECORDING NO: BOOK 2967, PAGE 526
(AFFECTS THE SURVEYED PROPERTY, BUT IS NOT A SURVEY MATTER.)

12. TERMS AND PROVISIONS OF THE EASEMENT AND MAINTENANCE AGREEMENT FILED IN BOOK 3008, PAGE 267, AS DESCRIBED IN SAID INSTRUMENT. (AFFECTS THE SURVEYED PROPERTY AND IS SHOWN HEREON.)

SURVEYOR'S NOTES:

1. GROSS LAND AREA = 64,479 SQUARE FEET, 1.48 ACRES
2. THERE WAS NO EVIDENCE OF RECENT EARTH MOVING WORK, BUILDING CONSTRUCTION OR BUILDING ADDITIONS OBSERVED IN THE PROCESS OF CONDUCTING THE FIELD WORK.
3. THERE ARE NO PROPOSED CHANGES TO THE STREET RIGHT OF WAY LINES. THERE WAS NO EVIDENCE OF RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS OBSERVED IN THE PROCESS OF CONDUCTING THE FIELD WORK.
4. ITEMS SHOWN AS "PER PLAT" REFER TO THE FINAL PLAT OF ARMOURDALE COMMUNITY REDEVELOPMENT AREA, RECORDED IN PLAT BOOK 33, PAGE 68 IN THE WYANDOTTE COUNTY REGISTER OF DEEDS OFFICE.
5. THIS SURVEY COMPLIES WITH THE REQUIREMENTS SET FORTH IN THE McDONALD'S SURVEY ORDER FORM AND MINIMUM REQUIREMENTS.

FLOOD ZONE INFORMATION:

THE SUBJECT PROPERTY IS LOCATED IN "ZONE X – OTHER FLOOD AREAS" (AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAT 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD); ACCORDING TO THE FLOOD INSURANCE RATE MAP (FIRM) FOR WYANDOTTE COUNTY, KANSAS AND INCORPORATED AREAS; MAP NUMBER 20209C0160E, EFFECTIVE DATE FEBRUARY 5, 2014.

ZONING INFORMATION:

UNIFIED GOVERNMENT OF WYANDOTTE COUNTY/KANSAS CITY, KANSAS
701 N. 7TH ST., SUITE 423
KANSAS CITY, KS 66101
(913)573-5750

NO ZONING REPORT OR LETTER WAS PROVIDED TO THE SURVEYOR

THE SUBJECT PROPERTY IS CURRENTLY ZONED AS "CP-2" (PLANNED GENERAL BUSINESS DISTRICT)
MAXIMUM BUILDING HEIGHT: 12 STORIES
FRONT YARD: 25 FEET
SIDE YARD, INTERIOR: NO SETBACK IS REQUIRED EXCEPT WHERE A PROPERTY IN THIS DISTRICT ABUTS A ZONING DISTRICT WHEREIN A SETBACK IS REQUIRED, THEN THAT SAME SETBACK SHALL BE PROVIDED ON THAT PROPERTY IN THIS DISTRICT
SIDE YARD, CORNER: 25 FEET
REAR YARD: NO SETBACK IS REQUIRED EXCEPT WHERE A PROPERTY IN THIS DISTRICT ABUTS A ZONING DISTRICT WHEREIN A SETBACK IS REQUIRED, THEN A SETBACK OF TEN FEET SHALL BE PROVIDED ON THAT PROPERTY IN THIS DISTRICT
PARKING AND OTHER PAVED AREAS: NOT LESS THAN SIX FEET FROM ANY PROPERTY LINE AND NOT LESS THAN TEN FEET FROM ANY STREET RIGHT-OF-WAY LINE
PARKING RATIO: 4 SPACES PER 1,000 SQUARE FEET OF FLOOR AREA IN THE BUILDING

NOTES:
1. THERE ARE 53 REGULAR PARKING STALLS AND 3 ADA ACCESSIBLE PARKING STALLS.
2. SUBDIVISION OR RE-PLATTING IS NOT NECESSARY TO CONVEY THE SUBJECT PROPERTY.

olsson
302 S. 4th Street, Suite 110
Manhattan, Kansas 66502
TEL 785.539.6900
www.olsson.com

REV. NO.	DATE	REVISIONS DESCRIPTION
		REVISIONS

ALTA/NSPS LAND TITLE SURVEY

McDONALD'S RESTAURANT
645 KANSAS AVENUE

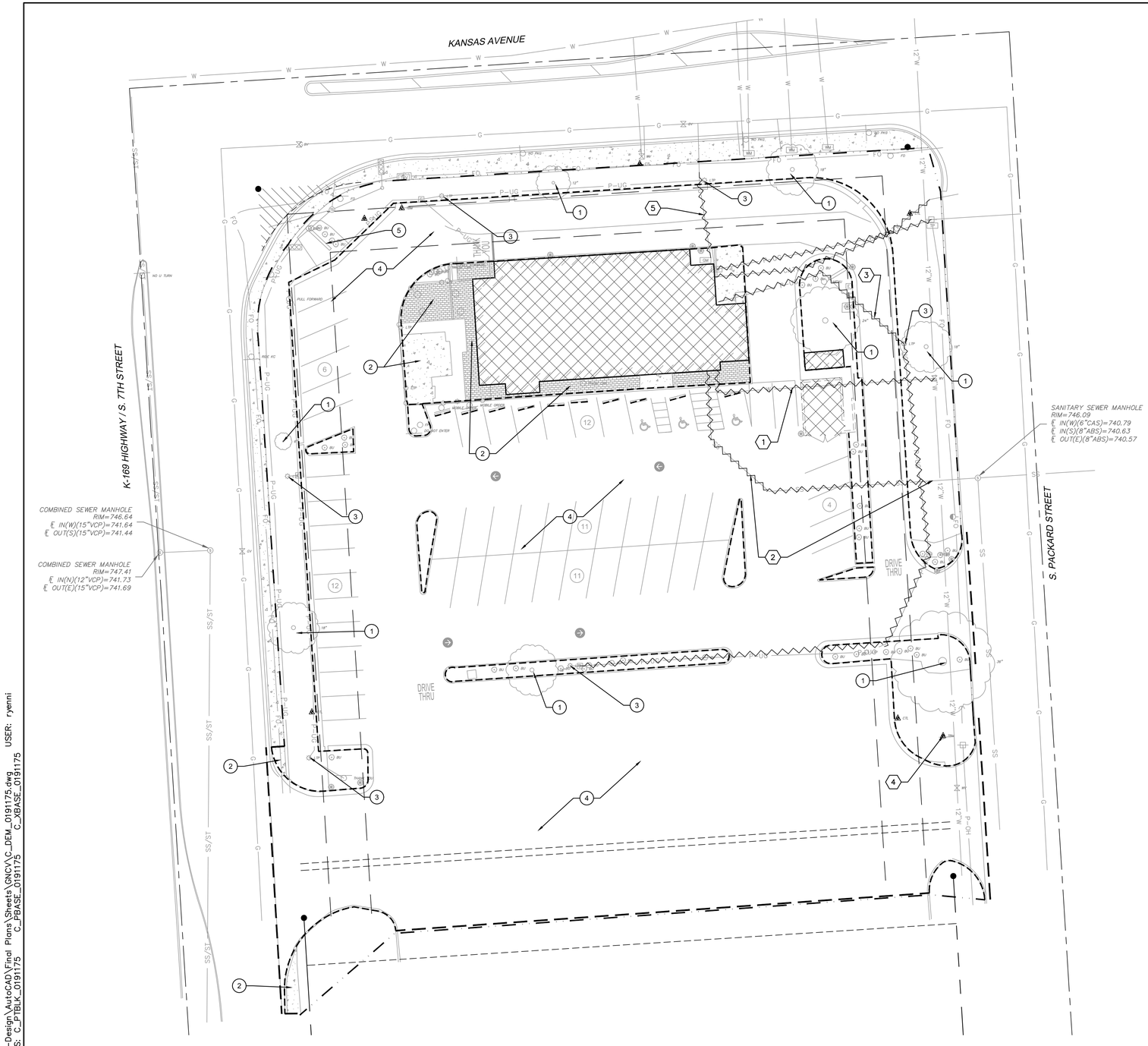
KANSAS CITY, WYANDOTTE COUNTY, KANSAS

2020

drawn by: AJK
checked by:
approved by: GCW
QA/QC by: GCW
project no.: 019-1175
drawing no.: V_ALT_0191175
date: 02/19/20

SHEET
2 of 2

DWG: F:\2019\1001-1500\019-1175\40-Design\Survey\SRVY\Sheets\V_ALT_0191175.dwg USER: dkruse
DATE: Feb 19, 2020 3:09pm XREFS:



DEMOLITION KEYNOTE LEGEND

1. REMOVE ALL TREES, SHRUBBERY AND LANDSCAPING
2. REMOVE SIDEWALK
3. REMOVE SITE LIGHT POLES AND FOUNDATIONS, FILL FOUNDATION VOID WITH FLOWABLE FILL
4. CONCRETE PAVEMENT REMOVAL, TYP. THROUGHOUT SITE
5. REMOVE MONUMENT SIGN

UTILITY KEYNOTE LEGEND

1. REMOVE WATER SERVICE LINE TO CONNECTION WITH MAIN
2. REMOVE SANITARY SEWER TO NEW CONNECTION POINT. SEE UTILITY PLAN
3. REMOVE SECONDARY WIRING, TYP
4. PROTECT FIRE HYDRANT
5. COORDINATE DEMOLITION OF EXISTING SERVICE LINE WITH GAS PROVIDER. CONTACT GAS COMPANY DURING PLANNING PHASE TO COORDINATE SHUTOFF AND FINAL SERVICE LINE AND TAP LOCATION

EXISTING CONDITIONS NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE RESTORATION OF THE RIGHT-OF-WAY AND FOR DAMAGED IMPROVEMENTS. DAMAGED IMPROVEMENTS SHALL BE REPAIRED TO THE CITY'S AND OWNER'S SATISFACTION. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE TO REPAIR ALL EXISTING DISTURBED AREAS DURING GRADING ACTIVITIES TO ORIGINAL OR BETTER CONDITION.
2. THE CONTRACTOR SHALL CONTACT THE UNDERGROUND UTILITY NOTIFICATION CENTER FOR THE STATE THAT THE WORK IS BEING PERFORMED AND HAVE ALL THE UTILITIES MARKED AND PROVIDE NOTIFICATION OF THE COMMENCEMENT OF WORK.
3. ALL JOINTS WHERE NEW PAVEMENT ADJOINS EXISTING PAVEMENT SHALL BE SAW CUT, TO INSURE A STRAIGHT CLEAN LINE, OR WILL BE CARRIED TO THE NEXT JOINT WHEN THE EXISTING PANEL WILL BE LESS THAN HALF ORIGINAL WIDTH.

DEMOLITION PLAN NOTES

1. PRIOR TO ANY DEMOLITION EROSION CONTROL MEASURES AND CONSTRUCTION FENCING SHALL BE INSTALLED.
1. DEMO SITE PER LIMITS SHOWN & REMOVE ALL LANDSCAPING, TREES POSTS, CONCRETE, ASPHALT, BOLLARDS, BENCHES, TABLES, LIGHT POLES AND SECONDARY WIRING. EXISTING UTILITIES, INCLUDING THOSE NOT SHOWN, IN THE DEMO AREA SHALL BE REMOVED TO THEIR CONNECTION WITH THE MAIN UNLESS OTHERWISE SPECIFIED.
2. THE CONTRACTOR SHALL COORDINATE ALL ITEMS TO BE SALVAGED AND/OR PROTECTED WITH SITE OWNER AND UTILITY OWNERS. ITEMS TO REMAIN SHALL BE: WATER METER AS SPECIFIED BY LANDSCAPE CONTRACTOR (IF EXISTING WATER METERS ARE NOT USED FOR IRRIGATION, THEY SHALL BE REMOVED UG SPECIFICATIONS).
3. THE CONTRACTOR SHALL COORDINATE WITH THE ADJACENT PROPERTY OWNER, UTILITY OWNER, AND McDONALD'S ACM, AND MINIMIZE THE LENGTH OF TIME THE TEMPORARY UTILITY IS IN USE TO THE GREATEST EXTENT POSSIBLE. CONTRACTOR IS RESPONSIBLE FOR COORDINATING PHASING OF DEMOLITION, TEMPORARY UTILITY SERVICE, AND NEW UTILITY CONSTRUCTION WITH ALL PROPERTY OWNERS AND UTILITY SERVICE COMPANIES.
4. SECONDARY WIRING, SERVICES, IRRIGATION AND OTHER MINOR SITE IMPROVEMENTS THAT ARE NOT TO REMAIN IN SERVICE ARE TO BE DEMOLISHED AND REMOVED.
5. ALL PAVEMENT SAWCUTS ARE TO BE MADE IN STRAIGHT, CLEAN LINES LEAVING A CLEAN AND STABLE EDGE AT FULL PAVEMENT DEPTH.
6. ALL PCC PAVEMENT AND ALL CURB SHALL BE REMOVED TO NEAREST JOINT.
7. ALL MATERIALS REMOVED FROM THE SITE SHALL BE DISPOSED OF IN STRICT CONFORMANCE WITH LOCAL CODES AND ORDINANCES.
8. ALL TREE REMOVAL SHALL INCLUDE STUMPS AND ROOTS. DEPRESSIONS CREATED SHALL BE FILLED TO PROVIDE DRAINAGE.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF UNIFIED GOVERNMENT AND PUBLIC WORKS DEPARTMENT PERMITS. INCLUDING, BUT NOT LIMITED TO: RIGHT OF WAY, HAULING, LAND DISTURBANCE, DEMOLITION, AND BUILDING.
10. ACCESS TO THE BUSINESS SHALL BE MAINTAINED THROUGH ONGOING CONSTRUCTION. SEE PHASING PLAN.

EXISTING LEGEND

- BOLLARD
- SIGN
- SPEAKER BOX
- BU BUSH
- CONIFEROUS TREE
- DECIDUOUS TREE
- E ELECTRIC BOX
- E ELECTRIC MANHOLE
- EM ELECTRIC METER
- DEADMAN ANCHOR
- LIGHT POLE
- POWER POLE
- FIRE HYDRANT
- IRR IRRIGATION VALVE
- WV WATER VALVE
- WM WATER METER
- MONITOR WELL
- GM GAS METER
- GRATE INLET
- D STORM SEWER MANHOLE
- S SANITARY SEWER MANHOLE
- SEWER CLEANOUT
- TP TELEPHONE PEDESTAL
- W WATER LINE
- TEL UNDERGROUND TELEPHONE LINE
- G GAS LINE
- SS SANITARY SEWER LINE
- P-OH OVERHEAD POWER LINE
- P-UG UNDERGROUND POWER LINE
- CATV UNDERGROUND CABLE TV
- FO FIBER OPTIC LINE

DEMOLITION LEGEND

- CONCRETE PAVEMENT REMOVAL
- BUILDING REMOVAL
- UTILITY REMOVAL
- REMOVE CURB
- SAWCUT FULL DEPTH
- DEMOLITION LIMITS

N

0' 10' 20' 40'
SCALE IN FEET

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1	02.21.2020	CONSTRUCTION DOCUMENTS — RMY
	01.22.2020	

RYAN M. YENNI LICENSED PROFESSIONAL ENGINEER 27378 01-21-20 KANSAS

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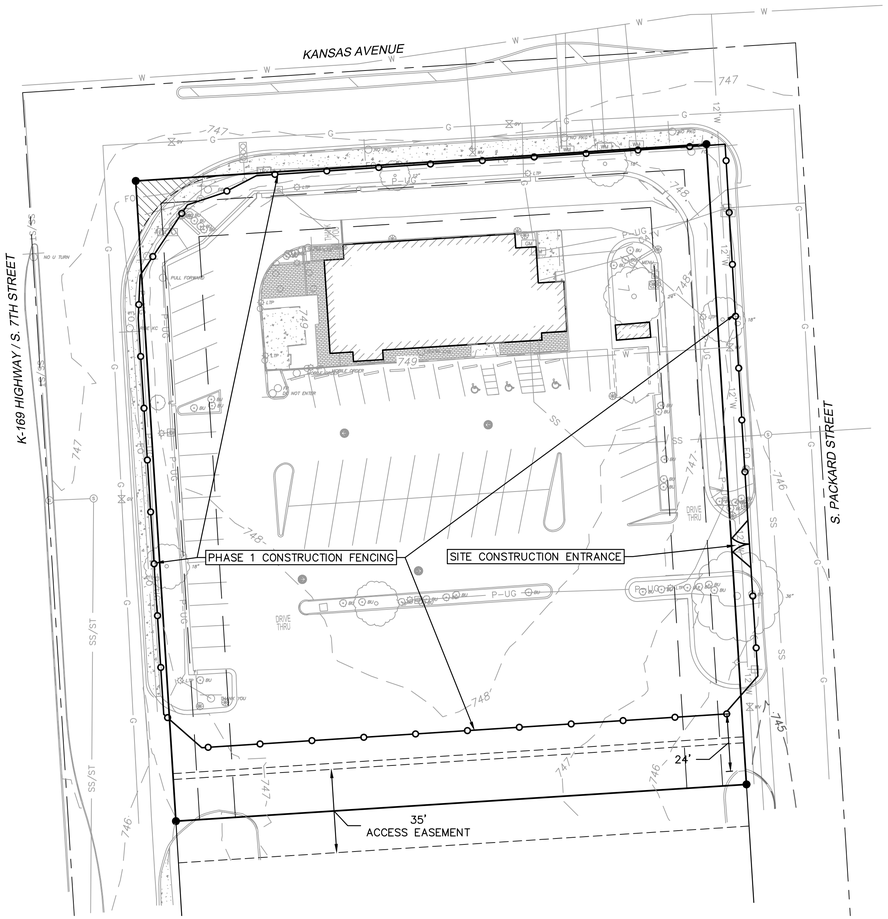
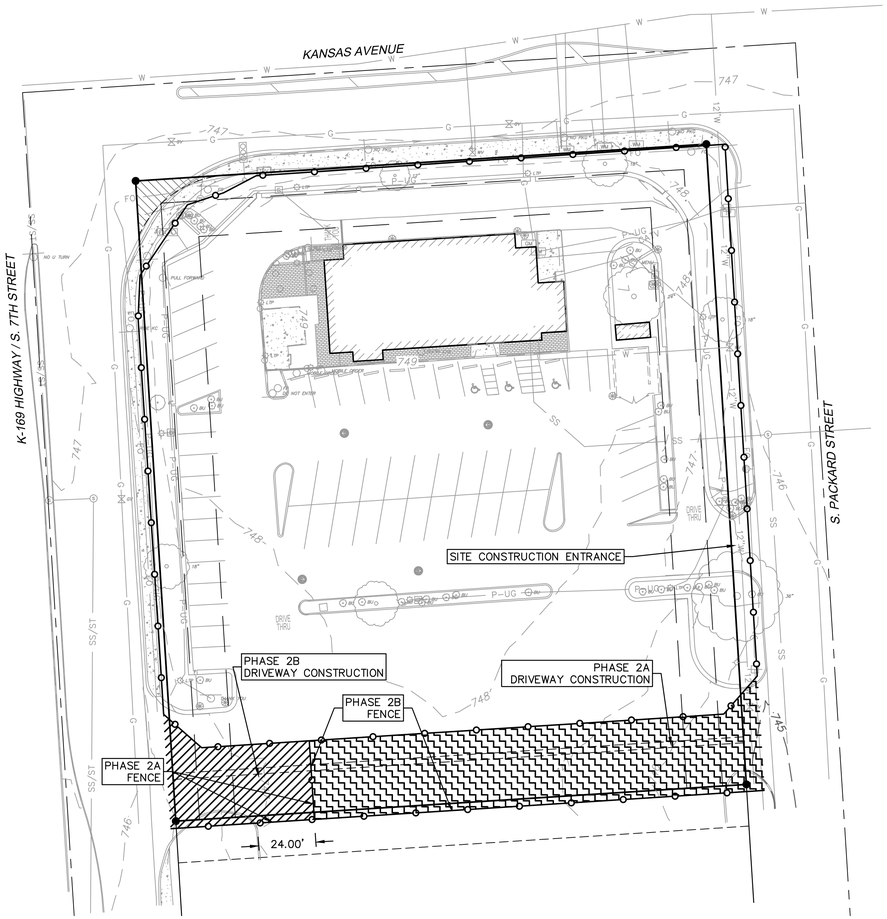
RMY	MAP	1/22/2020
STD. ISSUE DATE 1/22/2020		

TITLE: DEMOLITION PLAN
DESCRIPTION: 2018 PROTOTYPE 45'X97' + 10 EXPANSION
SITE ID: 015-0071
SITE ADDRESS: 605 S 7TH ST, KANSAS CITY, KS 66105
015-0071.00.0
SHEET NO. C2.0



PHASE 1: SITE CONSTRUCTION



PHASE 2A&2B: DRIVEWAY CONSTRUCTION

PHASING NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FENCING/SITE ACCESS DURING CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR APPROVAL FROM APPLICABLE GOVERNING AGENCIES FOR CHANGES TO PHASING PLAN.
2. PHASE 1 SHALL CONSIST OF ALL CONSTRUCTION ACTIVITIES WITHIN THE SHOWN AREA. CONTRACTOR SHALL MAINTAIN ACCESS THROUGH THE ACCESS EASEMENT DURING SITE DEMOLITION AND CONSTRUCTION.
3. CONTRACTOR SHALL USE LOCAL FORECAST TO SCHEDULE DRIVEWAY DEMOLITION AND CONSTRUCTION SO THAT DEMOLITION AND CONSTRUCTION CAN BE PERFORMED CONTINUOUSLY.
4. ALL DEMOLITION AND CONSTRUCTION WITHIN PHASE 2A AND 2B SHALL BE CONTINUOUS UNTIL AREA IS OPEN TO TRAFFIC. CONSTRUCTION ON 2B SHALL NOT START UNTIL 2A IS OPEN TO TRAFFIC.

1 NEW SHEET

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REVIEWED BY	MAP
DATE ISSUED	1/22/2020

TITLE: CONSTRUCTION PHASING

DESCRIPTION: 2018 PROTOTYPE 45'X97' + 10 EXPANSION

SITE ID: 015-0071

SITE ADDRESS: 605 S 7TH ST, KANSAS CITY, KS 66105

SHEET NO. 015-0071.00.0 C2.1

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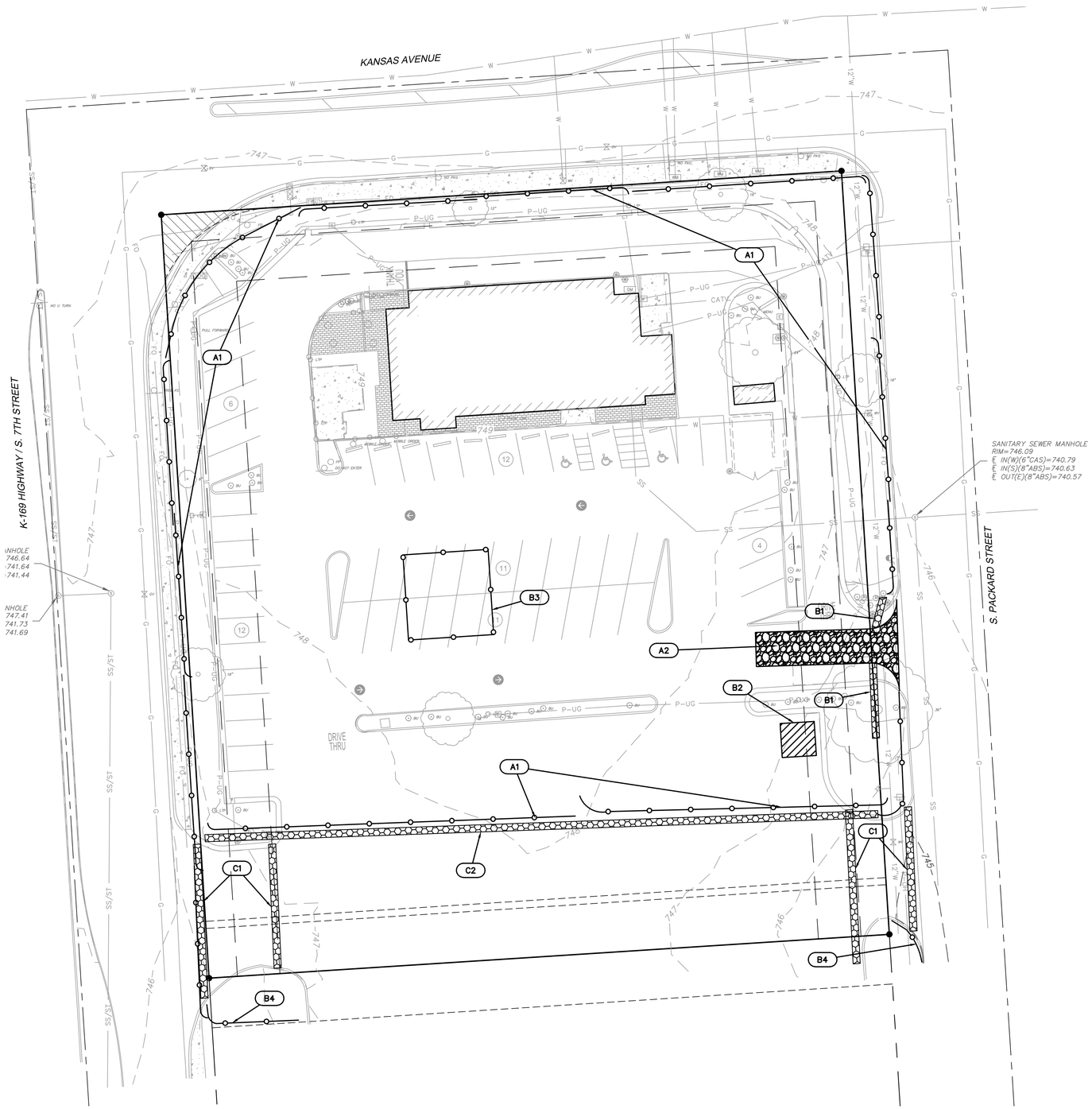

⚠ MULTIPLE REVISIONS TO EROSION CONTROL PLAN AND SCHEDULE

EROSION AND SEDIMENT CONTROL STAGING CHART

PHASE	PROJECT STAGE	EROSION REFERENCE NO.	DESCRIPTION	REMOVE AFTER STAGE	NOTES
A	PRIOR TO DEMOLITION	A1	SILT FENCE	C	INSTALL AS INDICATED ON PLANS AT EXTENTS OF GRAING AREA, PRIOR TO SOIL DISTURBANCE.
		A2	CONSTRUCTION ENTRANCE	C	INSTALL AS INDICATED ON PLANS.
B	SITE DEMOLITION AND CONSTRUCITON	B1	COMPOST SOCK	C	INSTALL DOWNSTREAM OF DISTURBANCE ON HARD PAVED AREAS.
		B2	CONCRETE WASHOUT	C	INSTALL AS INDICATED ON PLANS.
		B3	SOIL STOCKPILE AREA	C	SURROUND STOCKPILE WITH SILT FENCE.
		B4	SILT FENCE	C	INSTALL DOWNSTREAM OF DISTUBED AREAS.
		B5	TEMPORARY SEEDING	C	AS REQUIRED. SEED IN AREAS WHERE ACTIVITY WILL CEASE FOR MORE THAN 14 DAYS.
C	DRIVEWAY DEMOLITION AND CONSTRUCTION	C1	COMPOST SOCK	D	INSTALL DOWNSTREAM OF DISTURBANCE ON HARD PAVED AREAS. DURRING CONSTRUCTION ACTIVITY IN ACCESS EASEMENT.
		C2	COMPOST SOCK	D	INSTALL AFTER ACCESS EASEMENT IS OPENED TO TRAFFIC IF DISTURBED AREA EXSITS ON SITE.
D	FINAL STABILIZATION	C1	FINAL STABILIZATION	N/A	SEED/SOD PER LANDACAPE PLAN.

GENERAL EROSION CONTROL NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE AND REPAIR OF ALL EROSION & SEDIMENT CONTROL MEASURES AND PRACTICES THROUGHOUT THE PROJECT AND ON THE ADJACENT PUBLIC AND PRIVATE STREETS. THE CONTRACTOR SHALL INSPECT THE EROSION CONTROL MEASURES AT A MINIMUM OF ONCE EVERY TWO WEEKS AND WITH THE EXCEPTION OF SATURDAYS, SUNDAYS, AND ESTABLISHED FEDERAL HOLIDAYS BY THE END OF THE NEXT DAY FOLLOWING A RAINFALL EVENT OF 0.50" OR GREATER AND KEEP THE DEVICES IN OPERABLE CONDITION AT ALL TIMES.
2. FAILURE TO FLOW THE KANSAS WATER POLLUTION CONTROL GENERAL PERMIT AND AUTHORIZATION TO DISCHARGE WILL SUBJECT THE CONTRACTORS TO THE PENALTIES PROVIDED THEREIN. ANY AND ALL FINES ASSOCIATED WITH VIOLATIONS WILL BE THE CONTRACTOR'S RESPONSIBILITY.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESOLVING ANY COMPLAINTS DUE TO DAMAGES OCCURRING ADJACENT TO, OR DOWNSTREAM FROM, PROPERTY BY SEDIMENT AS A RESULT OF INADEQUATE EROSION CONTROL PRACTICES.
4. GOOD HOUSEKEEPING PRACTICES SHALL BE MAINTAINED ON SITE AT ALL TIMES.
5. EROSION CONTROL IS THE CONTRACTOR'S RESPONSIBILITY. THIS PLAN SHOULD BE USED AS A GUIDE AND REPRESENTS THE MINIMUM EROSION CONTROL DEVICES REQUIRED. THE CONTRACTOR SHALL PROVIDE ANY ADDITIONAL EROSION CONTROL MEASURES TO THOSE LISTED AND/OR SHOWN AND ENSURE THAT SILT WILL NOT LEAVE THE PROJECT LIMITS.
6. ALL EROSION CONTROL DEVICES SHALL CONFORM TO THE APPLICABLE SECTIONS OF THE STANDARD SPECIFICATIONS AND DESIGN CRITERIA OF THE GOVERNING BODY AND THE STATE DEPARTMENT OF HEALTH & ENVIRONMENT, WATER POLLUTION CONTROL DIVISION, MOST CURRENT EDITIONS.
7. AT ANY TIME DURING CONSTRUCTION THE GOVERNING AUTHORITY MAY REQUIRE ADDITIONAL EROSION/SILTATION CONTROL MEASURES TO BE INSTALLED IN ORDER TO ADDRESS PROBLEM SITUATIONS OBSERVED ON THE SITE. WHEN REQUIRED SUCH MEASURES SHALL BE INSTALLED WITHIN 48 HOURS OF THE CITY ENGINEER'S VERBAL OR WRITTEN ORDER.

PRE-CONSTRUCTION PHASE NOTES:

ALL EROSION CONTROL DEVICES SHOWN IN THE PRE-CONSTRUCTION PHASE MUST BE IN PLACE PRIOR TO DISTURBING ONSITE SOIL. DISTURBANCE NECESSARY TO PRE-CONSTRUCTION EROSION CONTROL SHALL BE MINIMAL AND ONLY THAT REQUIRED FOR INSTALLATION. COORDINATE NECESSARY CLEARING WITH LOCAL WEATHER FORECAST SO THAT CLEARING AND PLACEMENT TAKE PLACE DURING A DRY PERIOD.

1. CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT ANY POINT WHERE TRAFFIC WILL BE ENTERING OR LEAVING THE SITE.
2. INSTALL SILT FENCE AT THE DOWN HILL GRADING EXTENTS.
3. INSTALL INLET PROTECTION AT INLETS DOWNHILL OF CONSTRUCTION ACTIVITIES.
4. INSTALL CHECK DAMS AND ROCK STABILIZATION WHERE INDICATED ON PLANS.
5. INSTALL STRUCTURAL EROSION CONTROL DEVICES AS INDICATED ON PLANS.

DEMOLITION-CONSTRUCTION PHASE NOTES:

EROSION CONTROL DEVICES INSTALLED IN THE CONSTRUCTION PHASE SHALL BE INSTALLED BY THE CONTRACTOR ACCORDING TO THE CONSTRUCTION SCHEDULE. THE CONTRACTOR MAY MODIFY PLANS OR CONSTRUCTION SEQUENCE; ANY SUCH MODIFICATIONS SHALL REQUIRE THE APPROVAL OF THE PERMITTING AUTHORITY.

1. AREAS WHICH WILL BE INACTIVE FOR 14 DAYS SHALL BE TEMPORARILY SEEDED WITH ANNUAL FAST GROWING VEGETATION. STRAW MULCH SHALL BE APPLIED AND MAINTAINED UNTIL VEGETATION IS ESTABLISHED.
   A. STEEP SLOPES (ABOVE 15%) SHALL BE SEEDED WITH AN EROSION CONTROL BLANKET INSTALLED IN PLACE OF MULCH.
2. IF AT THE END OF DAILY OPERATION THE LOCAL WEATHER FORECAST CALLS FOR RAIN WITHIN 24 HOURS OR IF GRADING OPERATIONS WILL SUSPENDED FOR LONGER THEN 24 HOURS, THEN INSTALL A TEMPORARY TOP OF SLOPE DIVERSION AT ALL STEEP SLOPES.
3. INSTALL CHECK DAMS AND STABILIZATION STABILIZATION MEASURES IN NEWLY CONSTRUCTED CHANNELS.
4. INSTALL INTERMITTENT SILT FENCE DOWN HILL OF LOCALIZED ON SITE GRADING.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF DUST AND DIRT RISING AND SCATTERING IN THE AIR DURING CONSTRUCTION AND SHALL PROVIDE WATER SPRINKLING OR OTHER SUITABLE METHODS OF CONTROL.
6. MUD AND DEBRIS SHALL BE CLEANED FROM THE STREET AT THE CONCLUSION OF EACH WORKING DAY.
7. KEEP WEEDS AND GRASSES IN CONTROL EVERY 14 DAYS WITHIN THE PROJECT SITE AND ALONG ALL SIDES OF PROJECT FENCE AND SILT FENCE.
8. INSPECT THE EROSION CONTROL MEASURES AT A MINIMUM OF ONCE EVERY TWO WEEKS AND WITH THE EXCEPTION OF SATURDAYS, SUNDAYS, AND ESTABLISHED FEDERAL HOLIDAYS BY THE END OF THE NEXT DAY FOLLOWING A RAINFALL EVENT OF 0.50" OR GREATER AND KEEP THE DEVICES IN OPERABLE CONDITION AT ALL TIMES.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING THE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES ONLY WHEN AREAS HAVE BEEN STABILIZED WITH A HEALTHY STAND OF VEGETATION.

FINAL STABILIZATION PHASE NOTES:

SEED AND/OR LANDSCAPE PER LANDSCAPE PLANS FOR FINAL STABILIZATION. DOWNHILL PERIMETER CONTROLS AND INLET PROTECTION ARE NOT TO BE REMOVED UNTIL FINAL STABILIZATION IS PLACED AND VEGETATIVE COVER IS ESTABLISHED OVER THE ENTIRE SITE.

1. WITHIN 14 DAYS AFTER COMPLETION OF FINISHED GRADING AND OTHER RELATED CONSTRUCTION ACTIVITIES, ALL DISTURBED AREAS WITHIN THE PROJECT SITE SHALL BE PERMANENTLY STABILIZED.
2. THE CONTRACTOR SHALL ENSURE THAT ALL DRAINAGE STRUCTURES, FLUMES, PIPES, ETC. ARE CLEANED OUT AND WORKING PROPERLY AT TIME OF ACCEPTANCE.
3. THE CONTRACTOR SHALL PROVIDE CLEANING OR WASHING OF ACCESS ROUTE AT CONCLUSION OF THE PROJECT.

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SHEET NO. C3.0

TITLE EROSION CONTROL PLAN

DESCRIPTION 2018 PROTOTYPE 45'X97' + 10 EXPANSION

SITE ID 015-0071

SITE ADDRESS 605 S 7TH ST, KANSAS CITY, KS 66105

015-0071.00.0

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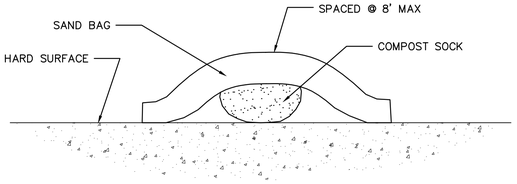
DATE: Feb 20, 2020 3.45pm XREFS: C_XBASE_0191175 C_PTBLK_0191175

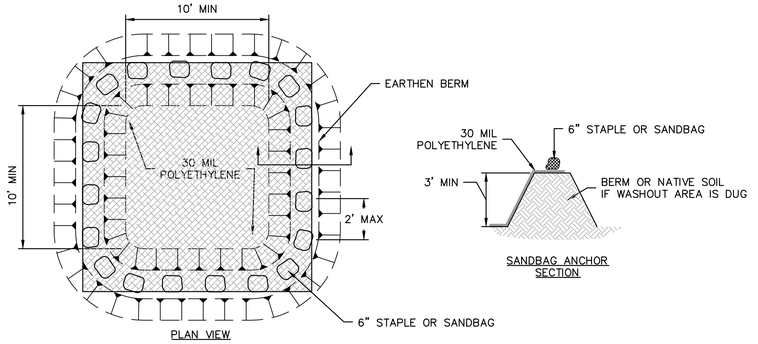
1 C3.1 SILT FENCE
SEE UG DETAIL 1400-E



COMPOST SOCK ON SURFACE: ADDITIONAL TO UG DETAIL 1400-D

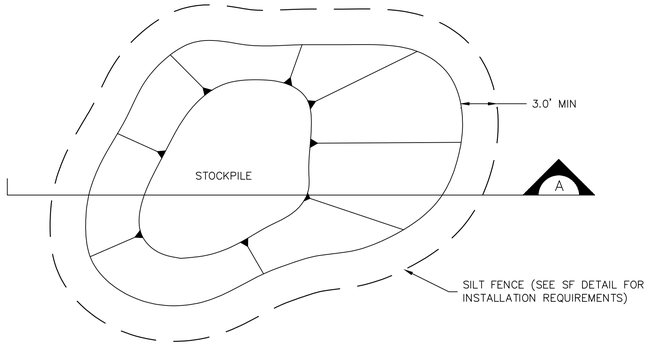
2 C3.1 COMPOST SOCK
SEE UG DETAIL 1400-D

3 C3.1 CONSTRUCITON ENTRANCE
SEE UG DETAIL 1400-A

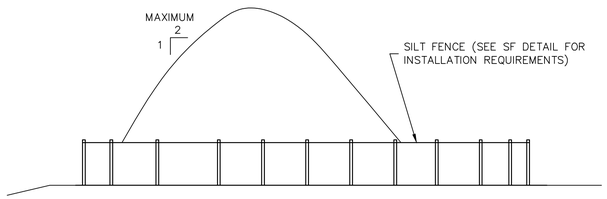


NOTES:
FACILITY SHALL BE CLEANED OR RECONSTRUCTED WITH THE HARDENED CONCRETE AND/OR SLURRY IS 1'-6" IN DEPTH.

4 C3.1 CONCRETE WASHOUT
SCALE: NOT TO SCALE



STOCKPILE PROTECTION PLAN



SECTION A

URBAN DRAINAGE AND FLOOD CONTROL DISTRICT
URBAN STORM DRAINAGE CRITERIA MANUAL VOLUME 3

STOCKPILE PROTECTION INSTALLATION NOTES

1. SEE PLAN FOR:
   -LOCATION OF STOCKPILES
   -TYPE OF STOCKPILE PROTECTION

2. INSTALL PERIMETER CONTROLS IN ACCORDANCE WITH THEIR RESPECTIVE DESIGN DETAILS. SILT FENCE IS SHOWN IN THE STOCKPILE PROTECTION DETAILS; HOWEVER, OTHER TYPES OF PERIMETER CONTROLS INCLUDING SEDIMENTS CONTROL LOGS OR ROCK SOCKS MAY BE SUITABLE IN SOME CIRCUMSTANCES. CONSIDERATIONS FOR DETERMINING THE APPROPRIATE TYPE OF PERIMETER CONTROL FOR A STOCKPILE INCLUDE WHETHER THE STOCKPILE IS LOCATED ON A PERVIOUS OR IMPERVIOUS SURFACE, THE RELATIVE HEIGHTS OF THE PERIMETER CONTROL AND STOCKPILE, THE ABILITY OF THE PERIMETER CONTROL TO CONTAIN THE STOCKPILE WITHOUT FAILING IN THE EVENT THAT MATERIAL FROM THE STOCKPILE SHIFTS OR SLUMPS AGAINST THE PERIMETER, AND OTHER FACTORS.

3. STABILIZE THE STOCKPILE SURFACE WITH SURFACE ROUGHENING, TEMPORARY SEEDING AND MULCHING, EROSION CONTROL BLANKETS, OR SOIL BINDERS. SOILS STOCKPILED FOR AN EXTENDED PERIOD (TYPICALLY FOR MORE THAN 60 DAYS) SHOULD BE SEEDED AND MULCHED WITH A TEMPORARY GRASS COVER ONCE THE STOCKPILE IS PLACED (TYPICALLY WITHIN 14 DAYS). USE OF MULCH ONLY OR A SOIL BINDER IS ACCEPTABLE IF THE STOCKPILE WILL BE IN PLACE FOR A MORE LIMITED TIME PERIOD (TYPICALLY 30-60 DAYS).

4. FOR TEMPORARY STOCKPILES ON THE INTERIOR PORTION OF A CONSTRUCTION SITE, WHERE OTHER DOWNGRADIENT CONTROLS, INCLUDING PERIMETER CONTROL, ARE IN PLACE, STOCKPILE PERIMETER CONTROLS MAY NOT BE REQUIRED.

STOCKPILE PROTECTION MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INPSECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

STOCKPILE PROTECTION MAINTENANCE NOTES

4. IF PERIMETER PROTECTION MUST BE MOVED TO ACCESS SOIL STOCKPILE, REPLACE PERIMETER CONTROL BY THE END OF THE WORKDAY.

5. STOCKPILE PERIMETER CONTROLS CAN BE REMOVED ONCE ALL THE MATERIAL FROM THE STOCKPILE HAS BEEN USED.

(DETAILS ADAPTED FROM PARKER, COLORADO)

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

5 C3.1 SOIL STOCKPILE
SCALE: NOT TO SCALE

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TITLE: EROSION CONTROL DETAIL
DESCRIPTION: 2018 PROTOTYPE 45X97' + 10 EXPANSION
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015-0071.00.0
SHEET NO. C3.1

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DATE: Feb 20, 2020 3:45pm XREFS: C_XBASE_0191175 C_PTBLK_0191175

PAVING LEGEND

- HEAVY DUTY PAVEMENT SECTION (CONCRETE ONLY)
- LIGHT DUTY PAVEMENT SECTION (CONCRETE ONLY)
- HEAVY DUTY PAVEMENT SECTION
- LIGHT DUTY PAVEMENT SECTION
- DRIVE ENTRANCE PAVEMENT
- TRASH ENCLOSURE PAVEMENT

MARKING LEGEND

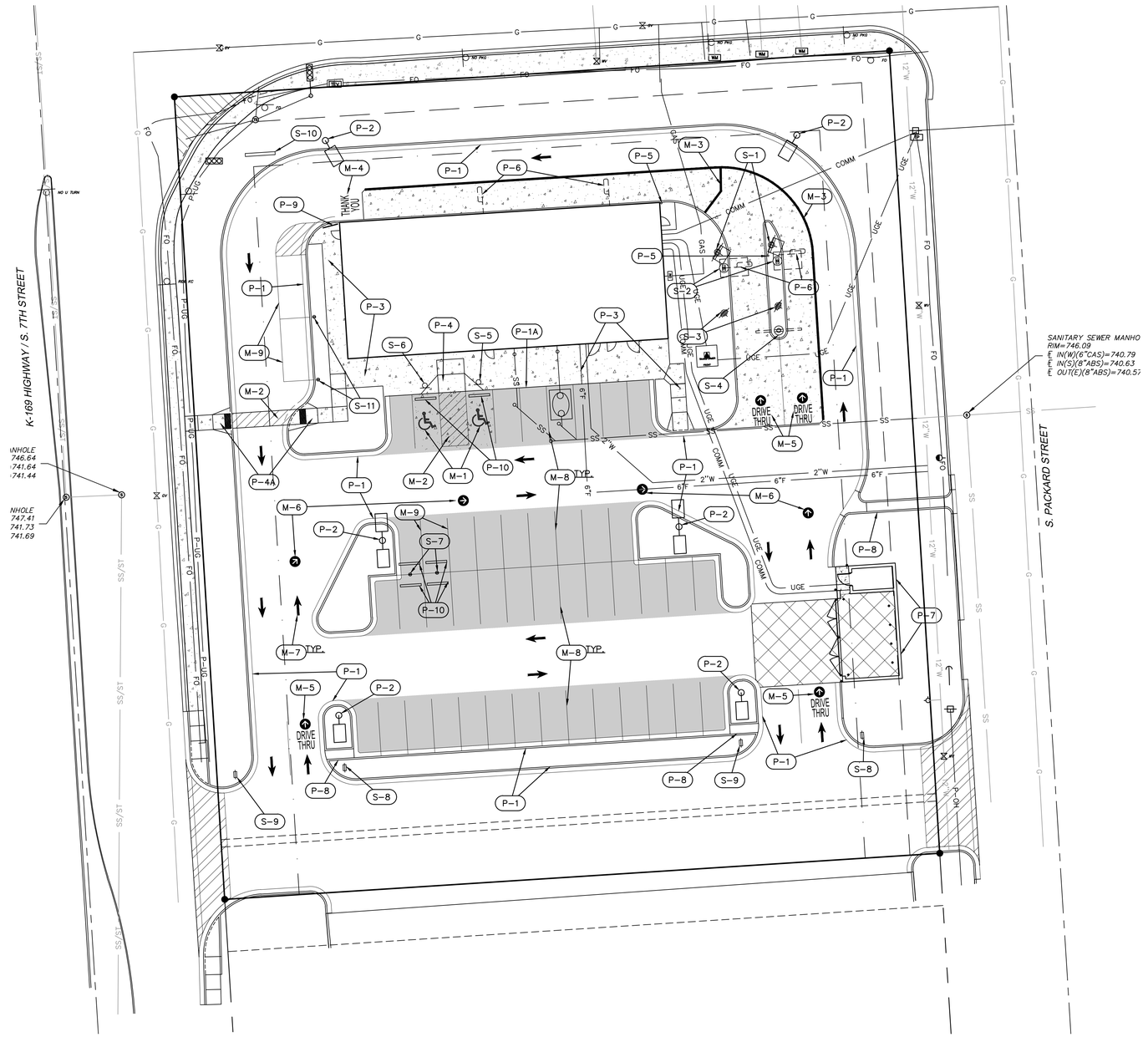
- M-1 ADA ACCESSIBLE STALL WITH WHITE SYMBOL PER ADA REQUIREMENTS
- M-2 HANDICAP ACCESSIBLE AISLE–4" WHITE STRIPES @ 45', 2' O.C.
- M-3 6" YELLOW STRIPE, DRIVE THRU BOUNDARY AND MERGE POINT
- M-4 "THANK YOU" PAVEMENT MARKING PLACED 40' FROM ℄ OF PICK UP WINDOW
- M-5 "DRIVE–THRU" w/ARROW PAVEMENT MARKING
- M-6 DRIVE THRU ARROW ONLY PAVEMENT MARKING
- M-7 PAVEMENT DIRECTION ARROWS, TYP.
- M-8 4" WHITE PARKING STALL STRIPING, TYP
- M-9 8" YELLOW PARKING STALL STRIPING, PULL FORWARD AND MOBILE ORDER STALLS

SIGN LEGEND

- S-1 DIGITAL MENU BOARD
- S-2 ORDER HERE DRIVE–THRU CANOPY
- S-3 DIGITAL PRE–BROWSE BOARD
- S-4 McDONALD'S DOUBLE ARM GATEWAY WITH ANY LANE ANY TIME SIGN
- S-5 POLE MOUNTED MUTCD SIGN R7–8 –HANDICAP PARKING, FACE OF SIGN 2' BEHIND CURB
- S-6 POLE MOUNTED MUTCD SIGN R7–8 & R7–8a – ADA VAN ACCESSIBLE HANDICAP PARKING, FACE OF SIGN 2' BEHIND CURB
- S-7 McDONLAD'S MOBILE ORDER BOLLARD AND SIGN
- S-8 McDONALD'S DIRECTIONAL SIGN: ENTRANCE
- S-9 McDONALD'S DIRECTIONAL SIGN: EXIT
- S-10 MONUMENT SIGN, SHOWN FOR LOCATION REFERENCE, DESIGN AND PERMITTING BY OTHERS
- S-11 McDONALD'S PULL FORWARD SIGN

SITE LEGEND

- P-1 CONCRETE CURB & GUTTER
- P-1A 5" TURNDOWN CURB, INTEGRAL WITH SIDEWALK
- P-2 LIGHT POLE
- P-3 CONCRETE SIDEWALK
- P-4 ADA RAMP
- P-4A ADA RAMP W/ 2' TRUNCATED DOME STRIP
- P-5 BOLLARD
- P-6 LOOP DETECTOR, RE DETAIL & MEP
- P-7 TRASH ENCLOSURE/STORAGE SHED, RE ARCH
- P-8 DRAINAGE FLUME
- P-9 5' LONG GUARDRAIL, SEE ARCH FOR DETAIL
- P-10 WHEEL STOP



SITE PLAN NOTES

1. ALL PAVEMENT DIMENSIONS ARE TO FACE OF CURB, OR EDGE OF PAVEMENT WHERE NO CURB IS PRESENT, UNLESS OTHERWISE NOTED. DIMENSIONED TIES BETWEEN PROPERTY LINES AND BUILDING FACES OR PAVEMENT ARE AS INDICATED. THE CONTRACTOR IS RESPONSIBLE FOR MAKING ANY ADJUSTMENTS NECESSARY FOR FOUNDATIONS, BEDDING EXTENSIONS, SURCHARGING, ETC.
2. INSTALLED PAVEMENT SHALL MATCH EXISTING PAVEMENT IN GRADE AND ALIGNMENT TO PROVIDE SMOOTH SURFACE TRANSITIONS. INSTALLED CURB & GUTTER SHALL MATCH EXISTING CURB & GUTTER IN SIZE AND TYPE OR CONTRACTOR SHALL INCLUDE A TRANSITION FROM NEW TO EXISTING OF NO LESS THAN 5' AS MEASURED ALONG BACK OF CURB.
4. ALL PCC PAVING SHALL BE IN CONFORMANCE WITH LOCAL CODES AND ORDINANCES AND THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT. WHERE NOT COVERED BY THE ABOVE, PCC PAVING SHALL BE IN CONFORMANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF KDOT.
5. CONCRETE PAVEMENT JOINTS SHALL BE CONSTRUCTED AS FOLLOWS (REFER TO HARDSCAPE PLANS FOR SPECIFIC TREATMENT OF THESE AREAS):
   A. CONTROL JOINTS SPACED AS SHOWN IN THESE PLANS OR AT INTERVALS NOT GREATER THAN 1.5x PANEL WIDTH OR 12 FEET (WHICHEVER IS SMALLER).
   B. CONTROL JOINTS SHALL BE TOOLED OR SAWCUT TO ¼ THE SLAB THICKNESS. LOCAL STANDARDS AND SPECIFICATIONS SHALL TAKE PRECEDENCE WHERE MORE STRICT THAN THOSE LISTED HERE.
   C. CONSTRUCTION JOINTS PLACED AT THE END OF EACH POUR AND WHEN PAVING OPERATIONS ARE SUSPENDED FOR 30 MINUTES OR MORE.
   D. ISOLATION JOINTS PLACED WHERE THE PAVEMENT ABUTS THE BUILDING, DRAINAGE STRUCTURES AND OTHER FIXED STRUCTURES, CONSTRUCTED WITH A 1/2" NON–EXTRUDING FILLER, CLOSED–CELL FOAM RUBBER OR A BITUMEN–TREATED FIBER–BOARD, AND WITH A THICKENED EDGE, INCREASED BY 20 PERCENT, TAPERED TO THE REGULAR THICKNESS IN 5 FEET.
   E. ALL EXPANSION JOINTS SHALL BE FILLED AND SEALED WITH A PLASTIC JOINT SEALANT MATERIAL.
6. ACCESSIBLE PARKING
   A. STALLS SHALL BE SIGNED WITH CITY/ADA APPROVED SIGN AND CONSTRUCTED IN STRICT ACCORDANCE WITH CITY/ADA CODES AND ORDINANCES.
   B. ACCESSIBLE PARKING STALLS SHALL NOT EXCEED 2.00 PERCENT IN ANY DIRECTION. ACCESSIBLE SIDEWALKS HAVE A MAXIMUM CROSS SLOPE OF 2 PERCENT AND A MAXIMUM LONGITUDINAL SLOPE OF 5 PERCENT.
   C. STALLS SHALL BE MARKED BY THE INTERNATIONAL HANDICAPPED SYMBOL AT INDICATED PARKING SPACES. USE A SUITABLE TEMPLATE THAT WILL PROVIDE A PAVEMENT MARKING WITH SHARP EDGES AND ENDS.
7. PAVEMENT MARKINGS SHALL BE PER SECTION 321723 OF THE PROJECT MANUAL AS INDICATED ON PLANS.
8. CURBS AT FIRE LANES AS DESIGNATIONS BY THE FIRE MARSHAL SHALL BE PAINTED OR OTHERWISE INDICATED PER CITY OF CITY CODES AND ORDINANCES.
9. PAINT FOR MARKING PAVEMENT SHALL CONFORM TO FEDERAL HIGHWAY MARKING STANDARDS (FHMS) AND CITY OF CITY CODES AND ORDINANCES. USE FLAT BLACK, WHITE, OR YELLOW AS DIRECTED WTHIN PLANS OR IN CONFORMANCE WITH THE FHMS. UNLESS OTHERWISE SPECIFIED USE LATEX, WATER–BASE EMULSION, READY–MIXED, COMPLYING WITH FS TT–P–1952 WITH DRYING TIME OF LESS THAN 45 MINUTES.
10. APPLY ALL MARKINGS USING APPROVED MECHANICAL EQUIPMENT (WITH PROVISIONS FOR CONSTANT AGITATION OF PAINT), CAPABLE OF APPLYING THE MARKING WIDTHS AS SHOWN AND A MINIMUM WET FILM THICKNESS OF 15 MILS. USE PNEUMATIC SPRAY GUNS FOR HAND APPLICATION OF PAINT. ALL PAINTING EQUIPMENT AND OPERATIONS SHALL BE UNDER THE CONTROL OF EXPERIENCED TECHNICIANS THOROUGHLY FAMILIAR WITH EQUIPMENT AND MATERIALS AND MARKING LAYOUTS.

N

0' 10' 20' 40'
SCALE IN FEET

REV	DATE	DESCRIPTION	BY
1	02.21.2020	PRELIMINARY/FINAL PLAN REVIEW REVISIONS	RMY
	01.22.2020	CONSTRUCTION DOCUMENTS	RMY

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PREPARED FOR:
McDonald's USA, LLC

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DRAWN BY: RMY
STD ISSUE DATE: 1/22/2020
REVIEWED BY: MAP
DATE ISSUED: 1/22/2020

TITLE: SITE PLAN
DESCRIPTION: 2018 PROTOTYPE 45'X97' + 10 EXPANSION
SITE ID: 015–0071
SITE ADDRESS: 605 S 7TH ST, KANSAS CITY, KS 66105

SHEET NO.
015–0071.00.0
C4.0

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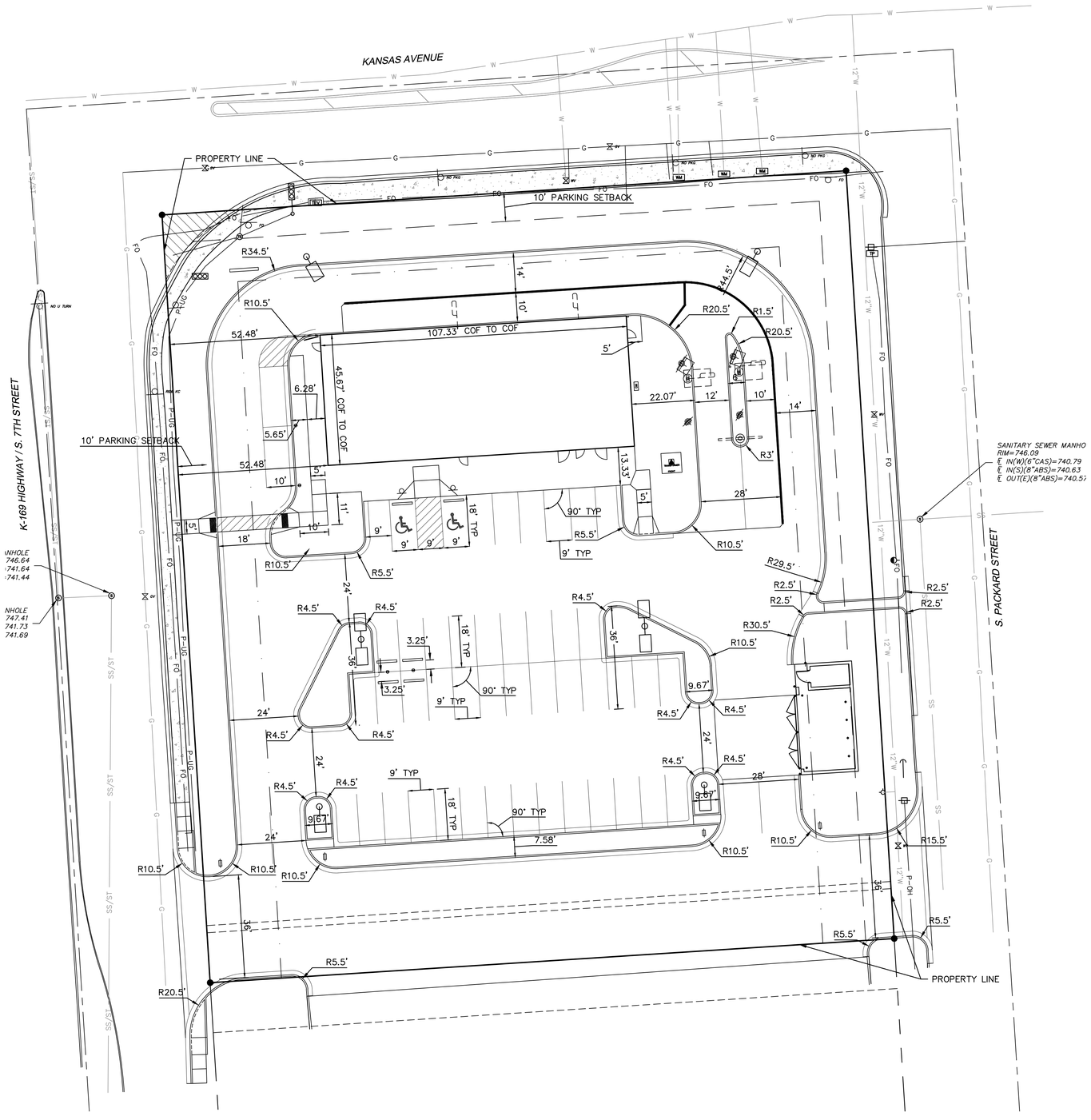

NOTES

1. ALL DIMENSIONS ARE TO FACE OF CURB UNLESS SHOWN OR NOTED OTHERWISE.
2. ALL DIMENSIONS ARE PERPENDICULAR TO PROPERTY LINE.
3. SEE EXISTING CONDITIONS SHEETS FOR PROJECT BENCHMARK AND CONTROLS.

REV	DATE	DESCRIPTION	BY
1	02.21.2020	PRELIMINARY/FINAL PLAN REVIEW REVISIONS	RMY
	01.22.2020	CONSTRUCTION DOCUMENTS	RMY

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DRAWN BY	REVIEWED BY	DATE ISSUED
RMY	MAP	1/22/2020
STD ISSUE DATE 1/22/2020		

TITLE: SITE LAYOUT
DESCRIPTION: 2018 PROTOTYPE 45'X97' + 10 EXPANSION
SITE ID: 015-0071
SITE ADDRESS: 605 S 7TH ST, KANSAS CITY, KS 66105

015-0071.00.0

SHEET NO.
C4.1

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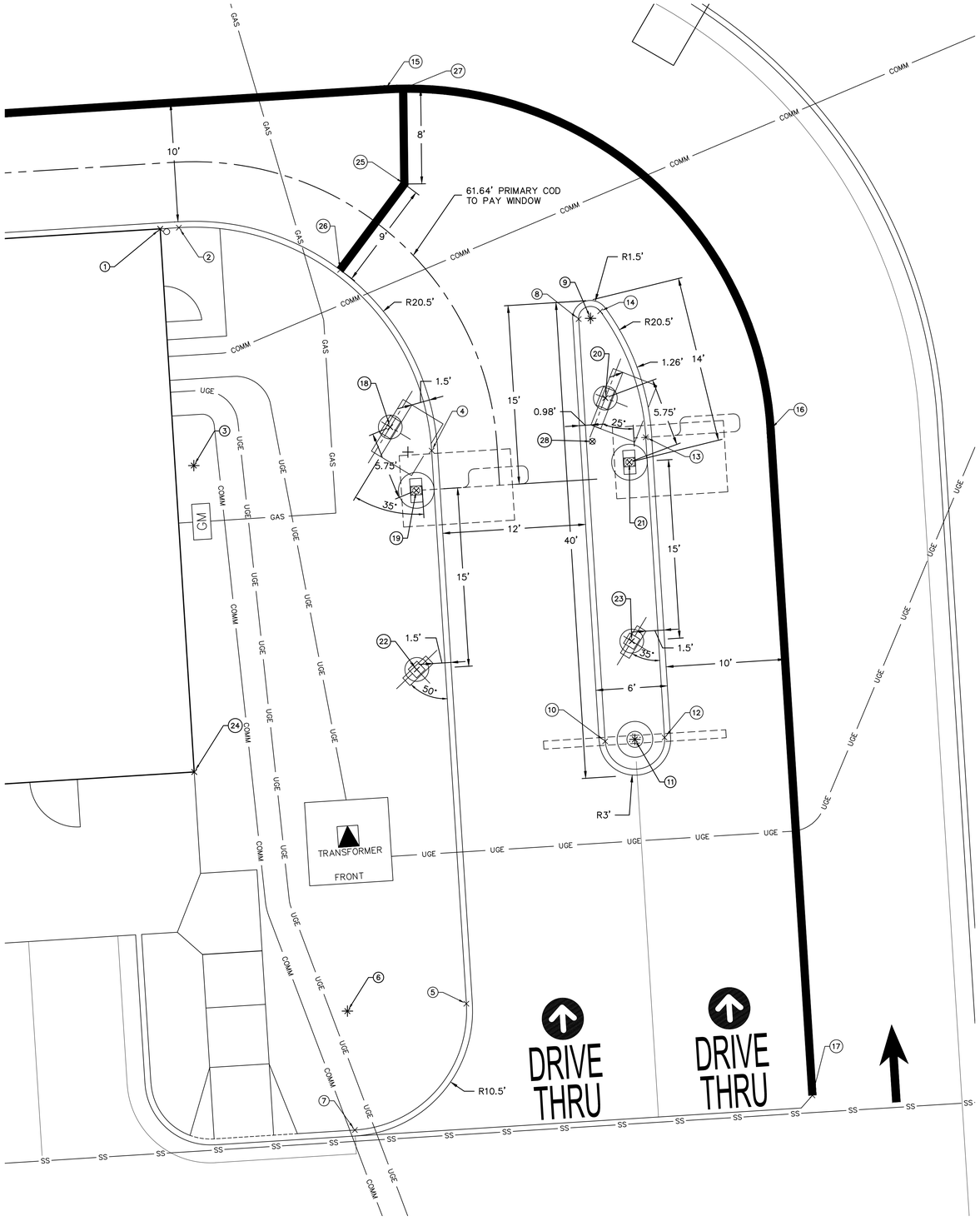

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2	EOR	292452.1949	2270033.8258
3	COR	292432.2341	2270035.0772
4	EOR	292433.4855	2270055.0380
5	EOR	292387.0766	2270057.9476
6	COR	292386.4509	2270047.9672
7	EOR	292376.4705	2270048.5929
8	EOR	292444.5258	2270067.3714
9	COR	292444.5883	2270068.3694
10	EOR	292409.0953	2270069.5926
11	COR/COF	292409.2518	2270072.0877
12	EOR	292409.4082	2270074.5828
13	EOR	292434.6117	2270073.0027
14	EOR	292445.1793	2270069.1761
15	EOS	292463.8006	2270051.1335
16	EOS	292435.2687	2270083.4822
17	EOS	292379.3785	2270086.9861
18	COF	292435.4629	2270051.5577
19	COF	292430.1449	2270053.7445
20	COF	292437.8996	2270069.6100
21	COF	292432.5166	2270071.6311
22	COF	292415.1180	2270053.7853
23	COF	292417.4993	2270071.8262
24	COB	292406.5193	2270035.1133
25	EOS	292455.8584	2270052.7447
26	EOS	292448.6509	2270047.3546
27	EOS	292463.8577	2270052.6391
28	COF	292434.2604	2270068.5159

LAYOUT NOTE

NORTHING–EASTING LOCATION GIVEN AT BACK OF CURB.
DIMENSIONS ARE GIVEN AT FACE OF CURB.

COB – CORNER OF BUILDING FOUNDATION
EOR – END OF RADIUS
COR – CENTER OF RADIUS
COF – CENTER OF FOUNDATION
EOS – END OF STRIPING

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RMY	MAP	1/22/2020

STD ISSUE DATE 1/22/2020

TITLE: DRIVE THRU LAYOUT

DESCRIPTION: 2018 PROTOTYPE 45'X97' + 10 EXPANSION

SITE ID: 015-0071

SITE ADDRESS: 605 S 7TH ST, KANSAS CITY, KS 66105

015-0071.00.0

SHEET NO. C4.2

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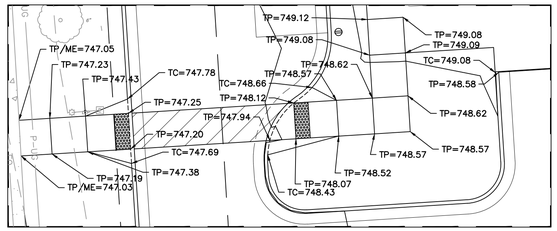

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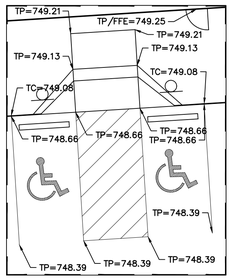

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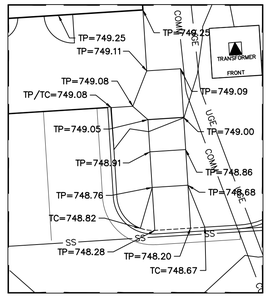

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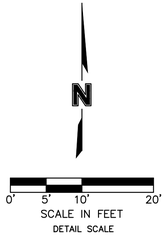

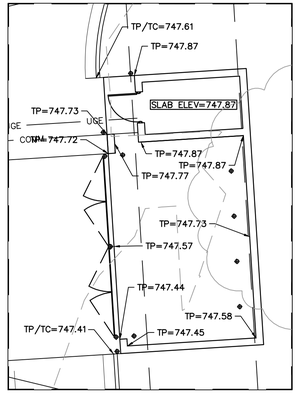

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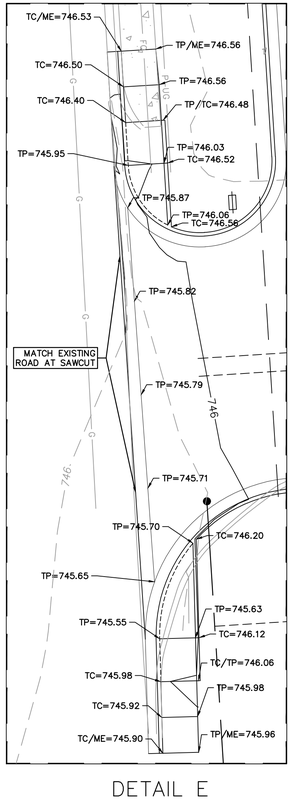

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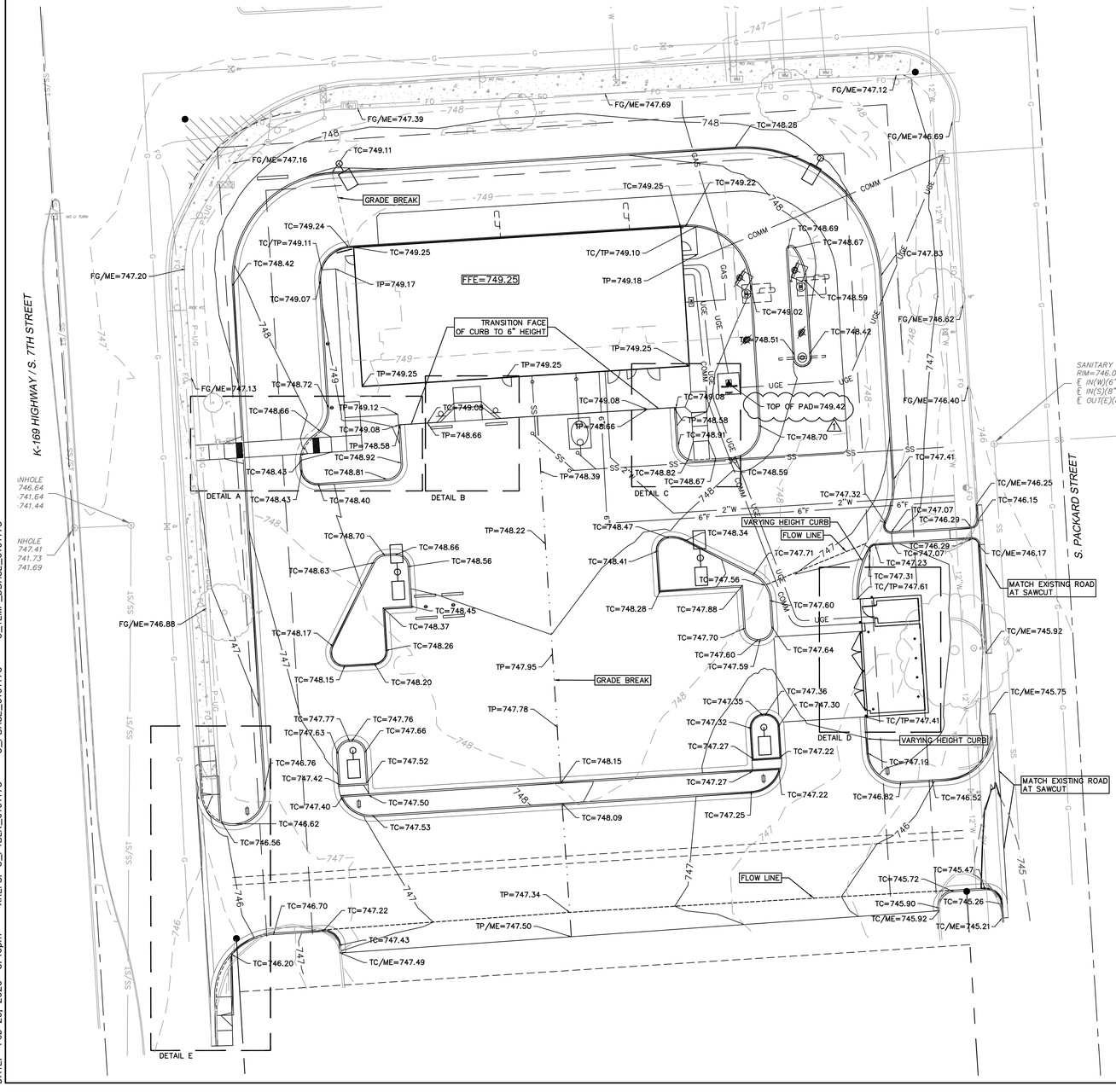


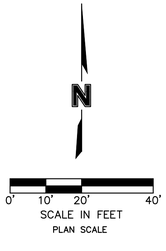
GRADING PLAN NOTES

1. THE CONTOUR LINES, SPOT ELEVATIONS AND BUILDING FLOOR ELEVATIONS SHOWN ARE TO FINISH GRADE, SURFACE OF PAVEMENT, TOP OF CURBS, ETC. REFER TO TYPICAL SECTIONS FOR PAVING, SLAB AND AGGREGATE BASE THICKNESS TO DEDUCT PAVEMENT DEPTH FROM ELEVATIONS SHOWN.
2. THE CONTRACTOR SHALL FINISH GRADE SLOPES AS SHOWN NO STEEPER THAN 1 FOOT VERTICAL IN 3 FEET HORIZONTAL.
3. THE CONTRACTOR SHALL GRADE LANDSCAPED AREAS TO PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDING AND SIDEWALKS WHEN FINISH LANDSCAPE MATERIALS ARE IN PLACE.
4. SPOT ELEVATIONS ARE TO EDGE OF PAVEMENT, TOP OF CURB, OR FINISHED GRADE UNLESS OTHERWISE INDICATED. (SEE LEGEND)

LEGEND

TC TOP OF CURB
TP TOP OF PAVEMENT
ME MATCH EXISTING
FG FINISHED GRADE

— — 987 — — EXISTING GROUND CONTOUR
—— **987** —— FINISHED GROUND CONTOUR
— — — — — — GRADE BREAK
---------- FLOW LINE



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RMY	MAP	1/22/2020
STD ISSUE DATE 1/22/2020		

TITLE: GRADING PLAN
DESCRIPTION: 2018 PROTOTYPE 45X97' + 10 EXPANSION
SITE ID: 015-0071
SITE ADDRESS: 605 S 7TH ST, KANSAS CITY, KS 66105
015-0071.00.0
SHEET NO. C5.0

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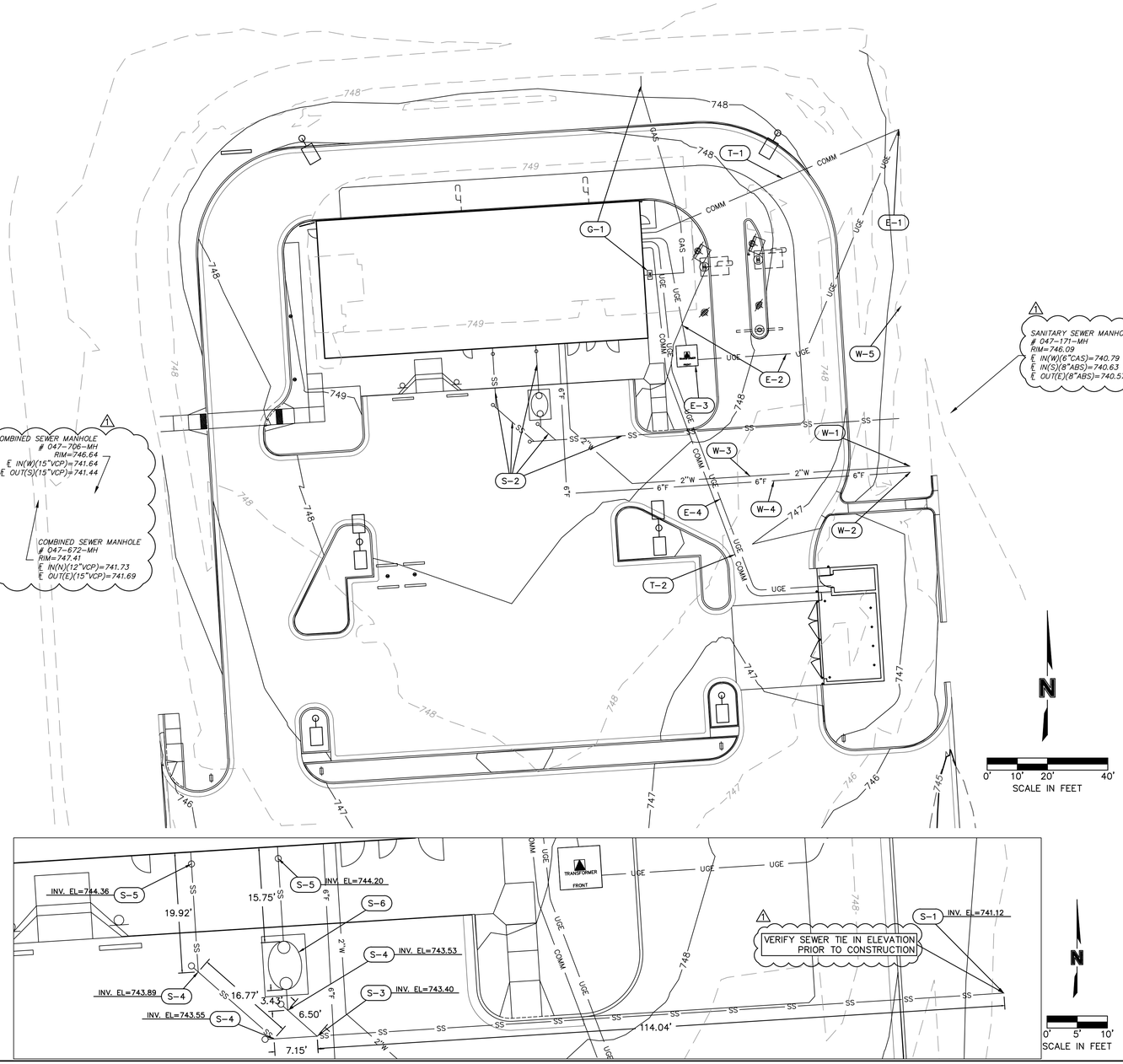
DATE: Feb 20, 2020 3:46pm XREFS: C_PTBLK_0191175 C_PBASE_0191175 C_TEMP_DBASE_0191175

SANITARY SEWER PLAN NOTES

1. ALL SANITARY SEWER SYSTEMS THAT ARE TO BE PUBLIC LINES SHALL BE CONSTRUCTED IN ACCORDANCE WITH SPECIFICATIONS PREVIOUSLY APPROVED BY THE GOVERNING REGULATORY AGENCY AS WELL AS THE APPROPRIATE STATE AGENCY AND SHALL BE INSPECTED BY SAID AGENCY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ASSURE THAT THIS INSPECTION OCCURS.
2. ALL PIPE LENGTHS ARE CALCULATED LINEARLY FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
3. GRAVITY SANITARY SEWER SERVICE LATERALS:
   - ALL GRAVITY SANITARY SEWER LATERALS SHALL BE PVC SCHEDULE 40
   - LATERAL CONNECTIONS TO THE MAIN SHALL BE A MINIMUM OF TWO FEET FROM ANY PIPE JOINT
4. COORDINATES ARE PROVIDED AT THE CENTER OF STRUCTURE. ADDITIONAL COORDINATES PROVIDED ARE PER LOCAL CODES AND ORDINANCES OR AS AN AID WHEN ORIENTING THE LID DURING INSTALLATION.
5. THE CONTRACTOR SHALL EXPOSE EXISTING UTILITIES AT LOCATIONS OF POSSIBLE CONFLICT AND POINTS OF CONNECTION PRIOR TO ANY CONSTRUCTION OF SANITARY SEWER.
6. SANITARY SEWER TRENCHES SHALL BE CONSTRUCTED SUCH THAT UNDISTURBED EXISTING SOIL OR FILL COMPACTED TO 95% PROCTOR DENSITY IS AT A DEPTH THAT IS 18" ABOVE TOP OF PROPOSED PIPE.
7. PIPE PENETRATIONS SHALL BE USE GASKETS TO ENSURE WATERTIGHT SEALS.
8. TRACING TAPE SHALL BE INSTALLED ALONG ALL NON-METALLIC SURFACES OR AS DIRECTED BY LOCAL CODES AND ORDINANCES.
9. SEWER LINE INSPECTIONS AND TESTING MUST BE SCHEDULED A MINIMUM OF TWO FULL BUSINESS DAYS IN ADVANCE. CONTRACTOR SHALL FURNISH ALL TESTING EQUIPMENT. TESTING SHALL INCLUDE
   A. MANDREL TEST OF ALL GRAVITY SEWERS. IF THE MANDREL TEST FAILS ON ANY SECTION OF PIPE, THAT SECTION SHALL BE UNCOVERED AND REPLACED.
   B. AIR PRESSURE TEST OF ALL GRAVITY SEWERS.
   C. VACUUM TEST OF ALL MANHOLES.
10. GRAVITY SANITARY SEWER AND WATER LINES SHALL BE SEPARATED BY A MINIMUM OF 10' HORIZONTALLY WHEN PARALLEL AND 2' VERTICALLY WHEN CROSSING. WATER LINES SHALL CROSS ABOVE SANITARY SEWERS.



WATER PLAN NOTES

1. PRIOR TO COMMENCEMENT OF WORK THE CONTRACTOR SHALL NOTIFY AND COORDINATE CONSTRUCTION WITH UTILITY OWNER.
2. ALL PIPE LENGTHS ARE CALCULATED LINEARLY FROM CENTER OF FITTING OR WALL OF VAULT.
3. THE CONTRACTOR SHALL EXPOSE EXISTING UTILITIES AT LOCATIONS OF POSSIBLE CONFLICT AND POINTS OF CONNECTION PRIOR TO ANY CONSTRUCTION OF WATER.
4. WATER PIPE TRENCHES SHALL BE CONSTRUCTED SUCH THAT UNDISTURBED EXISTING SOIL OR FILL COMPACTED TO 95% PROCTOR DENSITY IS AT A DEPTH THAT IS 18" ABOVE TOP OF PROPOSED PIPE.
5. ALL PRIVATE WATER LINES SHALL BE A MINIMUM OF 48 INCHES AND MAXIMUM OF 60 INCHES BELOW THE FINISHED GRADE ELEVATIONS SHOWN HEREIN UNLESS OTHERWISE NOTED.
6. IF AN AS-BUILT OF A WATER LINE IS REQUIRED OR EXPECTED THE CONTRACTOR SHALL NOT BACKFILL THE TRENCH UNTIL AN AS-BUILT SURVEY IS CONDUCTED.
7. DISINFECTION AND PRESSURE TESTING OF WATER LINES SHALL BE PERFORMED AND PAID FOR BY THE CONTRACTOR AND AS REQUIRED BY THE UTILITY OWNER.
8. TRACING TAPE SHALL BE INSTALLED ALONG ALL NON-METALLIC SURFACES OR AS DIRECTED BY LOCAL CODES AND ORDINANCES.
9. WATER LINES AND GRAVITY SANITARY SEWER SHALL BE SEPARATED BY A MINIMUM OF 10' HORIZONTALLY WHEN PARALLEL AND 2' VERTICALLY WHEN CROSSING. WATER LINES SHALL CROSS ABOVE SANITARY SEWERS.
10. ALL WATER SYSTEMS THAT ARE TO BE PUBLIC LINES SHALL BE CONSTRUCTED IN ACCORDANCE WITH SPECIFICATIONS PREVIOUSLY APPROVED BY THE GOVERNING REGULATORY AGENCY AS WELL AS THE APPROPRIATE STATE AGENCY AND SHALL BE INSPECTED BY SAID AGENCY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ASSURE THAT THIS INSPECTION OCCURS.
11. BRANCH SERVICE LINES SHALL CONFORM TO THE LATEST FEDERAL SPECIFICATIONS FOR TYPE K STRAIGHT COPPER TUBING.
12. ALL WATER SERVICE INSTALLATIONS INCLUDING BACKFLOW DEVICES ARE SUBJECT TO FIELD VERIFICATION BY WATER REGULATORY AGENCY.

DRY UTILITY PLAN NOTES

1. PRIOR TO COMMENCEMENT OF WORK THE CONTRACTOR SHALL NOTIFY AND COORDINATE CONSTRUCTION WITH UTILITY OWNERS. CONTRACTOR SHALL COORDINATE ALL UTILITY DEMOLITION, CONSTRUCTION, AND TEMPORARY SERVICES FOR AFFECTED SITES.
2. ALL ON-SITE WIRING AND CABLES SHALL BE PLACED UNDERGROUND AND WITHIN CONDUIT UNLESS OTHERWISE SPECIFIED IN THESE PLANS. IF NOT SPECIFIED, ALL CONDUIT SHALL BE IN CONFORMANCE WITH UTILITY OWNER STANDARDS AND SPECIFICATIONS.
3. TELEPHONE AND COMMUNICATION SERVICE ROUTING AND CONDUITS, IF SHOWN AT ALL, ARE SUGGESTED ALIGNMENTS ONLY. CONTRACTOR SHALL COORDINATE INSTALLATION OF CONDUIT AS REQUIRED BY MEP AND RELATED PLANS AS WELL AS SERVICE PROVIDER PRIOR TO PAVEMENT INSTALLATION.
4. ALL CONDUIT SHALL BE SCHEDULE 40 PVC PIPE AND SIZED PER MEP PLANS OR AS NOTED. CONDUIT SHALL BE SUFFICIENTLY FLEXIBLE TO ALLOW IT TO CONFORM TO MINOR CHANGES IN TRENCH DIRECTION OR ELEVATION. ALL OTHER BENDS SHALL BE MADE USING PRE-FORMED SWEEPS.
5. MINIMUM SEPARATION REQUIREMENTS:
   A. ELECTRIC TO GAS & WATER WILL BE 4' HORIZONTALLY
   B. ELECTRIC & COMMUNICATION CONDUITS HAVE NOT MINIMUM SEPARATION HORIZONTALLY OR 1 FT VERTICALLY
6. THE CONTRACTOR SHALL COORDINATE WITH ALL UTILITY COMPANIES TO DETERMINE EXACT POINT OF SERVICE CONNECTION AT EXISTING UTILITY. REFER TO THE BUILDING ELECTRICAL AND PLUMBING DRAWINGS FOR UTILITY SERVICE ENTRANCE LOCATIONS AND CIRCUITING. ALL FACILITIES PLACED SHALL BE INSPECTED BY THE APPROPRIATE UTILITY PRIOR TO BACKFILL OR PLACING CONCRETE.
7. THERE SHALL BE NO ABOVE GRADE OBSTRUCTION WITHIN 3' FT OF THE SIDES AND 10' OF THE FRONT OF ALL ABOVE GRADE EQUIPMENT.

UTILITY LEGEND

- (G-1) LOCATE EXISTING GAS SERVICE LINE, COORDINATE USE OF EXISTING SERVICE LINE WITH GAS COMPANY AND MEP SPECIFICATIONS, COORDINATE INSTALLATION OF 90 LF SERVICE LINE AND METER PER GAS COMPANY SPECIFICATIONS. CONTRACTOR TO COORDINATE SIZING OF SERVICE LINE AND GAS METER WITH MEP PLANS.
- (E-1) COORDINATE NEW CONNECTION TO EXISTING SERVICE WITH ELECTRIC PROVIDER
- (E-2) INSTALL 170 LF 4" CONDUIT WITH PULL STRING PER ELECTRIC PROVIDER SPECIFICATIONS
- (E-3) INSTALL TRANSFORMER PAD PER ELECTRIC PROVIDER SPECIFICATIONS, COORDINATE TRANSFORMER WITH ELECTRIC PROVIDER AND MEP PLANS
- (E-4) INSTALL 160' 4" CONDUIT WITH PULL STRING FOR ELECTRIC SERVICE TO SHED/TRASH ENCLOSURE, RE MEP.
- (T-1) INSTALL 100 LF 4" CONDUIT WITH PULL STRING FOR PHONE SERVICE, COORDINATE CONNECTION WITH AT&T
- (T-2) INSTALL 170 LF 2" CONDUIT WITH PULL STRING FOR SECURITY CABLE, RE ARCH
- (W-1) COORDINATE 2" TAP AND 2" METER INSTALL WITH KC BPU
- (W-2) COORDINATE TAPING SLEEVE AND VALVE INSTALL FOR FIRE SUPPRESSION WITH KC BPU AND FIRE SUPPRESSION DESIGNER
- (W-3) INSTALL 150 LF, 2", TYPE K COPPER WATERLINE
- (W-4) INSTALL 170 LF, DIP, CLASS 51, 6" FIRE SUPPRESSION LINE, COORDINATE FINAL SIZE AND DESIGN WITH KC BPU AND FIRE SUPPRESSION DESIGNER
- (W-5) COORDINATE EXISTING TAP/METER SIZING AND USE WITH LANDSCAPE CONTRACTOR. IF NEW TAP IS REQUIRED REMOVE EXISTING METER/SERVICE PER UG REQUIREMENTS. CONTRACTOR TO COORDINATE PERMITTING/INSTALL OF ANY NEW METERS.
- (S-1) INSTALL FERNCO STRONGBACK, OR APPROVED EQUAL, CONNECTION ON EXISTING SERVICE LINE. ELEVATION SHOWN ASSUMES 2% SLOPE FROM SURVEYED MANHOLE. PRIOR TO CONSTRUCTION CONTRACTOR SHALL VERIFY CONNECTION ELEVATION AND THAT SANITARY SERVICE LINE CAN BE INSTALLED AT 2% MINIMUM (AS SHOWN) OR GREATER.
- (S-2) INSTALL 6", SCH-40, PVC PIPE, ALL PIPES, SEGMENT LENGTHS SHOWN IN DETAIL
- (S-3) INSTALL 6", SCH-40, PVC WYE, ELEVATIONS IN DETAIL
- (S-4) INSTALL 6", SCH-40, PVC WYE WITH 1 WAY CLEANOUT, ELEVATIONS IN DETAIL
- (S-5) INSTALL 6", SCH-40, 2-WAY CLEANOUT 2' FROM BUILDING WALL, ELEVATION IN DETAIL
- (S-6) INSTALL GREASE TRAP PER MANUFACTURER SPECIFICATIONS, SEE SHEETS P3.0, P4.0, & P4.1 FOR SPECIFICATIONS AND DETAILS

BY	DESCRIPTION	DATE	REV
RMY	PRELIMINARY/FINAL PLAN REVIEW REVISIONS	02.21.2020	1
RMY	CONSTRUCTION DOCUMENTS	01.22.2020	

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PREPARED FOR:
McDonald's USA, LLC

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DRAWN BY	RMY
STD ISSUE DATE	1/22/2020
REVIEWED BY	MAP
DATE ISSUED	1/22/2020

TITLE: CIVIL UTILITY PLAN
DESCRIPTION: 2018 PROTOTYPE 45'X97' + 10 EXPANSION
SITE ID: 015-0071
SITE ADDRESS: 605 S 7TH ST, KANSAS CITY, KS 66105
015-0071.00.0
SHEET NO. C5.1

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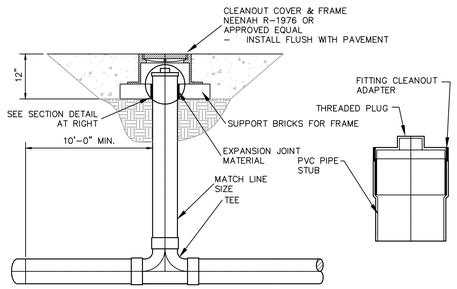
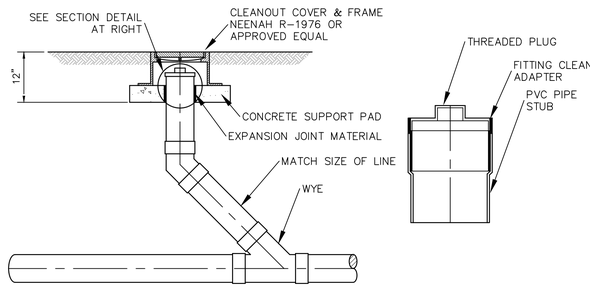
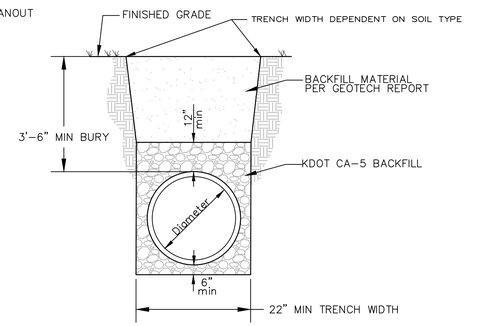


2-WAY TEE CLEANOUT DETAIL
(NOT TO SCALE)



1-WAY WYE CLEANOUT DETAIL
(NOT TO SCALE)

1 C6.0 **CLEANOUT DETAILS**
SCALE: NOT TO SCALE



2 C6.0 **SEWER TRENCH AND BACKFILL**
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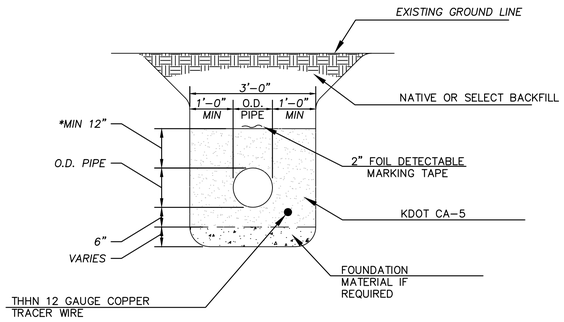
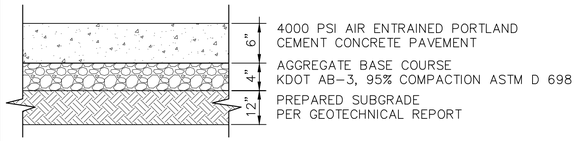


WATER LINE PIPE TRENCHING
(NOT TO SCALE)

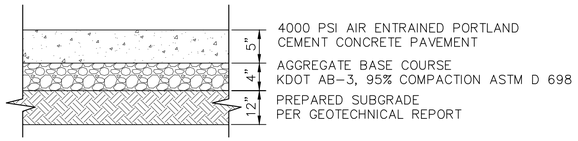
NOTES:
1. 2" DETECTABLE FOIL WARNING TAPE HAVING THE WORDS "CAUTION" AND "WATER LINE" ON A BLUE BACKGROUND SHALL BE INSTALLED 12" ABOVE AND FOR THE LENGTH OF THE PIPE AND IS SUBSIDIARY TO ALL WATER LINE INSTALLATIONS.

3 C6.0 **WATER LINE TRENCHING**
SCALE: NOT TO SCALE



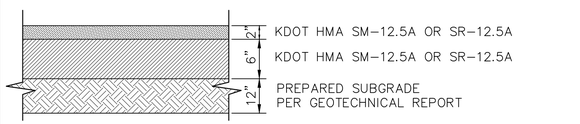
4000 PSI AIR ENTRAINED PORTLAND
CEMENT CONCRETE PAVEMENT
AGGREGATE BASE COURSE
KDOT AB-3, 95% COMPACTION ASTM D 698
PREPARED SUBGRADE
PER GEOTECHNICAL REPORT

HEAVY DUTY CONCRETE SECTION



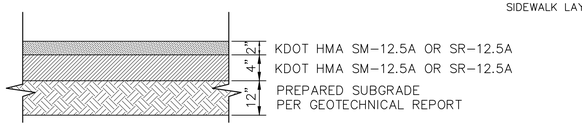
4000 PSI AIR ENTRAINED PORTLAND
CEMENT CONCRETE PAVEMENT
AGGREGATE BASE COURSE
KDOT AB-3, 95% COMPACTION ASTM D 698
PREPARED SUBGRADE
PER GEOTECHNICAL REPORT

LIGHT DUTY CONCRETE SECTION



KDOT HMA SM-12.5A OR SR-12.5A
KDOT HMA SM-12.5A OR SR-12.5A
PREPARED SUBGRADE
PER GEOTECHNICAL REPORT

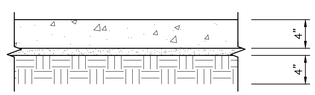
HEAVY DUTY ASPHALT PAVEMENT SECTION



KDOT HMA SM-12.5A OR SR-12.5A
KDOT HMA SM-12.5A OR SR-12.5A
PREPARED SUBGRADE
PER GEOTECHNICAL REPORT

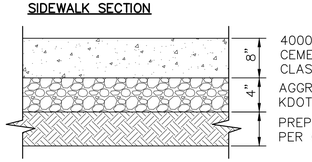
LIGHT DUTY ASPHALT PAVEMENT SECTION

NOTE
PAVEMENT SECTIONS TAKE FROM RECOMMENDATIONS IN THE GEOTECHNICAL REPORT PROVIDED BY OLSSON PROJECT #019-1175, DATED MAY 22 2019 AND ALL ADDENDUMS. WHERE THE PLANS SHOW CONCRETE PAVING, ASPHALT SECTIONS ARE NOT AN ALTERNATIVE.



4000 PSI AIR ENTRAINED PORTLAND CEMENT CONCRETE
PAVEMENT CLASS B PER TOPEKA SPECIFICATIONS
SAND LEVELING BASE
PREPARED SUBGRADE COMPACTED TO 95% MAX. DENSITY
AS PER ASTM-D698 (STANDARD PROCTOR COMPACTION)

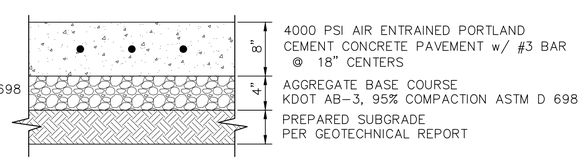
SIDEWALK SECTION



4000 PSI AIR ENTRAINED PORTLAND
CEMENT CONCRETE PAVEMENT,
CLASS A PER TOPEKA SPECIFICATIONS
AGGREGATE BASE COURSE
KDOT AB-3, 95% COMPACTION ASTM D 698
PREPARED SUBGRADE
PER GEOTECHNICAL REPORT

DRIVE ENTRANCE CONCRETE SECTION, PER KC UG SPECIFICAITONS

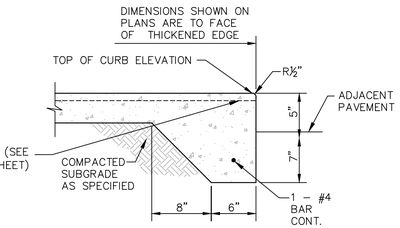
NOTE
SEE UG STANDARD & SPECIFICATIONS SECTION 4100 FOR CONCRETE SPECIFICATIONS WITHIN PUBLIC ROW. SE UG 4100-G FOR COMMERCIAL DRIVEWAY DETAIL.



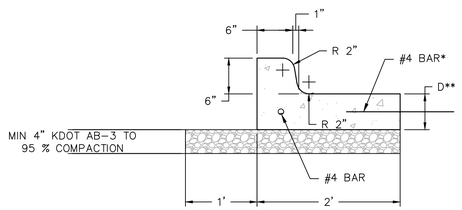
4000 PSI AIR ENTRAINED PORTLAND
CEMENT CONCRETE PAVEMENT w/ #3 BAR
@ 18" CENTERS
AGGREGATE BASE COURSE
KDOT AB-3, 95% COMPACTION ASTM D 698
PREPARED SUBGRADE
PER GEOTECHNICAL REPORT

TRASH ENCLOSURE CONCRETE SECTION

4 C6.0 **PAVEMENT SECTIONS**
SCALE: NOT TO SCALE



5" TURNDOWN CURB/SIDEWALK
(NOT TO SCALE)



* BARS SHALL BE INSTALLED IF CURB IS NOT POURED MONOLITHICALLY WITH PANEL

** D SHALL MATCH PAVEMENT SECITON DEPTH

6" CURB AND GUTTER
(NOT TO SCALE)

6 C6.0 **CURB DETAIL**
SCALE: NOT TO SCALE

BY	DESCRIPTION	DATE	REV
RMY	PRELIMINARY/FINAL PLAN REVIEW REVISIONS	02.21.2020	1
RMY	CONSTRUCTION DOCUMENTS	01.22.2020	

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DRAWN BY	REVIEWED BY	DATE ISSUED
RMY	MAP	1/22/2020

STD ISSUE DATE 1/22/2020

TITLE: DETAIL

DESCRIPTION: 2018 PROTOTYPE 45'X97' + 10 EXPANSION

SITE ID: 015-0071

SITE ADDRESS: 605 S 7TH ST, KANSAS CITY, KS 66105

015-0071.00.0

SHEET NO. C6.0

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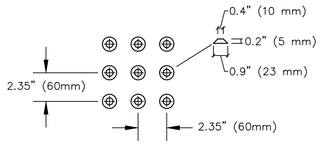
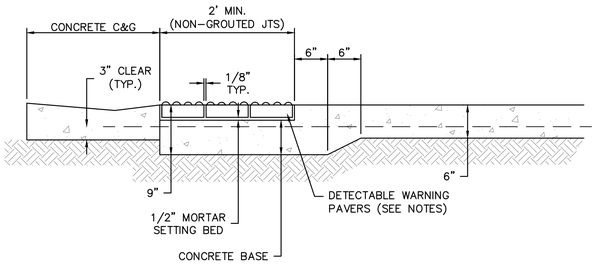


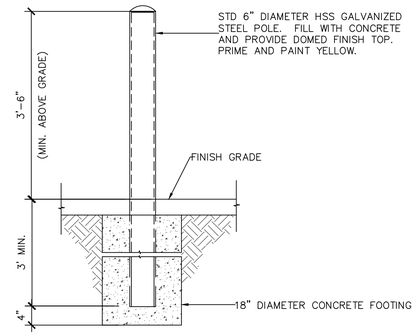
DETECTABLE WARNING SURFACE PATTERN
(NOT TO SCALE)

PAVER BRICK NOTES:

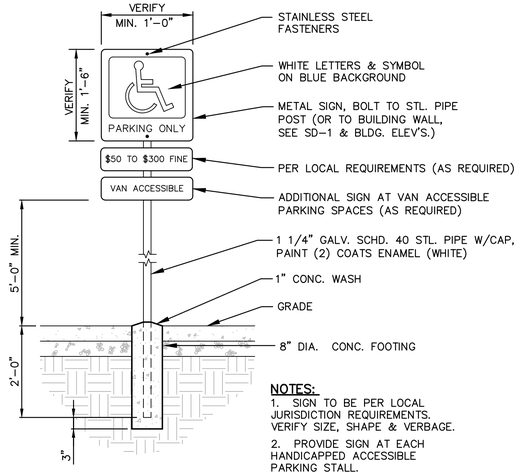
1. PAVING BRICK SHALL BE 2 ¼" X 4" X 8" NON-GROUTED ENDICOTT CLAY PRODUCTS CO., HANDICAP DETECTABLE WARNING PAVERS, COLOR TO CONTRAST WITH CONCRETE, OR APPROVED EQUAL AND SHALL MEET THE REQUIREMENTS OF ASTM C902 FOR CLASS SX TYPE 1 BRICK AND ASTM C1272.
2. THE BRICKS SHALL BE SAW CUT ONLY AND ANY BRICK SHALL NOT BE LESS THAN 25% OF A FULL BRICK.
3. BROOM 50/50 SAND/CEMENT MIX INTO NON-GROUTED JOINTS AFTER BRICK PLACEMENT. THE MAXIMUM ALLOWABLE NON-GROUTED JOINT WIDTH SHALL BE 1/8".
4. DETECTABLE WARNING SURFACE TO EXTEND A MINIMUM OF 2 FT. IN DIRECTION OF TRAVEL.



1 / C6.1 **DETECTABLE WARNING STRIP DETAIL**
SCALE: NOT TO SCALE



2 / C6.1 **BOLLARD**
SCALE: NOT TO SCALE



NOTES:
1. SIGN TO BE PER LOCAL JURISDICTION REQUIREMENTS. VERIFY SIZE, SHAPE & VERBAGE.
2. PROVIDE SIGN AT EACH HANDICAPPED ACCESSIBLE PARKING STALL.

HANDICAP SIGN
(NOT TO SCALE)

3 / C6.1 **HANDICAP SIGN**
SCALE: NOT TO SCALE

ALL PAVEMENT PAINTING-STRIPING, LETTERING DIRECTIONAL ARROWS ARE TO BE WHITE IN COLOR.

PAVEMENT AREAS TO BE STRIPED MUST BE SOUND, AND FREE OF DUST, DIRT, OIL, GREASE AND ANY OTHER FOREIGN MATTER. REMOVE LOOSE AND DIRT BY BRUSHING AND/OR BLOWING CLEAR WITH AIR OR WATER PRESSURE CARE SHOULD BE TAKEN NOT TO SPREAD SURFACE DEPOSITS OF OIL OR GREASE OVER TRADITIONAL AREAS IN THE CLEANING PROCESS; THESE SHOULD BE REMOVED WITH SOLVENTS OR COMMERCIAL DETERGENTS. OLD STRIPING SHOULD BE WIRE-BRUSHED TO ASSURE NEW PAINT BOND, OR REMOVED ENTIRELY IF BADLY CRACKED, FLAKED OR PEELED. WHERE APPLICATION IS OVER PROTECTIVE SEALERS OF COATING, SUCH MATERIALS SHOULD BE ALLOWED TO CURE FOR AT LEAST 48 HOURS BEFORE PAINTING. A CHECK SHOULD BE MADE BY APPLYING A TEST STRIP TO DETERMINED THE READINESS FOR PAINTING.

THE PAVEMENT SURFACE SHOULD BE LAID OUT WITH CHALK MARKS FOR REQUIRED STRIPING SO THAT MARKING WILL BE ACCURATE AND IN KEEPING WITH POSITIONING AND DIMENSIONING SHOWN ON THE SITE PLAN. ONE UNIFORM COAT OF PAINT SHOULD BE APPLIED BY BRUSH, ROLLER OR SPRAY, AT A RATE OF NOT LESS THAN ONE GALLON PER 200 SQUARE FEET. ONE GALLON WILL YIELD FROM 300 TO 500 LINEAR FEET OF 4" WIDE STRIPE.

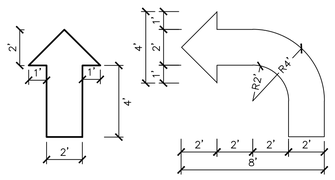
PAINT SHOULD NOT BE APPLIED WHEN WEATHER IS RAINY, FOGGY, OR EXCESSIVELY HUMID (OVER 85% RELATIVE HUMIDITY), AND NOT WHEN AMBIENT OR PAVEMENT TEMPERATURE IS BELOW 50°F, AND NOT WHEN ABOVE CONDITIONS ARE ANTICIPATED FOR EIGHT HOURS AFTER APPLICATION.

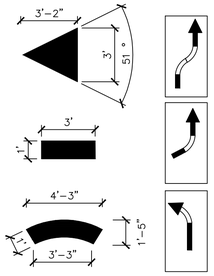
PAINT SHOULD BE NOT OPENED TO TRAFFIC UNTIL ALL PAINT IS ALLOWED TO CURE FOR AT LEAST ONE HOUR. (CONSULT MANUFACTURER FOR SPECIFIC DRYING TIMES).

NOTE: ALL ANGLE PARKING SHOULD COMPLY WITH THE SAME STANDARD STRIPINGS. VERIFY SITE PLAN FOR DETAILED LOCATION.

4 / C6.1 **PAVEMENT MARKING**
SCALE: NOT TO SCALE

TRAFFIC & LANE MARKINGS: NOT ASSOCIATED WITH DRIVE-THRU





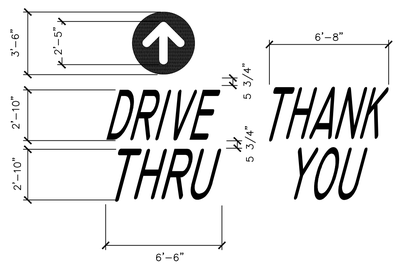
APPLY TWO COATS OF WATERBORNE PAINT (PER FS TT-P-1952) OR SOLVENT BORNE PAINT (PER FS A-A-2886 OR AASHTO M248). TRAFFIC-LANE MARKING PAINT OVER CLEANED PAVING SURFACE ACCORDING TO LAYOUT SHOWN ON THE SITE PLAN. PAINT WHITE OR AS REQUIRED BY CITY CODE.

NOTES:
1. ALL PAINT MARKINGS TO BE APPLIED TO ASPHALT WHEN OUTDOOR TEMPERATURE EXCEEDS +8° MINIMUM.
2. ALL PARKING STALL MARKINGS SHALL BE PAINTED WHITE.
3. ALL DRIVE-THRU MARKINGS SHALL BE PAINTED YELLOW (PMS123), INCLUDING 'DRIVE THRU,' 'THANK YOU,' ALL DIRECTIONAL ARROWS AND DRIVE THRU LANE MARKINGS.
4. BROADCAST GLASS BEADS UNIFORMLY INTO WET PAVEMENT MARKINGS AT A RATE OF 6LB/GAL.
5. CONTACT:
"PAVEMENT STENCIL COMPANY"
P.O BOX 915755
LONGWOOD, FLORIDA 32791
PHONE: 1-800-250-5547

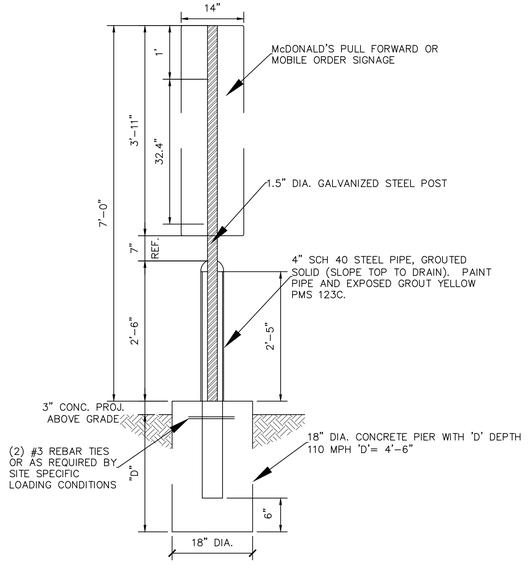
5 / C6.1 **PAVEMENT ARROW TEMPLATES**
SCALE: NOT TO SCALE

PAVEMENT BRANDING NOTES:

1. YELLOW PAINT (PMS123) IS USED FOR ALL DRIVE-THRU MARKINGS.
2. THE WORDS 'DRIVE-THRU' AND THE CIRCLE ARROW ARE PLACED AT ALL ENTRANCES TO THE LOT APPROX. 25' TO 30' FROM THE CURB OR SIDEWALK.
3. THE WORDS 'DRIVE-THRU' SHOULD BE CENTERED IN THE DRIVEWAY FOR ONE WAY TRAFFIC (ON THE INGRESS SIDE OF THE DRIVE AISLE IF THERE IS TWO WAY TRAFFIC).
4. THE CIRCLE DIRECTIONAL ARROW SHOULD BE CENTERED ABOVE THE WORD 'DRIVE' APPROX. 5' IN TO THE PARKING LOT.
5. IF FIVE OR MORE ARROWS ARE NEEDED TO DIRECT CARS TO THE DRIVE-THRU, PLAN THE CORRECT PLACEMENT OF THE ARROWS TO INCLUDE THE APPLICATION OF THE WORDS 'DRIVE THRU' WITH AN ARROW CENTERED ABOVE THE WORD 'DRIVE,' ORIENTED TO THE DECISION POINT.
6. THE DOUBLE-HEADED ARROW FOR A SIDE-BY-SIDE DRIVE-THRU SHOULD BE POSITIONED TO DIRECT TRAFFIC TO EITHER LANE, AS CARS APPROACH TO THE ISLAND. EACH ARROW MUST BE CUSTOMIZED TO FIT THE LANE CONFIGURATION.



6 / C6.1 **PAVEMENT BRANDING**
SCALE: NOT TO SCALE



DIRECT BURIAL

5 / C6.1 **"PULL FORWARD" & "MOBILE ORDER" BOLLARD DETAIL**
SCALE: NOT TO SCALE

REV	DATE	DESCRIPTION
1	02.21.2020	PRELIMINARY/FINAL PLAN REVIEW REVISIONS
	01.22.2020	CONSTRUCTION DOCUMENTS

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PREPARED FOR: McDonald's USA, LLC

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DRAWN BY: RMY
STD ISSUE DATE: 1/22/2020
REVIEWED BY: MAP
DATE ISSUED: 1/22/2020

TITLE: DETAIL
DESCRIPTION: 2018 PROTOTYPE 45'X97' + 10 EXPANSION
SITE ID: 015-0071
SITE ADDRESS: 605 S 7TH ST, KANSAS CITY, KS 66105
015-0071.00.0

SHEET NO. C6.1

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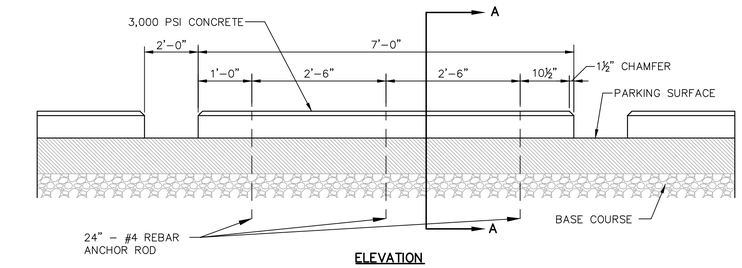
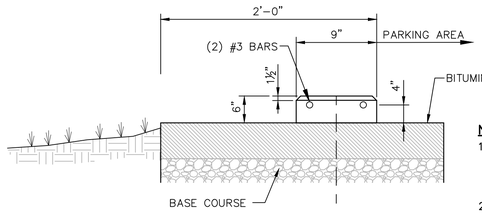
DATE: Feb 20, 2020 3:47pm XREFS: C_PTBLK_0191175



ELEVATION



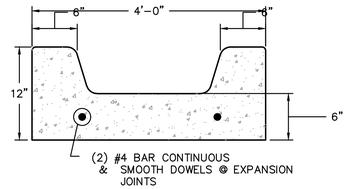
SECTION A-A

CURB STOP DETAIL
(NOT TO SCALE)

NOTE:

1. ANCHOR RODS TO BE SLEEVED OR GREASED THRU CURB STOP TO PERMIT RELOCATION.
2. PRE-CAST CURB STOP IS ACCEPTABLE. DIMENSIONS OF PRE-CAST CURB STOP MAY VARY.

1 C6.2 **WHEEL STOP DETAIL**
SCALE: NOT TO SCALE



2 C6.2 **CONCRETE FLUME**
SCALE: NOT TO SCALE

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TITLE: DETAIL
DESCRIPTION: 2018 PROTOTYPE 45'X97' + 10 EXPANSION
SITE ID: 015-0071
SITE ADDRESS: 605 S. 7TH ST, KANSAS CITY, KS 66105
015-0071.00.0

DWG: F:\2019\1001-1500\019-1175\40-Design\AutoCAD\Final Plans\Sheets\GNCV\C_DTL01_0191175.dwg USER: ryenni
DATE: Feb 20, 2020 3:47pm XREFS: C_PTBLK_0191175

THE LAYOUT OF THE DRIVE–THRU LANES SHOWN IN THIS DETAIL ILLUSTRATES DRIVE–THRU DESIGN PRINCIPLES.

SIDE BY SIDE DRIVE–THRU STANDARD 1.0

1. SIDE BY SIDE DRIVE–THRU STANDARD 1.0 CURBING DETAILS:

[1A] DRIVE–THRU LANES BOUND BY CURB ON BOTH SIDES ARE TO BE 12'–0". LANES BOUND BY CURB ON ONE SIDE AND PAINTED STRIPING ON THE OTHER SIDE ARE TO BE A MIN. OF 10'–0".

[1B] THE MIN. RADIUS FOR ALL INSIDE/DRIVER'S SIDE DRIVE–THRU CURBING IS 20'–0".

[1C] PRIMARY LANE CURBING SHOULD BE AS STRAIGHT AS POSSIBLE. (LESS CURVING, THE BETTER).

[1D] THE OVERALL LENGTH OF THE CURBED ISLAND SHOULD BE 35'–45'. THE LENGTH OF THE ISLAND FROM THE COD ALLOWS FOR THREE CARS IN THE SECONDARY LANE, TWO IN THE PRIMARY LANE AND ONE AT THE COMMITMENT POINT.

[1E] ENTRANCE LANE ENTERING THE SIDE BY SIDE DRIVE–THRU IS TO BE 14'–0" MIN.

[1F] THE RADIUS FOR THE ISLAND TIP SHALL BE 1'–6".

2. SIDE BY SIDE DRIVE–THRU STANDARD 1.0 PAVEMENT MARKINGS:

[2A] 6" WIDE YELLOW PAINT STRIPE TO SPAN OUTER EDGE OF THE ENTIRE DRIVE–THRU LANE. LANE STARTS AT DRIVE–THRU ENTRANCE WHERE "McDONALD'S GATEWAY" SIGN IS LOCATED.

[2B] DOUBLE–HEADED ARROW PAVEMENT MARKING. STANDARD STRIPING MARKINGS ARE 7'–0" SHAFT, 7'–0" ARROW STEM AND 3'–0" FOR THE ARROW HEAD. TIP OF ARROW HEAD TO BE LOCATED AT CENTER OF EACH LANE.

[2C] MERGE POINT IS LOCATED WHERE TWO VEHICLES LEAVING EACH COD SIMULTANEOUSLY MEET. THE MERGE POINT STRIPING IS TO BE LOCATED BY OFFSETTING THE INNER PRIMARY LANE BACK OF CURB 9'–0" AND OFFSETTING THE OUTER LANE STRIPING 8'–0". AT THE INTERSECTION OF THESE OFFSETS, A 6" YELLOW STRIPE IS TO BE MARKED PERPENDICULAR TO THE OUTER LANE AS WELL AS THE INNER PRIMARY LANE.

[2D] THE WORDS "THANK YOU" ARE TO BE PLACED 8" FROM THE EDGE OF THE YELLOW STRIPE TO THE BOTTOM OF THE WORD "YOU".

[2E] THE 8" YELLOW STRIPE IS TO BE PLACED 40'–0" FROM THE CENTER LINE OF THE OPEN PRESENT WINDOW AND IS FOR PARKING CARS THAT ARE WAITING FOR ORDERS.

[2F] A CIRCLE DIRECTIONAL ARROW CENTERED ABOVE THE WORD "DRIVE THRU" USED TO INDICATE THE DRIVE THRU ENTRY POINT.

3. SIDE BY SIDE DRIVE–THRU STANDARD 1.0 EQUIPMENT POSITIONING FOR PRIMARY LANE:

[3A] MIN. 60'–0" (+5', 60'–65') LINEAR DISTANCE BETWEEN THE CENTER LINE OF THE COD FACE AND THE CENTER LINE OF THE OPEN ORDER BOOTH WINDOW AS MEASURED ALONG THE CENTER LINE OF THE LANE. THIS MAY ONLY BE INCREASED IN 20'–0" INCREMENTS (±5' FOR 80', 100', AND 120') TO A MAX OF 120'. 100'–0" IS OPTIMAL.

[3B] THE CENTER OF THE PRIMARY MENU BOARD FOUNDATION IS TO BE 5'–3" (5'–0" MIN. AND 6'–0" MAX.) FROM THE CENTER OF THE COD FOUNDATION.

[3C] THE PRIMARY MENU BOARD SHOULD BE AT AN ANGLE OF APPROXIMATELY 25° TO 35° ANGLE (35° PREFERRED) FROM A CAR POSITIONED AT THE COD AND WITH 100% VISIBILITY.

[3D] AUGER "McDONALD'S ORDER HERE CANOPY" COD/CANOPY FOUNDATION TIGHT AGAINST BACK OF CURB. SEE MANUFACTURER/LOCAL SPECIFICATIONS FOR DETAILS.

[3E] A SINGLE BOLLARD SHOULD BE POSITIONED AT THE CORNER OF THE BUILDING ON THE DRIVE–THRU SIDE. IT SHOULD BE FLUSH AGAINST THE BUILDING AND FACE OF THE BOLLARD SHOULD BE TIGHT AGAINST THE BACK OF THE CURB.

[3F] AUGER "McDONALD'S GATEWAY" SIGN FOUNDATION TIGHT AGAINST BACK OF CURB. SEE MANUFACTURER/LOCAL SPECIFICATIONS FOR DETAILS.

[3G] THE DISTANCE BETWEEN THE TIP OF THE CURBED ISLAND AND THE CENTER LINE OF THE PRIMARY COD MUST BE 15'–0". THIS MEASUREMENT IS TAKEN PARALLEL TO THE INSIDE CURB FACE OF THE PRIMARY LANE.

[3H] THE PRIMARY LANE DETECTOR LOOP SHOULD BE PERPENDICULAR TO THE CENTER OF THE PRIMARY COD.

4. SIDE BY SIDE DRIVE–THRU STANDARD 1.0 EQUIPMENT POSITIONING FOR SECONDARY LANE:

[4A] TO POSITION THE SECONDARY COD, DRAW AN ARC WITH A 14' RADIUS THAT IS CENTERED FROM THE MIDPOINT OF THE ISLAND TIP. THEN OFFSET THE FACE OF THE CURB BY 24" TO DETERMINE THE LOCATION OF CENTER OF FOUNDATION OF THE SECONDARY COD.

[4B] WHEN THE SECONDARY COD IS LOCATED AT 14'–0" FROM THE TIP OF THE CURBED ISLAND, THE LOOP DETECTOR IS TO BE 2'–0" FORWARD OF THE COD CENTER LINE WITH THE LOOP FACING FORWARD AND THE DETECTOR LOOP PERPENDICULAR TO THE SECONDARY COD WHEN POSSIBLE.

[4C] THE CENTER OF THE SECONDARY MENU BOARD FOUNDATION SHALL BE 5'–3" (5'–0" MIN. AND 6'–0" MAX.) FROM CENTER OF THE COD FOUNDATION WITH THE END CAP OF THE SECONDARY MENU BOARD NOT BE LESS THAN 12" FROM FACE OF CURB.

[4D] AUGER "McDONALD'S ORDER HERE CANOPY" COD/CANOPY FOUNDATION TIGHT AGAINST BACK OF CURB. SEE MANUFACTURER/LOCAL SPECIFICATIONS FOR DETAILS.

[4E] THE SECONDARY MENU BOARD SHOULD BE AT AN ANGLE OF APPROXIMATELY 25° FROM A VEHICLE POSITIONED AT THE COD AND WITH 100% VISIBIILTY.

[4F] "ANY LANE, ANY TIME" BOLLARD SIGN MUST BE A MIN. OF 1'–6" FROM FACE OF CURB AT THE BEGINNING OF THE LANDSCAPE ISLAND. BOLLARD SIGN IS TO BE ORIENTED AT AN ANGLE OF 90° FROM THE CURB.

5. SIDE BY SIDE DRIVE–THRU STANDARD 1.0 DETECTOR LOOP:

[5A] DETECTOR LOOPS SHALL BE LOCATED AT THE CENTER OF THE OPENING WINDOW AT THE CASH AND PRESENTER BOOTHS.

SIDE BY SIDE DRIVE–THRU STANDARD 1.0 FEATURES:

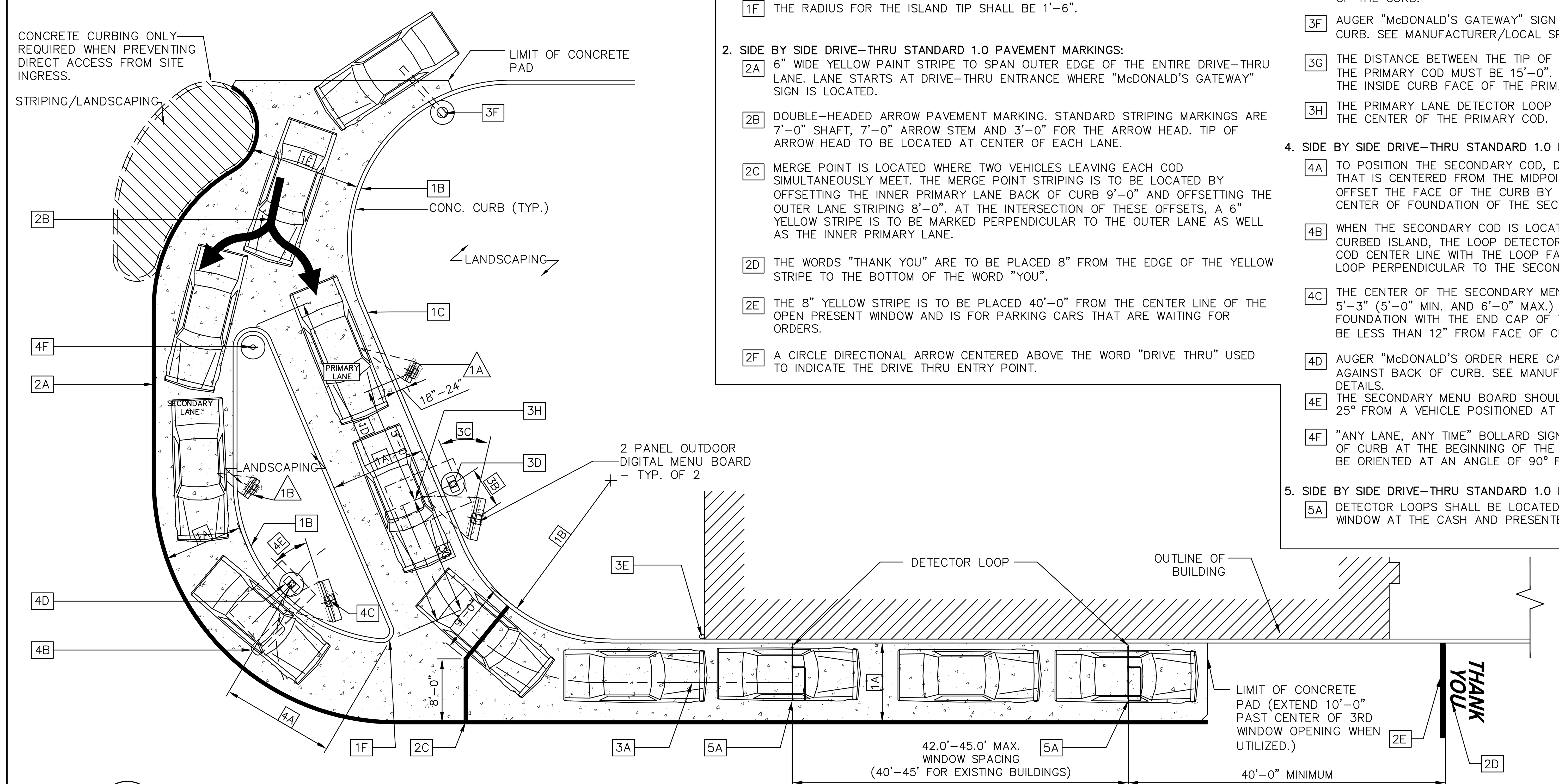
1. SIDE BY SIDE DRIVE–THRU STANDARD 1.0 EQUIPMENT:

△1A PRE–BROWSE BOARD MUST BE 18"–24" FROM FACE OF CURB. THE DISTANCE BETWEEN THE PRIMARY COD AND PRE–BROWSE BOARD IS TO BE 15' AS MEASURED ALONG THE CENTER LINE OF THE LANE. THIS IS MEASURED FROM THE CENTER OF THE PRE–BROWSE BOARD FOUNDATION TO THE CENTER OF THE COD FOUNDATION. THE ANGLE (APPROXIMATELY 50°) OF THE PRE–BROWSE BOARD SHOULD MAXIMIZE VISIBILITY TO THE SECOND CAR FROM COD.

△1B PRE–BROWSE BOARD MUST BE MIN. 12" FROM FACE OF CURB. THE DISTANCE BETWEEN THE SECONDARY COD AND PRE–BROWSE BOARD IS TO BE 15' AS MEASURED ALONG FACE OF THE CURB. THIS IS MEASURED FROM THE POINT PERPENDICULAR TO THE CENTER OF THE PRE–BROWSE BOARD FOUNDATION TO THE POINT PERPENDICULAR TO THE CENTER OF THE COD FOUNDATION. THE ANGLE OF THE PRE–BROWSE BOARD SHOULD MAXIMIZE VISIBILITY TO THE SECOND CAR FROM COD (PREFERRED 35°).

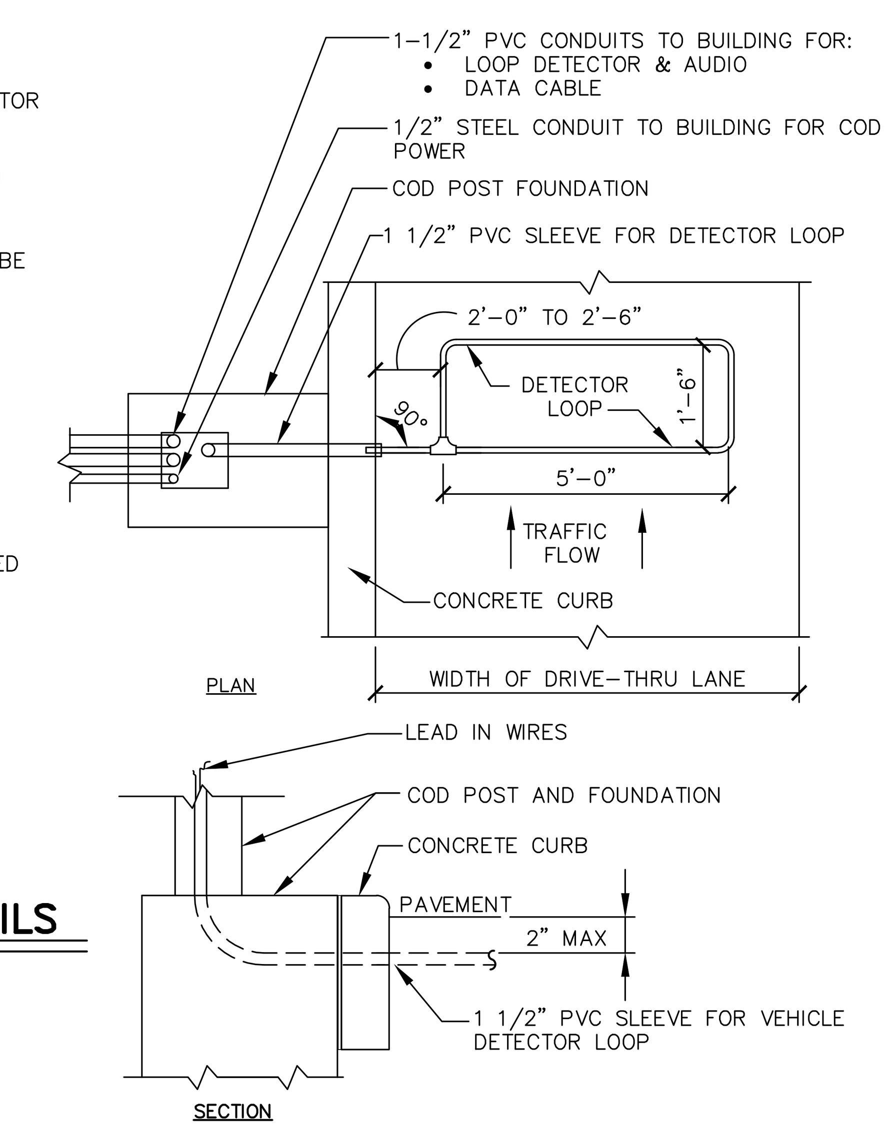
GENERAL NOTES

1. DRIVE–THRU ELEMENTS:
   COD, DRIVE–THRU PYLON/CLEARANCE POLE AND BOLLARD SIGN SHALL BE CONSISTENT WITH THE STANDARD BUILDING DESIGN DRIVE–THRU ELEMENTS.
   OTHER DESIGNS MAY NOT BE USED.
2. CONTRACTOR SHALL COORDINATE WITH APPLICABLE PLANS, McDONALD'S AREA CONSTRUCTION MANAGER, CONTENT SUPPLIER AND SIGNAGE SUPPLIER TO DETERMINE EXACT LOCATION, ORIENTATION, MOUNTING HEIGHTS, AND NUMBER OF BOARDS AND OTHER DRIVE–THRU ELEMENTS TO BE INSTALLED AT THIS SITE. ALL WORK TO BE COORDINATED WITH OTHER TRADES.
3. CONTACT McDONALD'S AREA CONSTRUCTION MANAGER FOR DRIVE–THRU ELEMENT FOOTING AND WIRING REQUIREMENTS NOT SHOWN. (INFORMATION ALSO AVAILABLE THROUGH VENDOR WEBSITES) SIGNAGE MANUFACTURER TO PROVIDE FOOTING ANCHORS & TEMPLATES TO G.C. PRIOR TO FOUNDATION POURING.
4. SEE DETAIL 2/ODMB FOR DETECTOR LOOP INFORMATION, DETAIL 3/ODMB FOR LOW VOLTAGE CONDUIT DIAGRAM AND DETAIL 4/ODMB FOR DRIVE THRU POWER DIAGRAM; VENDOR'S SPECIFICATIONS SHALL GOVERN UPON ANY DISCREPANCIES.
5. CONTRACTOR TO COORDINATE THE RESPONSIBILITIES OF THE ELECTRICAL CONTRACTOR, CONTENT SUPPLIER AND THE SIGN SUPPLIER.
6. CONTRACTOR TO INSTALL PRE–FORMED, PRE–WIRED VEHICLE DETECTOR LOOP.
7. CONTRACTOR SHALL VERIFY CONDUIT SIZES REQUIRED BY VEHICLE LOOP DETECTOR SUPPLIER.

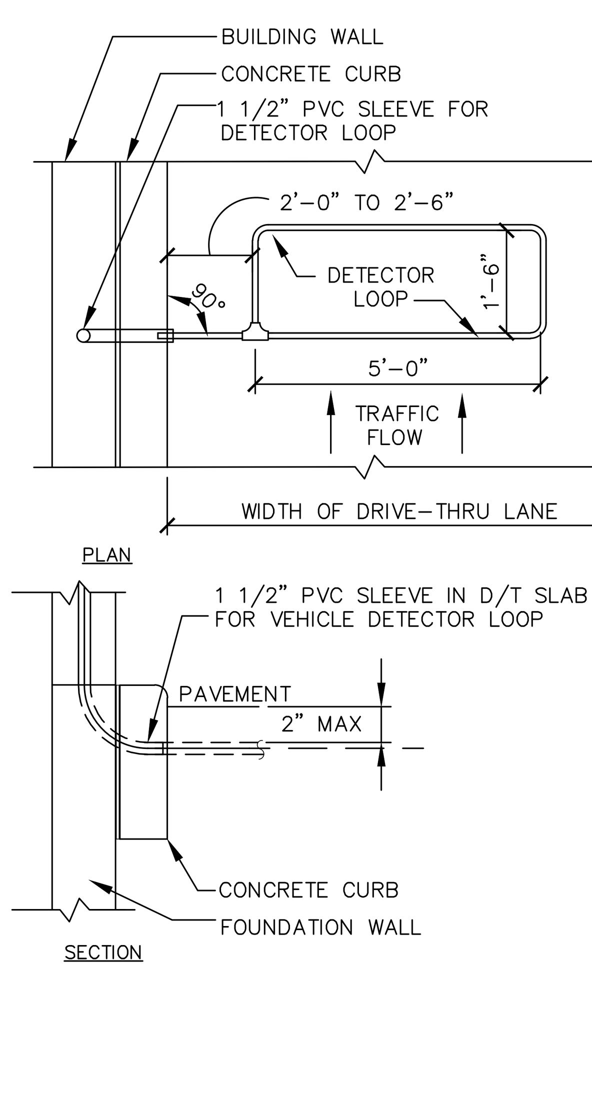


1 ODMB **DRIVE THRU LAYOUNT GUIDELINES**
1" = 10'=0"

NOTES
1. VERIFY CONDUIT SIZES AND LAYOUT WITH DETECTOR LOOP MANUFACTURER.
2. CENTER VEHICLE DETECTOR LOOP IN DRIVE THRU LANE. INSTALL PER MFR. RECOMMENDATIONS.
3. NO STEEL (REBAR OR ELECTRICAL WIRE) SHALL BE USED WITHIN 2' OF LOOP.
4. DETECTOR LOOP MANUFACTURERS:
   DETECTOR LOOPS MAY BE BY ONE OF THE FOLLOWINGS COMPANIES OR EQUAL.
   3M: 1–800–328–0033
   HME: 1–800–848–4468
5. DETECTOR LOOP MATERIAL:
   PVC TUBING 1/2" I.D. 100 PSI LOOP MADE FROM ONE LENGTH OF THIN FOURTEEN GAUGE STRANDED WIRE. LEAD–IN IS PRE–TWISTED AT FACTORY.
6. DETECTOR LOOP CONSTRUCTION:
   FORMED WITH ONE CONTINUOUS LENGTH OF PVC WITH NO SHARP CORNERS AS DETAILED. WIRE LOOPED, FORMED, & PIGTAILED AS DETAILED.

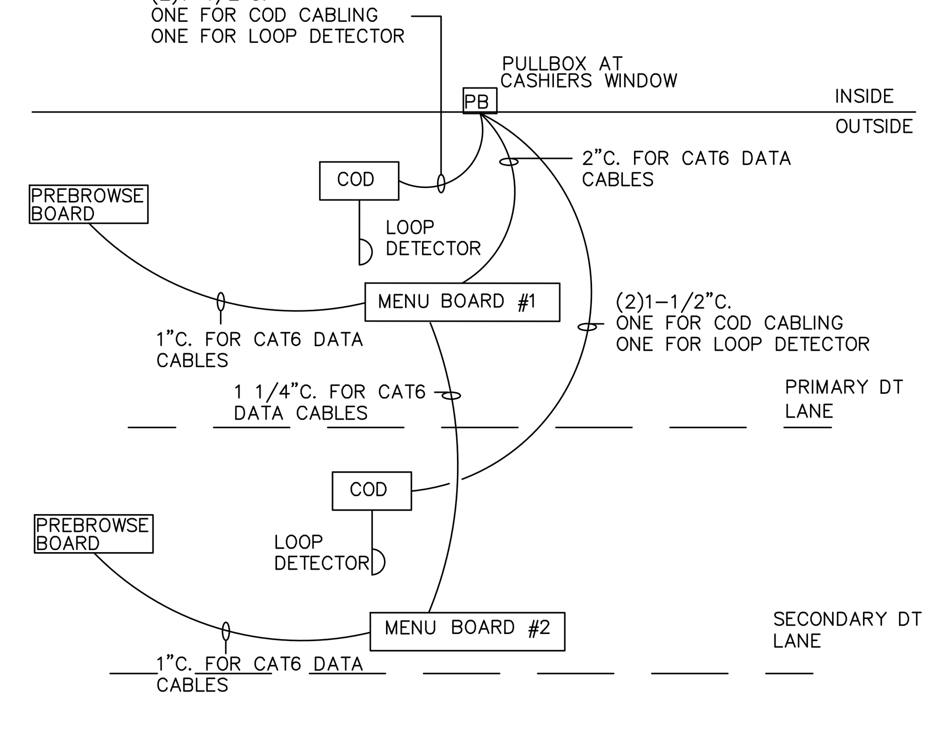


A – C.O.D. DETECTOR LOOP



B – DT WINDOW DETECTOR LOOP

2 ODMB **DETECTOR LOOP DETAILS**
SCALE: NOT TO SCALE



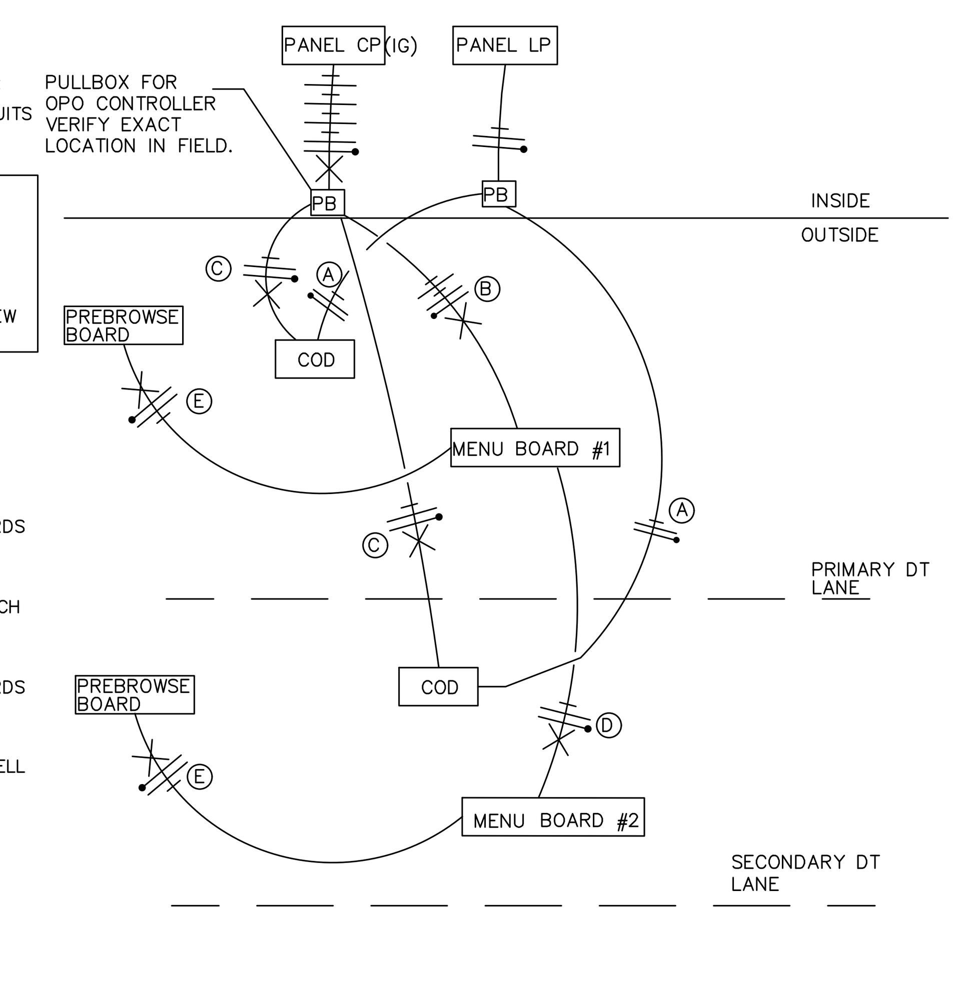
3 ODMB **DT LOW VOLTAGE CONDUIT DIAGRAM**
SCALE: NOT TO SCALE

NOTE:
* VERIFY EXACT CIRCUITS & QUANTITIES OF CIRCUITS WITH PANEL SCHEDULES AND MANUFACTURERS INSTALLATION INSTRUCTIONS.

FOR EXISTING LOCATIONS:
* VERIFY EXISTING CP PANEL HAS AMPACITY AND SUFFICIENT SPARES/SPACE FOR TWO (2) NEW 20A/1P CIRCUITS. UPGRADE CP PANEL TO 42 CIRCUITS IF NECESSARY.

* VERIFY EXISTING PULLBOXES ARE SIZED FOR NEW CONDUIT ROUTING. MODIFY PULLBOXES IF NECESSARY.

(A) 2#12 & 1#12 GND. TO LP–1 FOR COD CANOPY LIGHTING.
(B) 4#12 & 1#12 GND & 1#12 ISOLATED GND., TO CP FOR ISOLATED GROUND POWER TO MENUBOARDS AND MEDIA PLAYERS.
(C) 2#12 & 1#12 GND & 1#12 ISOLATED GND., TO CP FOR ISOLATED GROUND POWER TO COD'S. EACH COD SHALL BE ON ITS OWN SEPARATE CIRCUIT.
(D) 2#12 & 1#12 GND & 1#12 ISOLATED GND., TO CP FOR ISOLATED GROUND POWER TO MENUBOARDS AND MEDIA PLAYERS.
(E) 2#12 & 1#12 GND & 1#12 ISOLATED GND., TO CP FOR ISOLATED GROUND POWER TO FOR PRESELL BOARDS AND MEDIA PLAYER.



4 ODMB **DRIVE THRU POWER DIAGRAM**
SCALE: NOT TO SCALE

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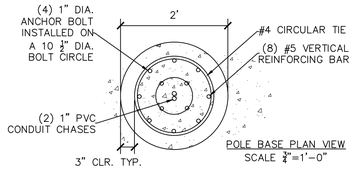
DWG: F:\2019\1001–1500\019–1175\40–Design\AutoCAD\Final Plans\Sheets\GNCV\C_DTL01_0191175.dwg USER: ryenni
DATE: Feb 20, 2020 3:47pm XREFS: C_PTBLK_0191175

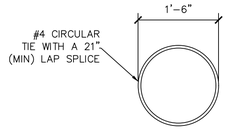
DESIGN CRITERIA
AASHTO "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, FIFTH EDITION, 2009

FOUNDATION DESIGN PARAMETERS
1. MAXIMUM LIGHT POLE BASE REACTIONS:
   BASE MOMENT = 16,845 LBS–FT
   BASE SHEAR = 978 LBS
2. MAXIMUM WIND SPEED (3 SECOND GUST) = 120 MPH
3. MAXIMUM REQUIRED SOIL PARAMETERS:
   COHESIVE SOILS:
   – SHEAR STRENGTH = 750 LBS/FT
   – 6" MAXIMUM DEPTH OF DISTURBED SOIL OR TOP SOIL
   COHESIONLESS SOILS:
   – ANGLE OF INTERNAL FRICTION = 27 DEGREES
   – WATER TABLE SHALL BE LOCATED BELOW THE BOTTOM OF THE FOUNDATION
   – 6" MAXIMUM DEPTH OF DISTURBED SOIL OR TOP SOIL
4. THE SOILS REPORT SHALL BE REVIEWED BY THE ENGINEER OF RECORD TO CONFIRM THAT THE MINIMUM SOIL PARAMETERS ARE MET OR EXCEEDED BEFORE THIS DESIGN IS USED. IF THE MINIMUM SOIL PARAMETERS ARE NOT MET, THIS DESIGN SHALL NOT BE USED.
5. THE ENGINEER OF RECORD SHALL REVIEW THE MAXIMUM BASE REACTIONS AND DESIGN WIND SPEED FOR THE LIGHT POLE TO BE INSTALLED TO DETERMINE IF THE FOUNDATION'S MAXIMUM DESIGN LOADS HAVE NOT BEEN EXCEEDED. THIS FOUNDATION DESIGN SHALL NOT BE USED IF THE MAXIMUM DESIGN LOADS OR WIND SPEEDS HAVE BEEN EXCEEDED.
6. THIS FOUNDATION DESIGN SHALL NOT BE USED IN LOCATIONS WHICH ARE CLOSER THAN 8FT FROM A RETAINING WALL.
7. THIS FOUNDATION DESIGN SHALL NOT BE USED AT LOCATIONS WHERE THE GROUND SLOPE EXCEEDS 4 INCHES PER FOOT.

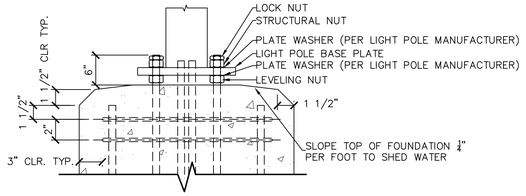
GENERAL NOTES:
1. CONCRETE COMPRESSIVE STRENGTH (F'C) SHALL BE A MINIMUM OF 3000 PSI.
2. ANCHOR BOLTS SHALL BE ASTM F1554 GRADE 55, HOT DIP GALVANIZED PER ASTM F2329. THEY SHALL BE STRAIGHT AND NOT "I" SHAPED.
3. REINFORCING STEEL SHALL BE ASTM A615 GRADE 60.
4. NUTS SHALL BE HEAVY HEX ASTM A563 GRADE DH, HOT DIP GALVANIZED PER ASTM A153.
5. PLATE SHALL BE ASTM A572 GRADE 50, HOT DIP GALVANIZED PER ASTM A153
6. LOCK NUT SHALL BE HOT DIP GALVANIZED PER ASTM A153
7. ALL REINFORCING PER GENERAL CONTRACTOR.
8. STANDARD LOT POLE IS FULLY, HOT DIPPED, GALVANIZED STEEL POLE WITH A PLATINUM COLOR POWDER COAT. PAINTED STEEL LOT LIGHTS ARE NOT APPROVED.



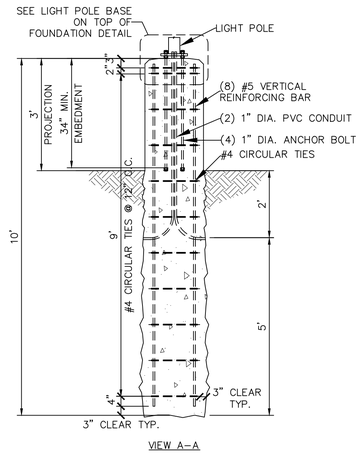
POLE BASE PLAN VIEW
SCALE ¾"=1'–0"



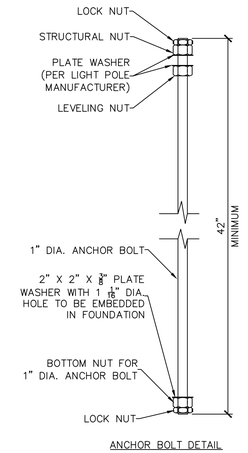
CIRCULAR TIE DETAIL



LIGHT POLE BASE ON TOP OF FOUNDATION



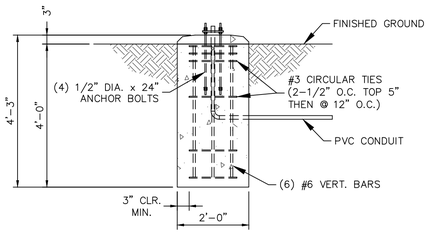
VIEW A–A



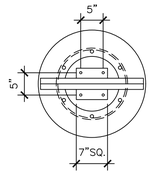
ANCHOR BOLT DETAIL

1 C6.4 **LIGHT POLE FOUNDATION**
SCALE: NOT TO SCALE

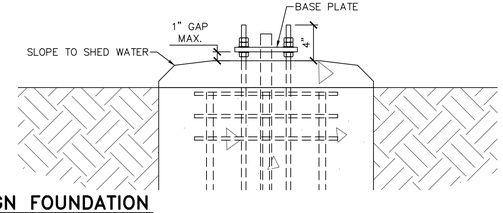
NOTE:
- DESIGN CODES:
  IBC 2012
  ASCE 7–10
  ACI 318–11
  AISC 360–10 & AISC 341–10
  AWS D1.1
- WIND SPEED: (110 MPH – 3 SEC. GUST)
  EXPOSURE C
- DESIGN LOADS DERIVED FROM THESE CODES AND FORCES:
  AXIAL – 180#
  SHEAR – 215#
  MOMENT – 487#'
- USE CONCRETE WITH A 3000 PSI MINIMUM COMPRESSIVE STRENGTH (f'c).
- PIER DEPTHS REQUIRED ARE MINIMUMS. ALL PIERS TO EXTEND TO FROST DEPTH AS DETERMINED BY LOCAL JURISDICTION.
- TOP OF PIERS SHALL BE SLOPED SUCH THAT MOISTURE CANNOT ACCUMULATE.
- ELECTRICAL CONTRACTOR TO PROVIDE INFORMATION ON CONDUIT AND ELECTRICAL REQUIREMENTS.
- MINIMUM ALLOWABLE LATERAL SOIL BEARING PRESSURE 100 PSF/FT OF DEPTH (x2)
- TOP 6" OF SOIL NEGLECTED IN EMBEDMENT DEPTH CALCULATIONS (EMBEDMENT DEPTHS ARE SHOWN FROM GRADE).
- PROVIDE A MINIMUM OF 3" CONCRETE COVER FOR ALL EMBEDDED STEEL.
- ALL REINFORCING STEEL BY GENERAL CONTRACTOR.

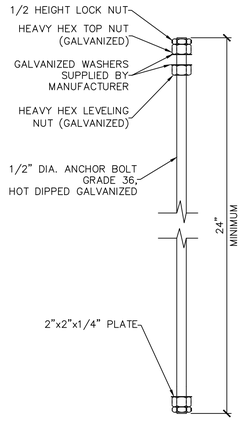


NOTES:
- USE F1554 GRADE 36 BOLTS MINIMUM
- USE HOT DIPPED GALVANIZED BOLTS
- ANCHOR BOLTS TO BE SET IN ACCORDANCE WITH AISC CODE OF STANDARD PRACTICE
- ANCHOR RODS, NUTS AND WASHERS SHALL BE SHIPPED AS AN ASSEMBLY FROM THE SIGN/LIGHTING MANUFACTURER
- DO NOT CUT ANCHOR BOLTS AFTER INSTALLATION OF POLE



ANCHOR BOLT PATTERN



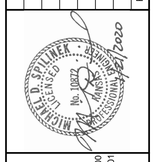


ANCHOR BOLT DETAIL

2 C6.4 **DIRECTIONAL ENTRANCE AND EXIT SIGN FOUNDATION**
SCALE: NOT TO SCALE

DWG: F:\2019\1001–1500\019–1175\40–Design\AutoCAD\Final Plans\Sheets\GNCV\C_DTL01_0191175.dwg USER: ryenni
DATE: Jan 23, 2020 10:45am XREFS: C_PTBLK_0191175

BY	DESCRIPTION	DATE	REV
RMY	CONSTRUCTION DOCUMENTS	01.22.2020	



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PREPARED FOR:
McDonald's USA, LLC

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DRAWN BY	REVIEWED BY	DATE ISSUED
RMY	MAP	1/22/2020
STD ISSUE DATE 1/22/2020		

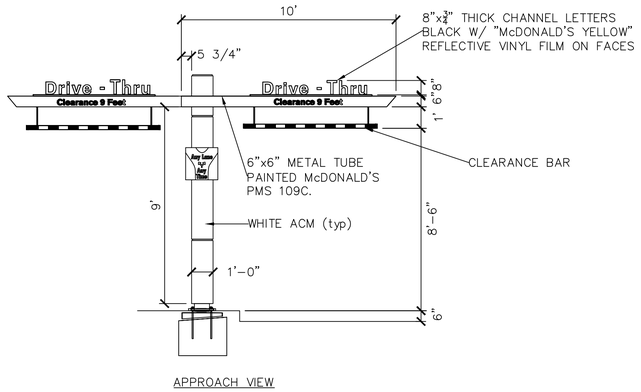
TITLE: DETAIL

DESCRIPTION: 2018 PROTOTYPE 45'X97' + 10 EXPANSION

SITE ID: 015–0071

SITE ADDRESS: 605 S 7TH ST, KANSAS CITY, KS 66105

SHEET NO.: 015–0071.00.0
C6.4

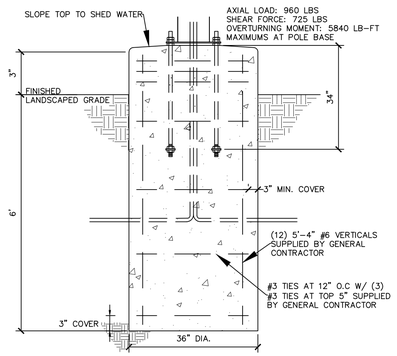


APPROACH VIEW

ILLUMINATION:	N/A
SHIP WEIGHT:	840 LBS.
OTHER:	NON-ILLUMINATED CLEARANCE SIGN WITH SPRING BREAK AWAY
LOADED CLEARANCE ARM	ADJUSTABLE HANGING BAR

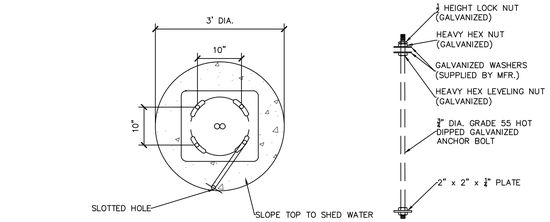
1 / C6.5 **DRIVE-THRU GATEWAY (DOUBLE)**
SCALE: NOT TO SCALE

NOTE:
-DESIGN CODES: IBC 2012, ASCE 7-10, ACI 318-11, AISC 13TH EDITION, AWS D1.1
-WIND SPEED, 110 MPH, 3 SEC GUST, EXPOSURE C
-DESIGN LOADS DERIVED FROM THESE CODES AND FORCES
AXIAL LOAD: 960 LBS
SHEAR FORCE: 725 LBS
OVERTURNING MOMENT: 5840 LB-FT
-USE 3000 PSI CONCRETE COMPRESSIVE STRENGTH (f'c)
-PIER DEPTHS REQUIRED ARE MINIMUMS. ALL PIERS TO EXTEND TO FROST DEPTH AS DETERMINED BY LOCAL JURISDICTION.
-TOP OF PIERS SHALL BE SLOPED SUCH THAT MOISTURE CANNOT ACCUMULATE.
-ELECTRICAL CONTRACTOR TO PROVIDE INFORMATION ON CONDUIT AND ELECTRICAL REQUIREMENTS.
-MINIMUM ALLOWABLE LATERAL SOIL BEARING PRESSURE 100 PSF/FT OF DEPTH x2
-TOP 6" OF SOIL NEGLECTED IN EMBEDMENT DEPTH CALCULATIONS (EMBEDMENT DEPTHS SHOWN ARE FROM GRADE)
-3" MIN. CONCRETE COVER FOR REINFORCEMENT



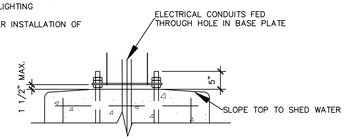
A DBL GATEWAY

NOTES:
-TOP OF PIERS SHALL BE SLOPED SUCH THAT MOISTURE CANNOT ACCUMULATE
-HOT DIPPED GALVANIZED BOLTS
-F1554 GRADE 36 ANCHOR BOLTS
-ANCHOR BOLTS TO BE SET IN ACCORDANCE WITH AISC CODE OF STANDARD PRACTICE
-ANCHOR RODS, NUTS, AND WASHERS SHALL BE SHIPPED AS AN ASSEMBLY FROM THE SIGN/LIGHTING MANUFACTURER
-DO NOT CUT ANCHOR BOLTS AFTER INSTALLATION OF POLE



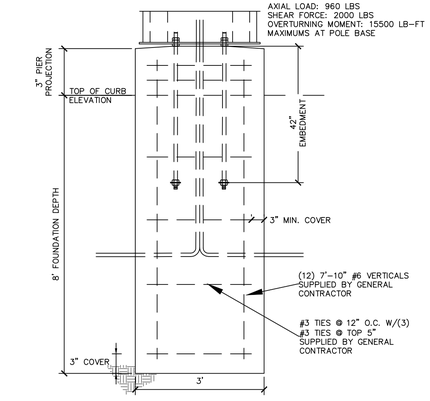
B ANCHOR BOLT PATTERN

NOTES:
-TOP OF PIERS SHALL BE SLOPED SUCH THAT MOISTURE CANNOT ACCUMULATE.
-ANCHOR RODS, NUTS, AND WASHERS SHALL BE SHIPPED AS AN ASSEMBLY FROM THE SIGN/LIGHTING MANUFACTURER
-DO NOT CUT ANCHOR BOLTS AFTER INSTALLATION OF POLE



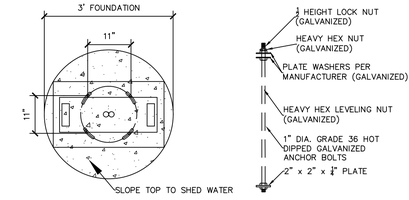
C CONNECTION DETAILS

NOTE:
-DESIGN CODES: IBC 2012, ASCE 7-10, ACI 318-11, AISC 13TH EDITION, AWS D1.1
-WIND SPEED, 175 MPH, 3 SEC GUST, EXPOSURE C
-DESIGN LOADS DERIVED FROM THESE CODES AND FORCES
AXIAL LOAD: 2600 LBS
SHEAR FORCE: 2000 LBS
OVERTURNING MOMENT: 15500 LB-FT
-USE 3000 PSI CONCRETE COMPRESSIVE STRENGTH (f'c)
-PIER DEPTHS REQUIRED ARE MINIMUMS. ALL PIERS TO EXTEND TO FROST DEPTH AS DETERMINED BY LOCAL JURISDICTION.
-TOP OF PIERS SHALL BE SLOPED SUCH THAT MOISTURE CANNOT ACCUMULATE.
-ELECTRICAL CONTRACTOR TO PROVIDE INFORMATION ON CONDUIT AND ELECTRICAL REQUIREMENTS.
-MINIMUM ALLOWABLE LATERAL SOIL BEARING PRESSURE 100 PSF/FT OF DEPTH x2
-TOP 6" OF SOIL NEGLECTED IN EMBEDMENT DEPTH CALCULATIONS (EMBEDMENT DEPTHS SHOWN ARE FROM GRADE)
-3" MIN. CONCRETE COVER FOR ALL EMBEDDED STEEL
-FOUNDATION IS DESIGNED FOR SINGLE OR DOUBLE POLE COLUMNS
-ALL REINFORCING STEEL BY GENERAL CONTRACTOR



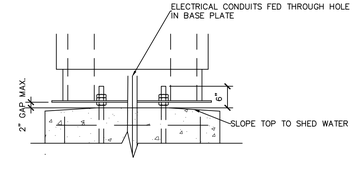
A ORDER HERE CANOPY

NOTES:
-TOP OF PIERS SHALL BE SLOPED SUCH THAT MOISTURE CANNOT ACCUMULATE
-USE F1554 GRADE 36 BOLTS MINIMUM
-ANCHOR BOLTS TO BE SET IN ACCORDANCE WITH AISC CODE OF STANDARD PRACTICE
-ANCHOR RODS, NUTS, AND WASHERS SHALL BE SHIPPED AS AN ASSEMBLY FROM THE SIGN/LIGHTING MANUFACTURER
-DO NOT CUT ANCHOR BOLTS AFTER INSTALLATION OF POLE



B ANCHOR BOLT PATTERN

NOTES:
-TOP OF PIERS SHALL BE SLOPED SUCH THAT MOISTURE CANNOT ACCUMULATE
-ANCHOR RODS, NUTS, AND WASHERS SHALL BE SHIPPED AS AN ASSEMBLY FROM THE SIGN/LIGHTING MANUFACTURER
-DO NOT CUT ANCHOR BOLTS AFTER INSTALLATION OF POLE



C CONNECTION DETAILS

2 / C6.5 **ORDER HERE DRIVE-THRU CANOPY FOUNDATION**
SCALE: NOT TO SCALE

BY	DESCRIPTION	DATE	REV
RMY	CONSTRUCTION DOCUMENTS	01.22.2020	

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Manhattan, Kansas 66502 FAX 785.539.6901
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PREPARED FOR: McDonald's USA, LLC

DRAWN BY	RMY
STD ISSUE DATE	1/22/2020
REVIEWED BY	MAP
DATE ISSUED	1/22/2020

SHEET NO. C6.5
TITLE DETAIL
015-0071.00.0
DESCRIPTION 2018 PROTOTYPE 45'X97' + 10 EXPANSION
SITE ID 015-0071
SITE ADDRESS 605 S 7TH ST, KANSAS CITY, KS 66105

DWG: F:\2019\1001-1500\019-1175\40-Design\AutoCAD\Final Plans\Sheets\GNCV\C_DTL01_0191175.dwg USER: ryenni
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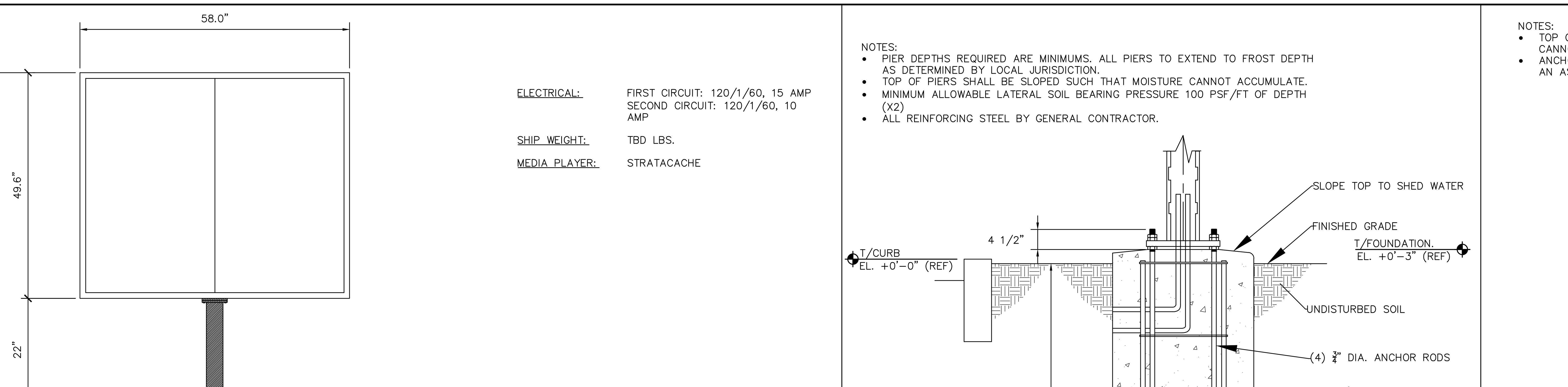

ELECTRICAL: FIRST CIRCUIT: 120/1/60, 15 AMP SECOND CIRCUIT: 120/1/60, 10 AMP

SHIP WEIGHT: TBD LBS.

MEDIA PLAYER: STRATACACHE

GENERAL NOTES
- THE FOLLOWING CODES WERE USED IN DESIGN:
  - IBC 2012
  - ASCE 7-10
  - ACI 318-11
  - AISC 360-10 & AISC 341-10
  - AWS D1.1
- WIND SPEED 110 MPH (ULTIMATE WIND SPEED)
  - EXPOSURE C
- DESIGN LOADS DERIVED FROM THESE CODES AND FORCES
  - AXIAL- 1200 #
  - SHEAR- 655 #
  - MOMENT- 2640 #'
- ALL FOOTING EXCAVATIONS ARE TO BE CLEAR OF WATER AND FOREIGN MATTER BEFORE PLACING CONCRETE
- MINIMUM ALLOWABLE LATERAL SOIL BEARING PRESSURE OF 100 PSF/FT (X2)
- SITE SOIL CONDITIONS TO BE CONFIRMED BY GEOTECHNICAL ENGINEER, IF ASSUMED SOIL CONDITIONS ARE NOT PRESENT, FOUNDATION SHALL BE DESIGNED BY A LICENSED STRUCTURAL ENGINEER TAKING IN TO ACCOUNT ACTUAL SITE SOIL CONDITIONS
- TOP 6" OF SOIL NEGLECTED IN EMBEDMENT DEPTH CALCULATIONS (EMBEDMENT DEPTHS SHOWN ARE FROM GRADE)
- ELECTRICAL CONTRACTOR TO PROVIDE INFORMATION ON CONDUIT AND ELECTRICAL REQUIREMENTS

CONCRETE:
- ALL FOOTINGS SHALL BEAR ON FIRM UNDISTURBED RESIDUAL SOIL AND/OR ENGINEERED EARTH FILL COMPACTED TO 98% OF ITS MAXIMUM DRY DENSITY AS PER ASTM D 698-70 (STANDARD PROCTOR) UNLESS NOTED OTHERWISE
- ALL PIERS TO EXTEND TO FROST DEPTH AS DETERMINED BY LOCAL JURISDICTION
- TOP OF PIERS SHALL BE SLOPED SUCH THAT MOISTURE CANNOT ACCUMULATE
- MINIMUM CONCRETE STRENGTH (F'C=3,000 PSI) SHALL CONFORM WITH MCDONALD'S CAST-IN-PLACE CONCRETE SPECIFICATIONS SECTION 2.13-A
- USE OF ADMIXTURES SHALL CONFORM TO MCDONALD'S CAST-IN-PLACE CONCRETE SPECIFICATION SECTION 2.6
- AIR ENTERTAINMENT SHALL CONFORM WITH MCDONALD'S CAST-IN-PLACE CONCRETE SPECIFICATIONS 2.6-A AND 2.13-A
- WATER CONTENT RATIO SHALL CONFORM TO MCDONALD'S CAST-IN-PLACE CONCRETE SPECIFICATIONS SECTION 2.13-A
- FOUNDATION CONCRETE TO BE TESTED PER MCDONALD'S CAST-IN-PLACE CONCRETE SPECIFICATIONS SECTION 3.14
- PROVIDE A MINIMUM 3" OF CONCRETE COVER OVER ALL EMBEDDED STEEL.
- REINFORCEMENT PLACEMENT SHALL CONFORM TO MCDONALD'S CAST-IN-PLACE CONCRETE SPECIFICATIONS SECTIONS 3.2 & 3.5 PERFORMED BY GENERAL CONTRACTOR
- ANCHOR RODS TO BE SET IN ACCORDANCE WITH AISC CODE OF STANDARD PRACTICE
- DO NOT PLACE POLES ON CONCRETE UNTIL CONCRETE HAS CURED PER MCDONALD'S CAST-IN-PLACE CONCRETE SPECIFICATION SECTION 3.11-E

STEEL:
- STEEL PIPE SECTION: ASTM A53 OR A252 TYPE E GRADE B (Fy=35 KSI)
- HSS ROUND SECTION: ASTM A500 GRADE B (Fy= 42 KSI)
- HSS SQUARE/RECTANGULAR SECTIONS: ASTM A500 GRADE B (Fy= 46 KSI)
- HEADED ANCHOR RODS ASTM F1554 GR 55, AN ACCEPTABLE ALTERNATIVE IS ASTM F1554 GR 55, S1 WHEN THE EMBEDDED END OF THE ROD IS THREADED AND THE NUT TACK WELDED PRIOR TO GALVANIZATION.
- STEEL ANGLES, CHANNELS, STRUCTURAL SHAPES AND PLATES: ASTM A36
- REINFORCEMENT: ASTM A615 GRADE 60- BY GENERAL CONTRACTOR
- NUTS: ASTM A563A, HEAVY HEX
- WASHERS: ASTM F844 A36
- USE ASTM A153 CLASS C OT DIPPED GALVANIZED BOLTS AND FASTENERS.
- ANCHOR RODS, NUTS, AND WASHERS SHALL BE SHIPPED AS AN ASSEMBLY FROM THE SIGN/LIGHTING MANUFACTURER
- NO FIELD HEATING TO BEND STEEL SHALL BE ALLOWED WITHOUT ENGINEER'S APPROVAL
- DO NOT CUT ANCHOR RODS AFTER INSTALLATION OF POLE
- AFTER INSTALLATION, ALL EXPOSED STEEL SHALL BE PAINTED WITH AN ENAMEL PAINT TO INHIBIT CORROSION
- ANY FIELD WIELDING SHALL FIRST BE VERIFIED BY ENGINEER AND PERFORMED IN ACCORDANCE WITH AWS D1.1
- REFER TO SIGN MANUFACTURER DRAWINGS AND INSTRUCTIONS FOR ADDITIONAL INFORMATION

NOTES:
- PIER DEPTHS REQUIRED ARE MINIMUMS. ALL PIERS TO EXTEND TO FROST DEPTH AS DETERMINED BY LOCAL JURISDICTION.
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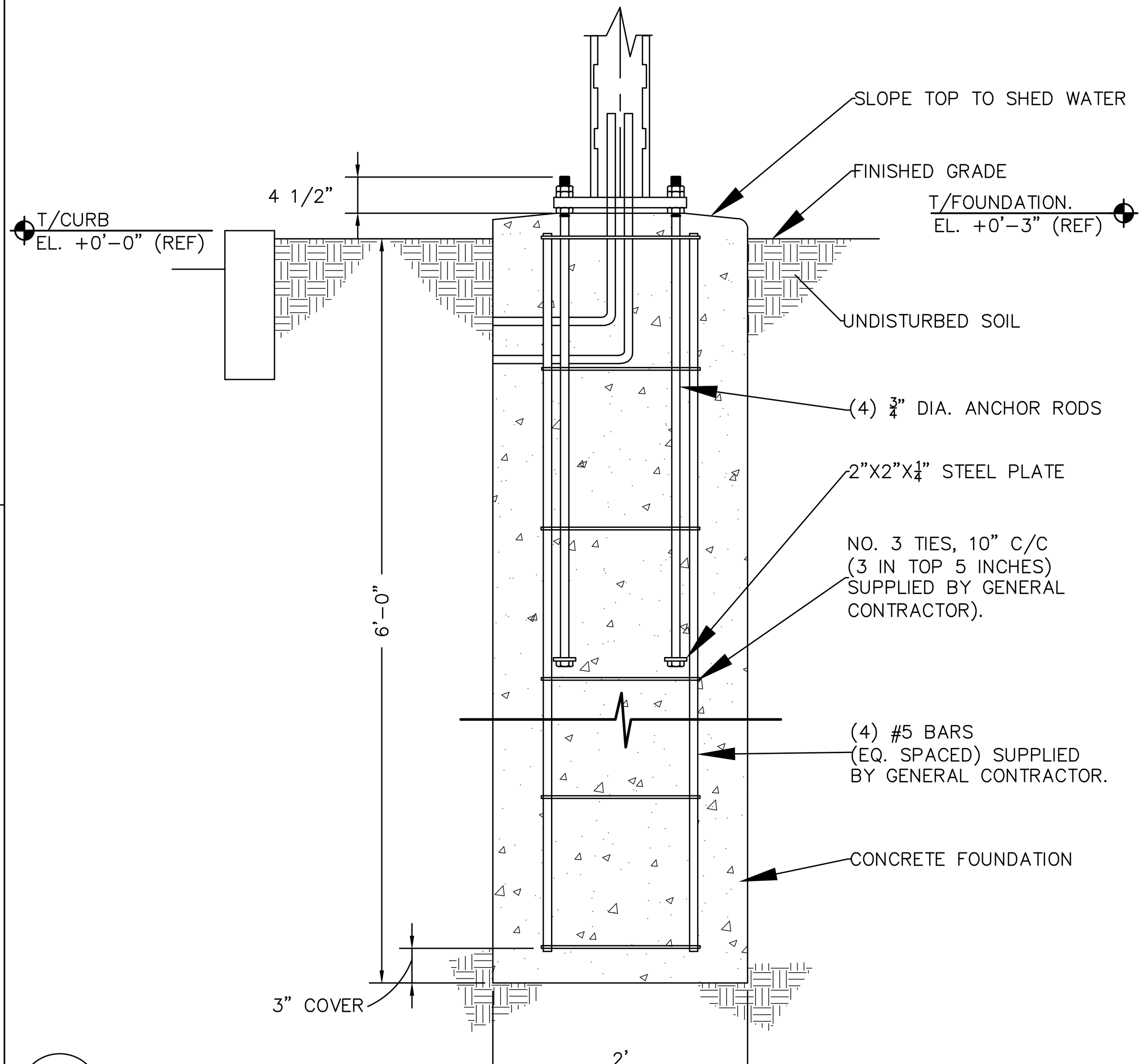
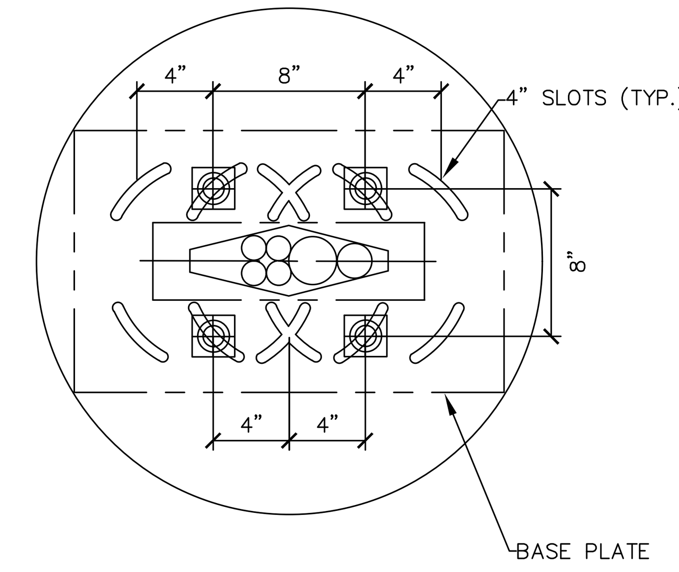
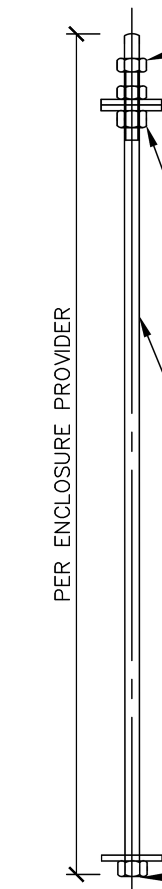
- ALL REINFORCING STEEL BY GENERAL CONTRACTOR.



A FOUNDATION

NOTES:
- TOP OF PIERS SHALL BE SLOPED SUCH THAT MOISTURE CANNOT ACCUMULATE
- ANCHOR RODS, NUTS, AND WASHERS SHALL BE SHIPPED AS AN ASSEMBLY FROM THE ENCLOSURE MANUFACTURER





B ANCHOR BOLT PATTERN

NOTES:
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- ANCHOR RODS, NUTS, AND WASHERS SHALL BE SHIPPED AS AN ASSEMBLY FROM THE ENCLOSURE MANUFACTURER
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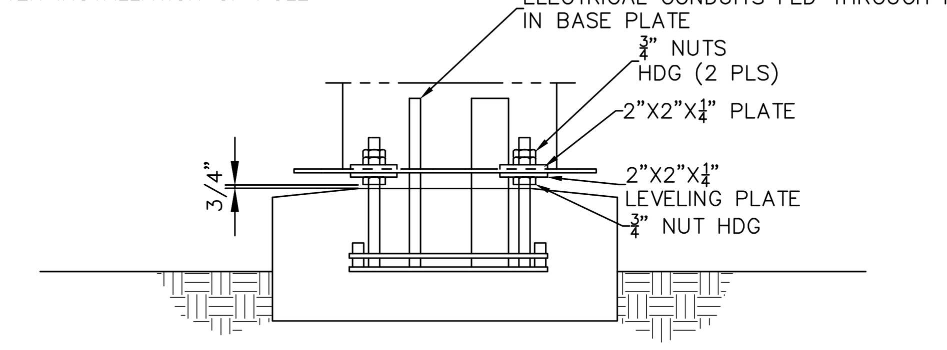
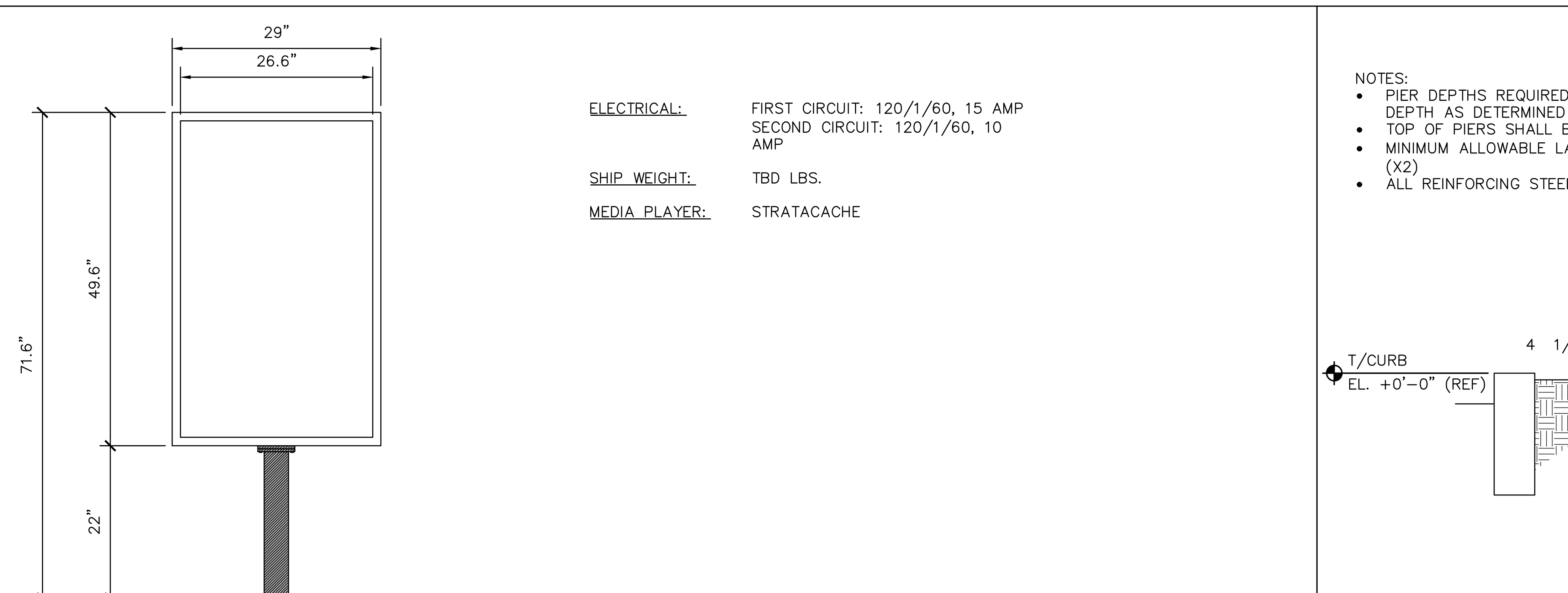


C CONNECTION DETAILS

1 / F1.0 DIGITAL MENU BOARD
SCALE: NONE



ELECTRICAL: FIRST CIRCUIT: 120/1/60, 15 AMP SECOND CIRCUIT: 120/1/60, 10 AMP

SHIP WEIGHT: TBD LBS.

MEDIA PLAYER: STRATACACHE

GENERAL NOTES
- THE FOLLOWING CODES WERE USED IN DESIGN:
  - IBC 2012
  - ASCE 7-10
  - ACI 318-11
  - AISC 360-10 & AISC 341-10
  - AWS D1.1
- WIND SPEED 110 MPH (ULTIMATE WIND SPEED)
  - EXPOSURE C
- DESIGN LOADS DERIVED FROM THESE CODES AND FORCES
  - AXIAL- 350 #
  - SHEAR- 350 #
  - MOMENT- 1390 #'
- ALL FOOTING EXCAVATIONS ARE TO BE CLEAR OF WATER AND FOREIGN MATTER BEFORE PLACING CONCRETE
- MINIMUM ALLOWABLE LATERAL SOIL BEARING PRESSURE OF 100 PSF/FT (X2)
- SITE SOIL CONDITIONS TO BE CONFIRMED BY GEOTECHNICAL ENGINEER, IF ASSUMED SOIL CONDITIONS ARE NOT PRESENT, FOUNDATION SHALL BE DESIGNED BY A LICENSED STRUCTURAL ENGINEER TAKING IN TO ACCOUNT ACTUAL SITE SOIL CONDITIONS
- TOP 6" OF SOIL NEGLECTED IN EMBEDMENT DEPTH CALCULATIONS (EMBEDMENT DEPTHS SHOWN ARE FROM GRADE)
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CONCRETE:
- ALL FOOTINGS SHALL BEAR ON FIRM UNDISTURBED RESIDUAL SOIL AND/OR ENGINEERED EARTH FILL COMPACTED TO 98% OF ITS MAXIMUM DRY DENSITY AS PER ASTM D 698-70 (STANDARD PROCTOR) UNLESS NOTED OTHERWISE
- ALL PIERS TO EXTEND TO FROST DEPTH AS DETERMINED BY LOCAL JURISDICTION
- TOP OF PIERS SHALL BE SLOPED SUCH THAT MOISTURE CANNOT ACCUMULATE
- MINIMUM CONCRETE STRENGTH (F'C=3,000 PSI) SHALL CONFORM WITH MCDONALD'S CAST-IN-PLACE CONCRETE SPECIFICATIONS SECTION 2.13-A
- USE OF ADMIXTURES SHALL CONFORM TO MCDONALD'S CAST-IN-PLACE CONCRETE SPECIFICATION SECTION 2.6
- AIR ENTERTAINMENT SHALL CONFORM WITH MCDONALD'S CAST-IN-PLACE CONCRETE SPECIFICATIONS 2.6-A AND 2.13-A
- WATER CONTENT RATIO SHALL CONFORM TO MCDONALD'S CAST-IN-PLACE CONCRETE SPECIFICATIONS SECTION 2.13-A
- FOUNDATION CONCRETE TO BE TESTED PER MCDONALD'S CAST-IN-PLACE CONCRETE SPECIFICATIONS SECTION 3.14
- PROVIDE A MINIMUM 3" OF CONCRETE COVER OVER ALL EMBEDDED STEEL.
- REINFORCEMENT PLACEMENT SHALL CONFORM TO MCDONALD'S CAST-IN-PLACE CONCRETE SPECIFICATIONS SECTIONS 3.2 & 3.5 PERFORMED BY GENERAL CONTRACTOR
- ANCHOR RODS TO BE SET IN ACCORDANCE WITH AISC CODE OF STANDARD PRACTICE
- DO NOT PLACE POLES ON CONCRETE UNTIL CONCRETE HAS CURED PER MCDONALD'S CAST-IN-PLACE CONCRETE SPECIFICATION SECTION 3.11-E

STEEL:
- STEEL PIPE SECTION: ASTM A53 OR A252 TYPE E GRADE B (Fy=35 KSI)
- HSS ROUND SECTION: ASTM A500 GRADE B (Fy= 42 KSI)
- HSS SQUARE/RECTANGULAR SECTIONS: ASTM A500 GRADE B (Fy= 46 KSI)
- HEADED ANCHOR RODS ASTM F1554 GR 55, AN ACCEPTABLE ALTERNATIVE IS ASTM F1554 GR 55, S1 WHEN THE EMBEDDED END OF THE ROD IS THREADED AND THE NUT TACK WELDED PRIOR TO GALVANIZATION.
- STEEL ANGLES, CHANNELS, STRUCTURAL SHAPES AND PLATES: ASTM A36
- REINFORCEMENT: ASTM A615 GRADE 60- BY GENERAL CONTRACTOR
- NUTS: ASTM A563A, HEAVY HEX
- WASHERS: ASTM F844 A36
- USE ASTM A153 CLASS C OT DIPPED GALVANIZED BOLTS AND FASTENERS.
- ANCHOR RODS, NUTS, AND WASHERS SHALL BE SHIPPED AS AN ASSEMBLY FROM THE SIGN/LIGHTING MANUFACTURER
- NO FIELD HEATING TO BEND STEEL SHALL BE ALLOWED WITHOUT ENGINEER'S APPROVAL
- DO NOT CUT ANCHOR RODS AFTER INSTALLATION OF POLE
- AFTER INSTALLATION, ALL EXPOSED STEEL SHALL BE PAINTED WITH AN ENAMEL PAINT TO INHIBIT CORROSION
- ANY FIELD WIELDING SHALL FIRST BE VERIFIED BY ENGINEER AND PERFORMED IN ACCORDANCE WITH AWS D1.1
- REFER TO SIGN MANUFACTURER DRAWINGS AND INSTRUCTIONS FOR ADDITIONAL INFORMATION

NOTES:
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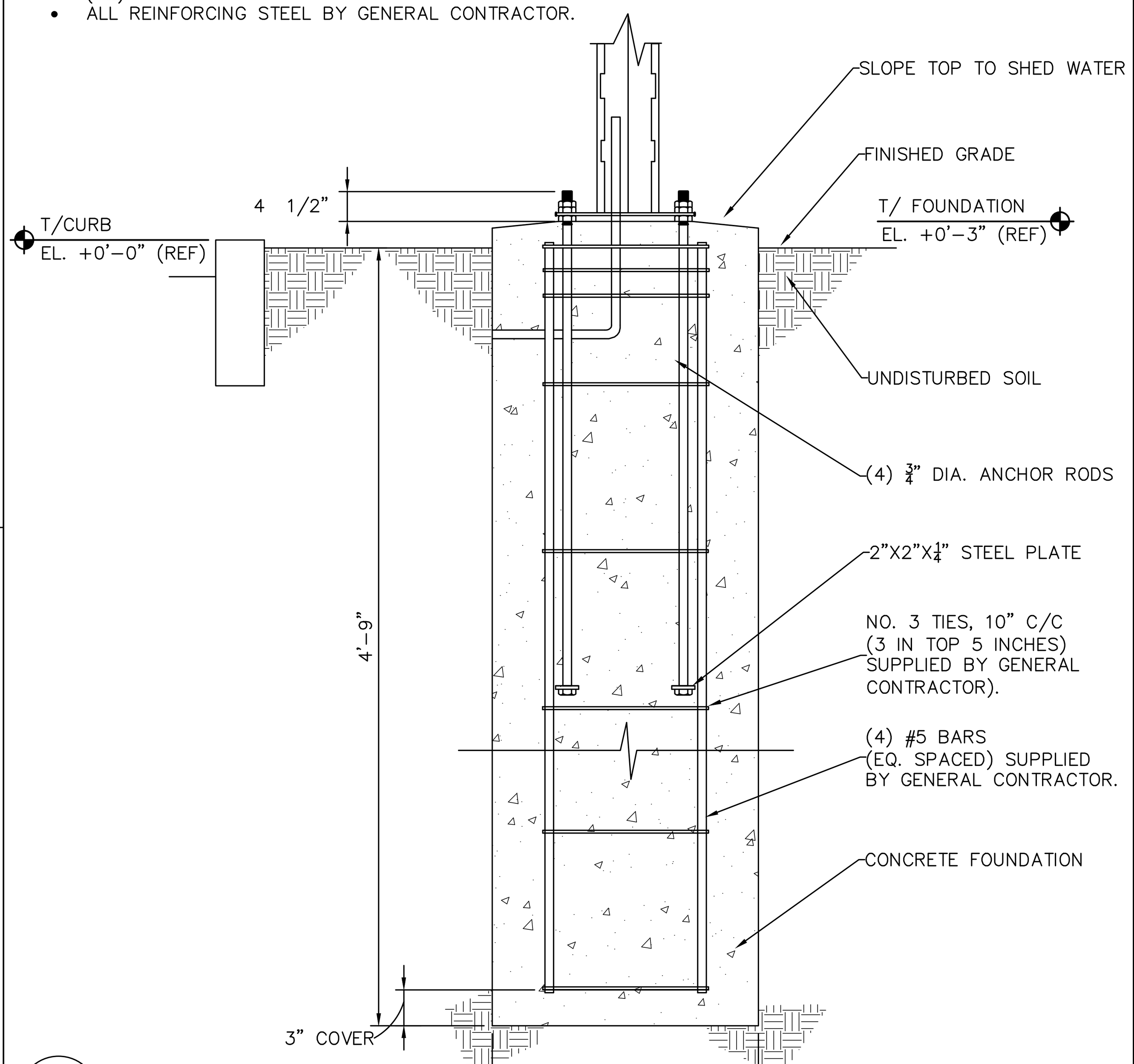
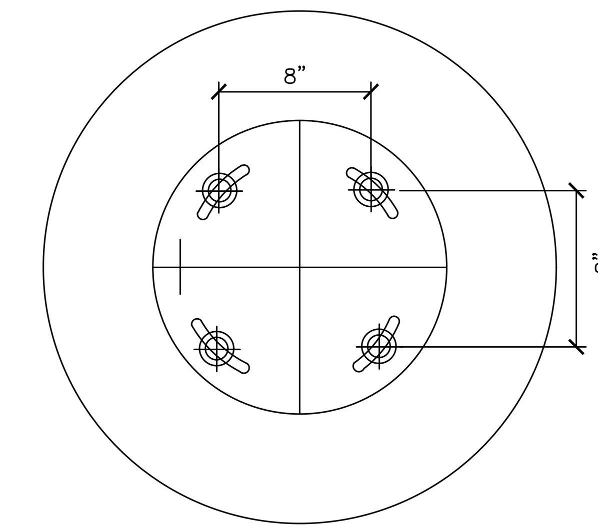
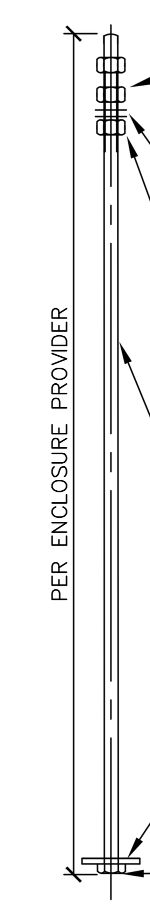
- TOP OF PIERS SHALL BE SLOPED SUCH THAT MOISTURE CANNOT ACCUMULATE.
- MINIMUM ALLOWABLE LATERAL SOIL BEARING PRESSURE 100 PSF/FT OF DEPTH (X2)
- ALL REINFORCING STEEL BY GENERAL CONTRACTOR.



A FOUNDATION

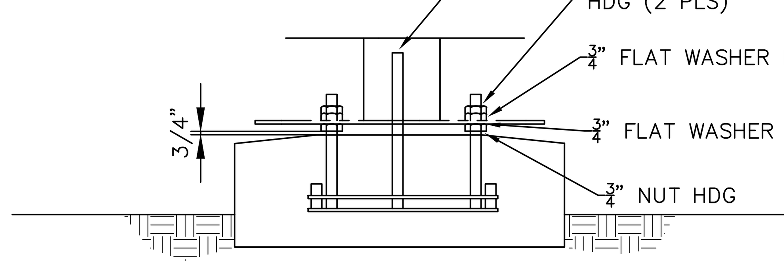
NOTES:
- TOP OF PIERS SHALL BE SLOPED SUCH THAT MOISTURE CANNOT ACCUMULATE
- ANCHOR RODS, NUTS, AND WASHERS SHALL BE SHIPPED AS AN ASSEMBLY FROM THE ENCLOSURE MANUFACTURER





B ANCHOR BOLT PATTERN

NOTES:
- TOP OF PIERS SHALL BE SLOPED SUCH THAT MOISTURE CANNOT ACCUMULATE
- ANCHOR RODS, NUTS, AND WASHERS SHALL BE SHIPPED AS AN ASSEMBLY FROM THE ENCLOSURE MANUFACTURER
- DO NOT CUT ANCHOR BOLTS AFTER INSTALLATION OF POLE



C CONNECTION DETAILS

2 / F1.0 DIGITAL PRE-BROWSE BOARD
SCALE: NONE

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DATE: Jan 23, 2020 10:45am XREFS: C_PTBLK_0191175

REV	DATE	DESCRIPTION	BY
	01.22.2020	CONSTRUCTION DOCUMENTS	RMY

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PREPARED FOR:
McDonald's USA, LLC

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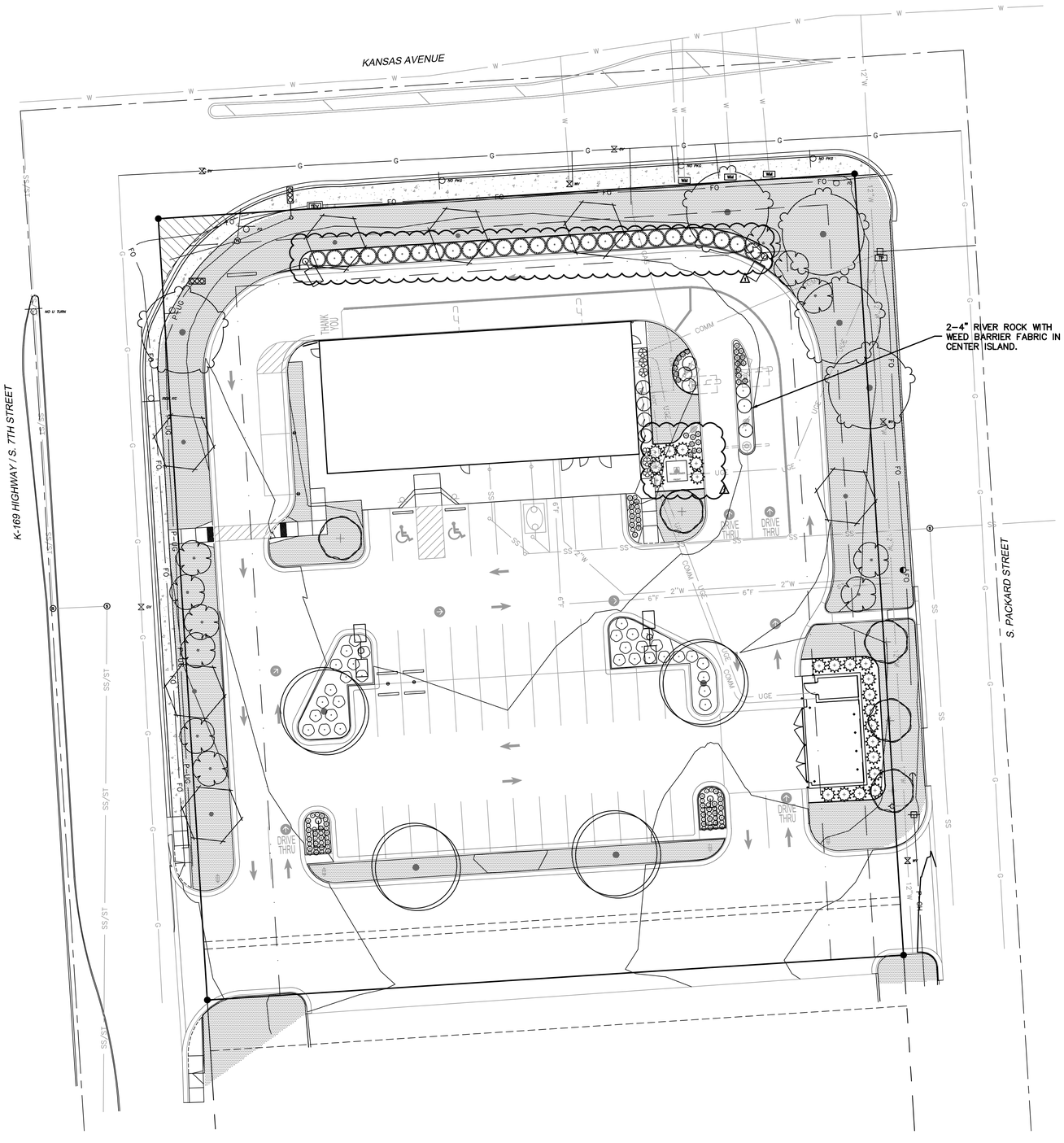
DRAWN BY: RMY
STD ISSUE DATE: 1/22/2020
REVIEWED BY: MAP
DATE ISSUED: 1/22/2020

TITLE: DETAIL
DESCRIPTION: 2018 PROTOTYPE 45'X97' + 10 EXPANSION
SITE ID: 015-0071
SITE ADDRESS: 605 S 7TH ST, KANSAS CITY, KS 66105

SHEET NO. 015-0071.00.0
C6.6



LANDSCAPE CALCULATIONS

OPEN SPACE LANDSCAPING
1 TREE PER 7,000 SF OF SITE
18,590 SF/7,000 SF=
2.65 TREES REQUIRED PER ZONING REQUIREMENTS
COMMERCIAL DESIGN GUIDELINES REQUIRE 75% MULTIPLIER (2 TREES)
5 TREES REQUIRED
6 SHADE TREES PROVIDED

STREET FRONTAGE
1 TREE MINIMUM CAIPER OF 2" (ORNAMENTAL) EVERGREEN TREES MUST BE (AT LEAST 6' TALL WHEN PLANTED) PROVIDED FOR EVERY 30' OF STREET EASEMENT OR FRONTAGE.
700/30'
23 TREES REQUIRED
23 TREES PROVIDED

STREET TREES
STREET TREES SHOULD BE PLANTED NO CLOSER THAN 55' AND NO MORE THAN 65' APART. GROUPINGS OF ORNAMENTAL TREES AND SHRUBS SHOULD BE PLACED IN BETWEEN THE STREET TREES.
700'/60 = 12 SHADE TREES

PARKING LOT
LANDSCAPED ISLAND SEPARATING EACH 20 SPACES. SEE PLAN.

SCREENING
TRASH ENCLOSURE SHALL BE HEAVILY LANDSCAPED AND SCREENED WITH AN ARCHITECTURAL SCREEN WALL THAT IS COMPRISED OF THE SAME BUILDING MATERIALS AS THE PRIMARY STRUCTURE. SEE PLAN.

At least 75 percent of the length of building foundations facing public streets, the exterior of the development, or common spaces must be planted with ornamental plant material such as ornamental trees, flowering shrubs, perennials, and groundcovers.

PLANT SCHEDULE

DECIDUOUS TREES	QTY	BOTANICAL / COMMON NAME	SIZE	CALIPER
	5	ACER GRISEUM PAPERBARK MAPLE	B & B	2" CAL
	4	QUERCUS BICOLOR SWAMP WHITE OAK	B & B	2"
	5	ULMUS X 'FRONTIER' AMERICAN ELM	B & B	2" CAL
	7	ZELKOVA SERRATA 'MUSASHINO' SAWLEAF ZELKOVA	B & B	2" CAL
EVERGREEN TREES	QTY	BOTANICAL / COMMON NAME	SIZE	CALIPER
	22	JUNIPERUS CHINENSIS 'SPARTAN' SPARTAN JUNIPER	B&B 5-6' HT.	
ORNAMENTAL TREES	QTY	BOTANICAL / COMMON NAME	SIZE	CALIPER
	11	AMELANCHIER CANADENSIS 'AUTUMN BRILLIANCE' AUTUMN BRILLIANCE SERVICEBERRY	B&B 5-6' HT.	MULTI-TRUNK
SHRUBS	QTY	BOTANICAL / COMMON NAME	SIZE	
	40	HELIOPSIS HELIANTHOIDES 'TUSCAN SUN' FALSE SUNFLOWER	1 GAL	
EVERGREEN SHRUBS	QTY	BOTANICAL / COMMON NAME	SIZE	
	4	JUNIPERUS CHINENSIS 'GOLD LACE' GOLD LACE JUNIPER	5 GAL	
	27	JUNIPERUS CHINENSIS 'SEA GREEN' SEA GREEN JUNIPER	5 GAL	
	6	JUNIPERUS SABINA 'BUFFALO' BUFFALO JUNIPER	5 GAL	
GRASSES	QTY	BOTANICAL / COMMON NAME	SIZE	
	10	CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER' FEATHER REED GRASS	1 GAL	
	55	CAREX GLAUCA 'BLUE ZINGER' BLUE ZINGER SEDGE	1 GAL	
DECIDUOUS SHRUBS	QTY	BOTANICAL / COMMON NAME	SIZE	
	6	DIERVILLA RIVULARIS 'KODIAK ORANGE' KODIAK ORANGE BUSH-HONEYSUCKLE	5 GAL	
	32	RHUS AROMATICA 'GRO-LOW' GRO-LOW FRAGRANT SUMAC	5 GAL	
GROUND COVERS	QTY	BOTANICAL / COMMON NAME	CONT	
	15,713 SF	FESTUCA ARUNDINACEA TALL FESCUE	SOD	

NOTES

1. ALL LANDSCAPE MUST BE IRRIGATED

N

0' 10' 20' 40'
SCALE IN FEET

REV	DATE	DESCRIPTION	BY
1	02.21.2020	PRELIMINARY/FINAL PLAN REVIEW REVISIONS	RMY
	01.22.2020	CONSTRUCTION DOCUMENTS	RMY

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RMY	MAP
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DESCRIPTION: 2018 PROTOTYPE 45'X97' W/ + 10 EXPANSION
SITE ID: 015-0071
SITE ADDRESS: 605 S 7TH ST, KANSAS CITY, KS 66105
015-0071.00.0
SHEET NO. L1.0

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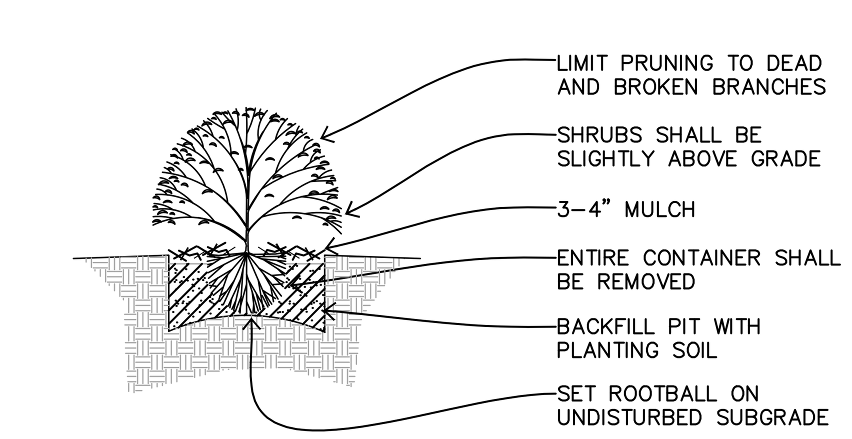
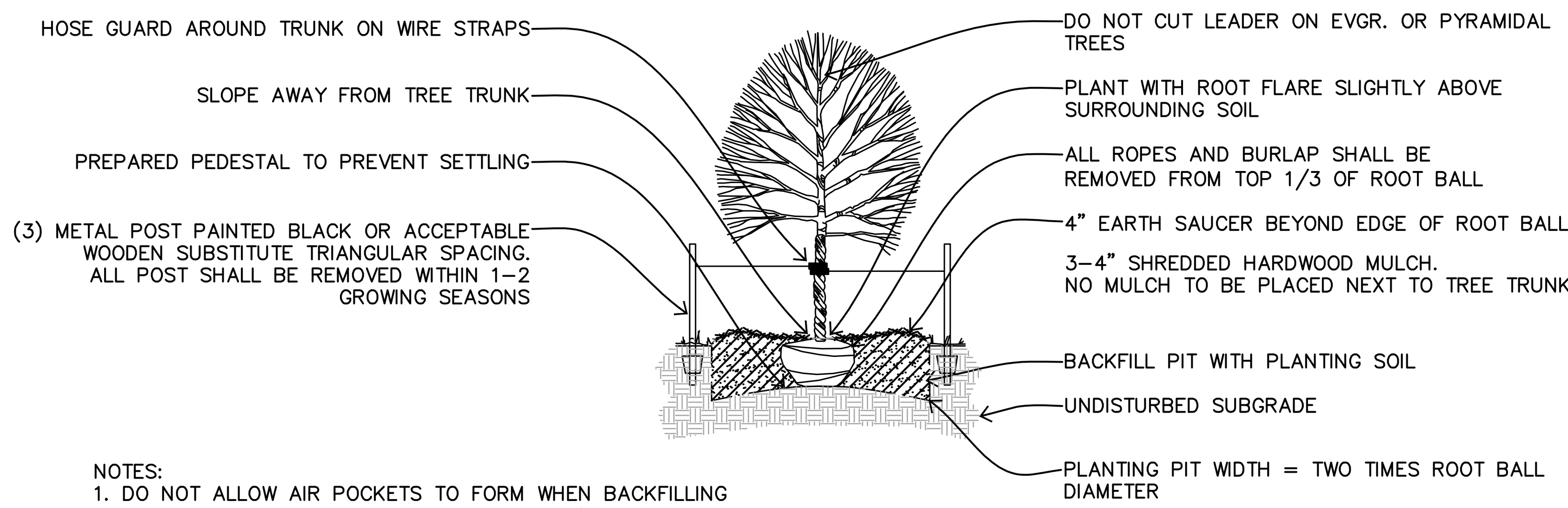


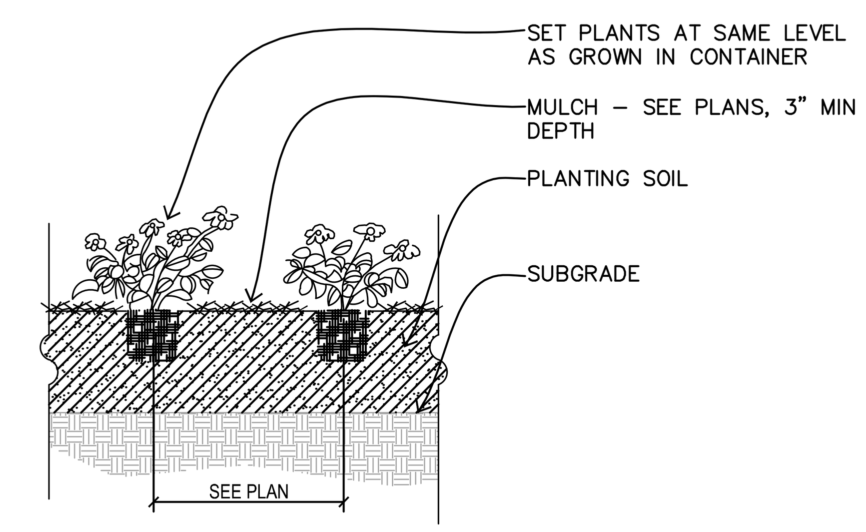
NOTES:
1. MINIMUM ROOT SPREAD TO BE IN ACCORDANCE WITH ANLA STANDARDS
2. PRUNE DAMAGED LIMBS OR ROOTS AFTER INSTALLATION
3. MAKE SURE ROOTS DO NOT DRY OUT DURING INSTALLATION
4. SOAK GENEROUSLY TO COMPACT AND SETTLE

(1) SECTION: SHRUB PLANTING
N.T.S.

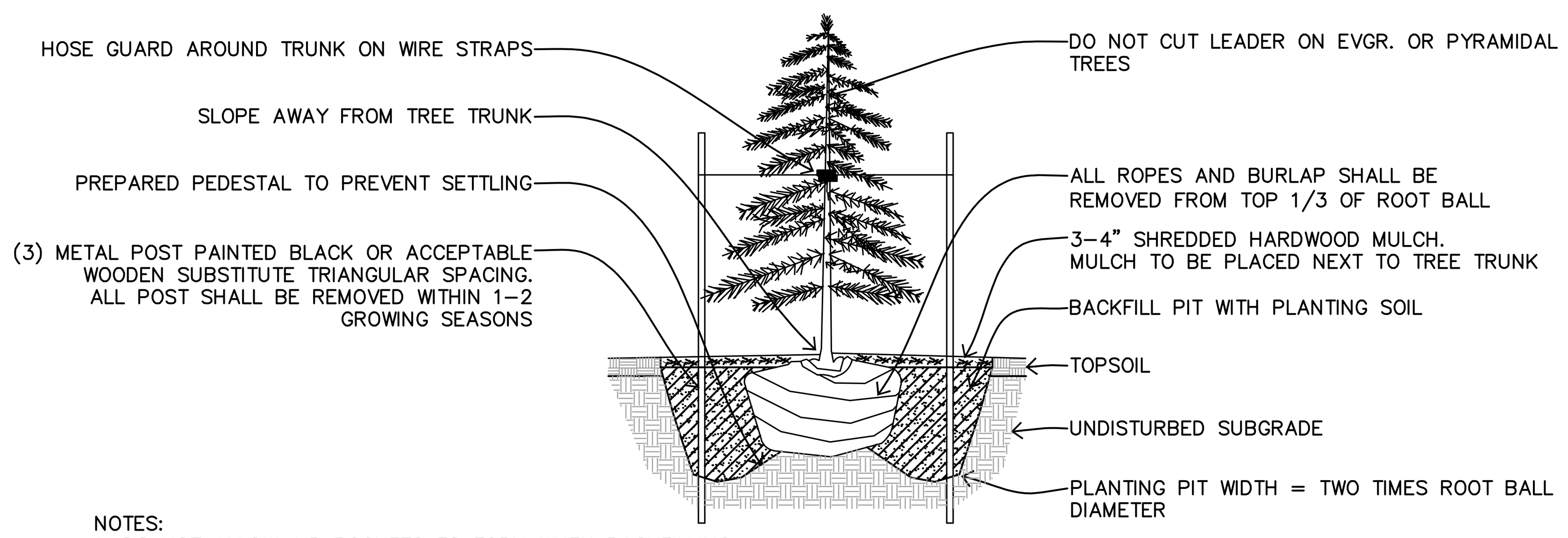


NOTES:
1. DO NOT ALLOW AIR POCKETS TO FORM WHEN BACKFILLING
2. IN AREAS OF TURF, SURROUND BED WITH 6' DIAMETER OF MULCH

(2) SECTION: DECIDUOUS TREE PLANTING
N.T.S.

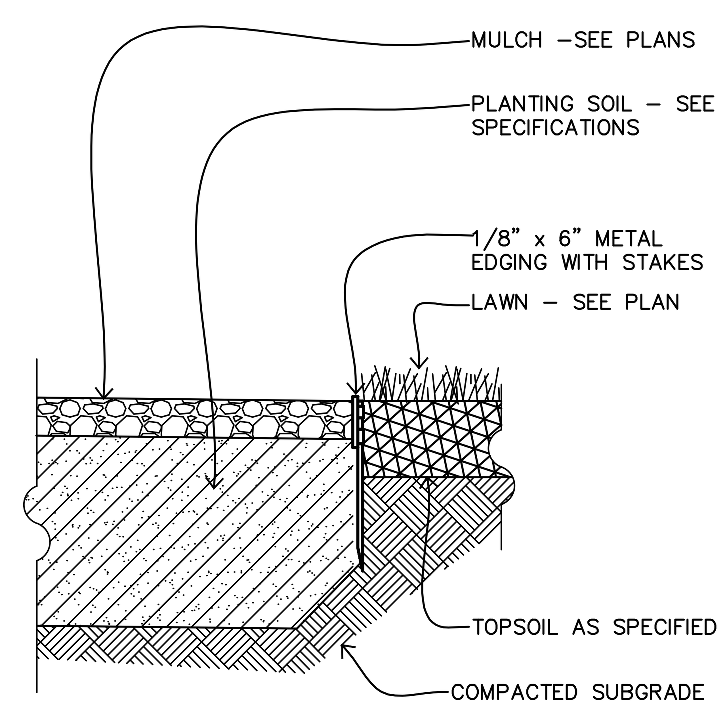


(3) SEC: PERENNIAL & GROUNDCOVER PLANTING
N.T.S.



NOTES:
1. DO NOT ALLOW AIR POCKETS TO FORM WHEN BACKFILLING
2. IN AREAS OF TURF, SURROUND BED WITH 6' DIAMETER OF MULCH

(4) SECTION: EVERGREEN TREE PLANTING
N.T.S.



(5) SECTION: LANDSCAPE EDGER
N.T.S.

PLANTING NOTES:

1. PROVIDE PLANTS TRUE TO SPECIES AND VARIETY AND OTHER FEATURES INDICATED IN THE PLANT SCHEDULE AND COMPLYING WITH ANSI Z60.1 "AMERICAN STANDARD FOR NURSERY STOCK." NOMENCLATURE TO COMPLY WITH "NATIONAL LIST OF SCIENTIFIC PLANT NAMES."
2. ALL PLANTS ARE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT OR ENGINEER DURING AND AFTER INSTALLATION. ALL REJECTED PLANT MATERIAL TO BE PROMPTLY REMOVED FROM THE SITE.
3. CONTRACTOR RESPONSIBLE TO TOTAL AND CONFIRM ALL PLANT MATERIAL QUANTITIES. NUMERICAL QUANTITIES ON PLAN GOVERN OVER PLANT LIST QUANTITIES IN THE EVENT OF A DISCREPANCY.
4. CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATIONS OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IN NOT TO BE RELIED ON AS BEING EXACT OF COMPLETE.
5. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. CONTRACTOR IS RESPONSIBLE FOR RELOCATION OF EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
6. PROVIDE PLANT SIZES, GRADES, AND BALL OR CONTAINER SIZES COMPLYING WITH ANSI z60.1 "AMERICAN STANDARD FOR NURSERY STOCK" FOR TYPES AND FORM OF PLANTS REQUIRED.
7. LANDSCAPE CONTRACTOR RESPONSIBLE FOR REPAIRING OR REPLACING ACCESSORIES THAT FAIL IN MATERIALS AND, OR WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION.
8. LANDSCAPE CONTRACTOR TO REPLACE PLANTINGS THAT DIE, TURN BROWN, OR DEFOLIATES WITHIN ONE YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION. REMOVE REJECTED MATERIAL FROM THE SITE PROMPTLY AND REPLACE WITH MATERIAL OF THE SAME QUANTITY, SPECIES, AND SIZE IN ACCORDANCE WITH THE PLANT LIST SPECIFICATIONS.
9. THE LANDSCAPE CONTRACTOR TO COMPLETELY WARRANTY ALL PLANT MATERAIL FOR A PERIOD OF ONE YEAR BEGINNING AT THE DATE OF SUBSTANTIAL COMPLETION. THE LANDSCAPE CONTRACTOR TO PROMPTLY MAKE ALL REPLACEMENTS BEFORE OR AT THE END OF THE WARRANTY PERIOD AS DIRECTED BY THE LANDSCAPE ARCHITECT OR ENGINEER.
10. UNLESS OTHERWISE NOTED, ALL STAKING AND GUYING MATERIALS ARE TO BE REMOVED FROM PLANT MATERIALS BY THE LANDSCAPE CONTRACTOR WITH 120 DAYS AFTER THE DATE OF PLANTING COMPLETION.
11. CONTRACTOR SHALL NOT LOCATE IRRIGATION EQUIPMENT WITH ROADWAY R.O.W. UNDER ANY CIRCUMSTANCE. CONTRACTOR TO INSPECT EXISTING IRRIGATION SYSTEM AND MAKE ALL NECESSARY MODIFICATIONS TO THE SYSTEM TO PROVIDE WATER FOR NEW AND EXISTING PLANTS.
12. GENERAL CONTRACTOR IS RESPONSIBLE FOR BACKFILLING TO WITH IN .2 FEET OF THE GRADE SHOWN ON THE GRADING PLAN. LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR FINAL DISTRIBUTION OF TOPSOIL & PREPARATION FOR PLANTING WITH FRIABLE, NATURAL TOPSOIL TYPICAL OF THE REGION. TOPSOIL TO BE FREE OF WEEDS AND FOREIGN MATERIAL. DO NOT HANDLE TOPSOIL IN MUDDY OR FROZEN CONDITIONS.
13. LANDSCAPE CONTRACTOR TO RAKE AND SMOOTH TOPSOIL IN ALL AREAS TO BE PLANTED, INCLUDING LAWNS TO PROVIDE A SMOOTH SURFACE WHICH WILL ASSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS AND WALKS. NO SEDIMENT CHARGED RUNOFF SHALL GO INTO TRAVEL LANES OF STATE ROUTE.
14. ALL PLANT BEDS TO RECEIVE 3" DEPTH OF MULCH.
15. UPRIGHT SHRUBS TO BE AT LEAST 24" HT. SPREADING SHRUBS TO HAVE MINIMUM SPREAD OF 18". ALL SHRUBS TO BE SURROUNDED BY MULCH.
16. PLANTING BEDS FOR PERENNIALS, ANNUALS AND GROUNDCOVER ARE TO BE MOUNDED WITH SIDE SLOPES OF 1" VERTICAL PER 1 FOOT HORIZONTAL AND TO BE SURROUNDED BY MULCH.
17. SEE PLANTING SOIL REQUIREMENTS BELOW.
18. CAREFULLY CUT AND REMOVE WEBBING, BURLAP, ROPE AND WIRE BASKETS FROM TOPS AND FROM ALL SIDES OF ROOTBALLS BUT DO NOT REMOVE FROM UNDER ROOTBALLS.
19. REMOVE SURPLUS SOIL AND WASTE MATERIAL INCLUDING EXCESS SOIL, UNSUITABLE SOIL, TRASH AND DEBRIS AND LEGALLY DISPOSE OF THEM OFF OWNER'S PROPERTY.
20. DO NOT MAKE SUBSTITUTIONS; IF SPECIFIED LANDSCAPE MATERIAL IS NOT OBTAINABLE, SUBMIT PROOF OF NON–AVAILABILITY TO THE LANDSCAPE ARCHITECT OR ENGINEER WITH WRITTEN STATEMENTS FROM A MINIMUM OF TWELVE NURSERY (AMERICAN NURSERYMAN'S ASSOCIATION MEMBERS) SOURCES THAT THE PLANT IN QUESTION IS NOT OBTAINABLE IN THE SURROUNDING GEOGRAPHIC REGION.
21. A CONDITION OF APPROVAL IS IF ANY OF THE EXISTING TREES DIE, THEY SHALL BE REPLACED WITH A TREE THAT COMPLIES WITH THE MINIMUM REQUIREMENTS OF THE ORDINANCE.
22. ALL PLANT BEDS SHALL RECEIVE RIVER ROCK MULCH (2" TO 3" NOMINAL SIZE) PLACED TO A DEPTH OF 3" ON TOP OF GEOSYNTHETIC WEED BARRIER.

SOIL SPECIFICATIONS:

ORGANIC COMPOST: WELL DECOMPOSED, STABLE, WEED FREE ORGANIC MATTER SOURCE. IT SHALL BE DERIVED FROM; AGRICULTURE, FOOD, OR INDUSTRIAL RESIDUALS; BIOSOLIDS (TREATED SEWAGE SLUDGE); YARD TRIMMINGS AND LEAF RAKINGS; SOURCE–SEPARATED OR MIXED SOLID WASTE MEETING THE FOLLOWING CRITERIA;
1. 100 PERCENT SHALL PASS THROUGH A 3/8 INCH SCREEN.
2. PH OF 6.0 TO 8.5.
3. MOISTURE CONTENT OF 30% TO 60% BY WEIGHT.
4. NO SUBSTANCES TOXIC TO PLANTS.
5. 1% OR LESS BY WEIGHT MANUFACTURED FOREIGN MATTER.
6. NO OBJECTIONABLE ODOR.
7. SHALL NOT RESEMBLE THE RAW MATERIAL FROM WHICH IT DERIVED.

PLANTING SOIL: A UNIFORM MIX OF, FREE OF PLANT RESIDUE, STONES, STUMPS ROOTS OR SIMILAR OBJECTS LARGER THAN 1 INCH. MIXTURE OF TOPSOIL, ORGANIC COMPOST AND SAND CONSISTING OF THE FOLLOWING:
1. 33% BY VOLUME ORGANIC COMPOST
2. 33% BY VOLUME SAND
3. 33% BY VOLUME TOPSOIL

TOPSOIL: SOIL CLASSIFICATION OF SANDY LOAM OR LOAMY SAND MEETING THE FOLLOWING CRITERIA:
1. 50 TO 85 PERCENT BY WEIGHT SAND (2.0 TO 0.050MM) ACCORDING TO AASHTO T88.
2. 5 TO 50 PERCENT BY WEIGHT SILT (0.050 TO 0.002MM) ACCORDING TO AASHTO T88.
3. 2 TO 5 PERCENT BY WEIGHT CLAY (LESS THAN 0.002MM) ACCORDING TO AASHTO T88.
4. 3 TO 10 PERCENT BY WEIGHT ORGANIC MATTER ACCORDING TO AASHTO T194.
5. TEXTURAL ANALYSIS:
   A. MINIMUM 100% BY WEIGHT PASSING THE 2" SIEVE PER ASTM E11.
   B. MINIMUM 90% BY WEIGHT PASSING THE NO, 4 PER ASTM E11.
   C. MINIMUM 80% BY WEIGHT PASSING THE NO. 10 SIEVE PER ASTM E11.

SOD NOTES:

1. ALL DISTURBED AREAS SHALL BE SODDED WITH TURFGRASS SOD: NUMBER 1 QUALITY/PREMIUM, INCLUDING LIMITATIONS ON THATCH, WEEDS, DISEASES, NEMATODES, AND INSECTS, COMPLYING WITH TPI'S "SPECIFICATIONS FOR TURFGRASS SOD MATERIALS" IN ITS "GUIDELINE SPECIFICATIONS TO TURFGRASS SODDING." FURNISH VIABLE SOD OF UNIFORM DENSITY, COLOR, AND TEXTURE, STRONGLY ROOTED, AND CAPABLE OF VIGOROUS GROWTH AND DEVELOPMENT WHEN PLANTED.

TURFGRASS SPECIES: SEE PLANT SCHEDULE.

2. ALL LAWN AREAS SHALL RECEIVE A MINIMUM 6–INCH DEPTH OF TOPSOIL COMPACTED TO 85% MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT.
3. THE ENTIRE SURFACE TO BE SODDED SHALL BE REASONABLY SMOOTH AND FREE FROM STONES, ROOTS, OR OTHER DEBRIS.
4. SOD SHALL BE MACHINE STRIPPED AT A UNIFORM SOIL THICKNESS OF APPROXIMATELY ONE INCH (PLUS OR MINUS 1/4–INCH). THE MEASUREMENT FOR THICKNESS SHALL EXCLUDE TOP GROWTH AND THATCH, AND SHALL BE DETERMINED AT THE TIME OF CUTTING IN THE FIELD, PRECAUTIONS SHALL BE TAKEN TO PREVENT DRYING AND HEATING. SOD DAMAGED BY HEAT AND DRY CONDITIONS, AND SOD CUT MORE THAN 18 HOURS BEFORE BEING INCORPORATED INTO THE WORK SHALL NOT BE USED.
5. HANDLING OF SOD SHALL BE DONE IN A MANNER THAT WILL PREVENT TEARING, BREAKING, DRYING AND OTHER DAMAGE. PROTECT EXPOSED ROOTS FROM DEHYDRATION. DO NOT DELIVER MORE SOD THAN CAN BE LAID WITH 24 HOURS.
6. MOISTEN PREPARED SURFACE IMMEDIATELY PRIOR TO LAYING SOD. WATER THOROUGHLY AND ALLOW SURFACE TO DRY BEFORE INSTALLING SOD. FERTILIZE, HARROW OR RAKE FERTILIZER IN THE TOP 1–1/2–INCHES OF TOPSOIL, AT A UNIFORM RATE OF ONE POUND OF NITROGEN PER 100 S.F.
7. SOD SHALL BE CAREFULLY PLACED IN THE DIRECTION PARALLEL WITH THE SLOPE OF THE AREA TO BE SODDED. SOD STRIPS SHALL BE BUTTED TOGETHER BUT NOT OVERLAPPED WITH THE SEAMS STAGGERED ON EACH ROW.
8. FERTILIZER SHALL BE 20–10–5 COMMERCIAL FERTILIZER OF THE GRADE, TYPE, AND FORM SPECIFIED AND SHALL COMPLY WITH THE RULES OF THE STATE OF IOWA DEPARTMENT OF AGRICULTURE. FERTILIZER SHALL BE IDENTIFIED ACCORDING TO THE PERCENT N, P, K, IN THAT ORDER.
9. ALL SOD ON SLOPES GREATER THAN 5:1 AND WITHIN DETENTION AREAS SHALL BE STAKED.
10. SATURATE SOD WITH FINE WATER SPRAY WITHIN TWO HOURS OF PLANTING. DURING FIRST WEEK AFTER PLANTING, WATER DAILY OR MORE FREQUENTLY AS NECESSARY TO MAINTAIN MOIST SOIL TO A MINIMUM DEPTH OF FOUR INCHES BELOW SOD.

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1	02.21.2020	PRELIMINARY/FINAL PLAN REVIEW REVISIONS	RMY
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STEPHANIE LINDSAY GILLARD LICENSED 879 2-21-20 KANSAS LANDSCAPE ARCHITECT

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DRAWN BY: RMY
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TITLE: LANDSCAPE NOTES& DETAILS
DESCRIPTION: 2018 PROTOTYPE 45'X97' + 10 EXPANSION
SITE ID: 015–0071
SITE ADDRESS: 605 S 7TH ST, KANSAS CITY, KS 66105

SHEET NO. 015–0071.00.0
L1.1

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DATE: Feb 20, 2020 3:47pm XREFS: C_PTBLK_0191175 C_PBASE_0191175 C_DBASE_0191175

IRRIGATION SPECIFICATIONS:

SECTION 32 84 00

IRRIGATION SYSTEM

PART 1 - GENERAL

1.01 SCOPE OF WORK

A. FURNISH ALL LABOR, MATERIALS, AND EQUIPMENT FOR THE PROPER INSTALLATION OF AN IRRIGATION SYSTEM TO SERVICE ALL LAWN AND PLANTED AREAS.

B. THE CONTRACTOR SHALL FOLLOW PLAN LAYOUT AND INSTALLATION DESIGN DETAIL PROVIDED AND COORDINATED WITH THE LANDSCAPE REQUIREMENTS OF THE PLANTING TYPES, LOCATIONS AND SHALL INCLUDE ALL WATER SAVING PRODUCTS AND PRACTICES WHICH DEMONSTRATE THE HIGHEST LEVEL OF PERFORMANCE.

C. SMART CONTROLLERS, HIGH-EFFICIENCY SPRAY NOZZLES, PRESSURE REGULATED HEADS, & DRIPLINE MUST BE INCORPORATED. INDIVIDUAL SUB-ZONES MUST BE TAILORED TO THE WATERING REQUIREMENTS OF EACH MAJOR PLANT TYPE. UNDER NO CIRCUMSTANCES SHALL ANY TURF AREAS BE WATERED IN COMBINATION WITH PLANT BEDS. SPACING OF ALL SPRINKLER EQUIPMENT SELECTED SHALL NOT EXCEED THE MANUFACTURER'S RECOMMENDATIONS AS PUBLISHED. "HEAD TO HEAD" COVERAGE IS REQUIRED IN ALL TURF AREAS.

D. IRRIGATION CONTRACTOR SHALL PARTICIPATE IN COORDINATION MEETINGS AS REQUIRED WITH THE OWNER'S REPRESENTATIVE AND RELATED PARTIES PRIOR TO COMMENCEMENT OF CONSTRUCTION

1.02 QUALITY ASSURANCE

A. THE IRRIGATION SYSTEM IS TO BE INSTALLED BY A CONTRACTOR WHO SPECIALIZES IN IRRIGATION DESIGN AND INSTALLATION AND HAS INSTALLED AT LEAST 5 PROJECTS OF EQUAL OR COMPARABLE SIZE AND COMPLEXITY. IRRIGATION WORK SHALL BE PERFORMED BY A SINGLE FIRM, ACCEPTABLE TO THE OWNER'S REPRESENTATIVE AND LICENSED AS A CONTRACTOR IN THE STATE WHERE THE PROJECT IS TO BE INSTALLED.

B. REFERENCED STANDARDS: AMERICAN SOCIETY FOR TESTING AND MATERIALS, ANNUAL BOOK OF ASTM STANDARDS, LATEST EDITION.

C. CODES AND STANDARDS: IRRIGATION DESIGN AND INSTALLATION SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL GOVERNING AGENCY REQUIREMENTS AND TO INDUSTRY STANDARDS. NOTIFY LANDSCAPE ARCHITECT IMMEDIATELY IN WRITING OF ANY DISCREPANCIES, INCONSISTENCIES, OR CONTRADICTORY REQUIREMENTS.

D. SUBSTITUTIONS: NO SUBSTITUTIONS FROM THE INITIAL PLAN WILL BE PERMITTED WITHOUT REVIEW AND APPROVAL BY THE OWNER'S REPRESENTATIVE. REQUESTS MUST BE MADE AT LEAST 2 WEEKS IN ADVANCE OF THE PROJECT START DATE. IN THE EVENT THE CONTRACTOR DESIRES TO MAKE SUBSTITUTIONS OF MATERIALS, SUFFICIENT DESCRIPTIVE LITERATURE, NEW DESIGN, AND MATERIAL SAMPLES MUST BE FURNISHED TO ESTABLISH THE MATERIAL AS AN EQUAL SUBSTITUTE, AND THE DESIGN AS FUNCTIONAL. THE PROPOSED MATERIAL SUBSTITUTION MUST MEET THE ORIGINAL DESIGN INTENT AS IT PERTAINS TO WATER CONSERVATION.

E. APPROVAL AND SELECTION OF MATERIALS AND WORK: THE SELECTION OF ALL MATERIALS AND THE EXECUTION OF ALL OPERATIONS REQUIRED UNDER THIS PERFORMANCE SPECIFICATION IS SUBJECT TO THE APPROVAL OF THE OWNER'S REPRESENTATIVE WHO HAS THE RIGHT TO REJECT ANY AND ALL MATERIALS AND ANY AND ALL WORK WHICH, IN THEIR OPINION, DOES NOT MEET THE REQUIREMENTS OF THE CONTRACT DOCUMENTS AT ANY STAGE OF THE OPERATIONS. REMOVE REJECTED WORK AND OR MATERIALS FROM PROJECT SITE AND REPLACE PROMPTLY.

F. ALL MATERIALS SHALL COME FROM A REGIONALLY AUTHORIZED IRRIGATION DISTRIBUTOR FOR THE PRODUCT AS SPECIFIED FOR WARRANTY PURPOSES.

G. WORKMANSHIP: INSTALL MATERIALS AND EQUIPMENT IN A NEAT AND PROFESSIONAL MANNER FOLLOWING MANUFACTURER'S RECOMMENDATIONS.

1.03 SUBMITTALS

A. IRRIGATION DESIGN DRAWING

1. THE IRRIGATION DESIGN DRAWING REFERENCED IN THE PLAN SHALL BE SUBMITTED IN AN ELECTRONIC FORMAT. ANY DESIGN CHANGES SHOULD BE SUBMITTED AS DRAWINGS FOR APPROVAL NO LESS THAN 2 WEEKS PRIOR TO THE COMMENCEMENT OF ANY WORK.
2. THE OWNER'S REPRESENTATIVE AND LANDSCAPE ARCHITECT MAY ACCEPT THE IRRIGATION DESIGN DRAWING AS SUBMITTED; MAY MARK-UP MINOR CORRECTIONS, AND ACCEPT THE IRRIGATION DESIGN DRAWING AS MARKED-UP; OR MAY REJECT THE IRRIGATION DESIGN DRAWING, AND REQUIRE THAT IT BE RESUBMITTED.
3. ALL COMPONENTS OF THE IRRIGATION SYSTEM SHALL BE SHOWN. SHOW SPRINKLER PIPING, INCLUDING PLAN LAYOUT AND LOCATIONS, TYPES, SIZES, CAPACITIES, AND FLOW CHARACTERISTICS OF SPRINKLER PIPING COMPONENTS. INCLUDE WATER METERS, BACKFLOW PREVENTERS, BOOSTER PUMPS, VALVES, PIPING, SPRINKLERS AND DEVICES, DRAINS, ACCESSORIES, CONTROLS, AND WIRING AS NECESSARY. ALL COMPONENTS SHALL BE LABELED WITH THE COMPONENT TYPE, MANUFACTURER, AND MODEL, OR SHALL BE SYMBOLS REFERENCED TO A LEGEND OR KEY. ALL COMPONENTS SHALL BE SHOWN WITH DIMENSIONS TO REFERENCE POINTS. SHOW AREAS OF SPRINKLER SPRAY AND OVERSPRAY. DRAWING SHALL BE SCALED NO SMALLER THAN 1" = 30'-0". IN AREAS WHERE CLARITY OF THE DESIGN IS IN QUESTION BECAUSE OF THE SCALE, AN ENLARGEMENT OF THAT AREA SHALL BE SHOWN SO AS TO PROVIDE CLARITY OF THE DESIGN. APPROVAL OF IRRIGATION DESIGN DRAWING SHALL PRECEDE COMMENCEMENT OF ANY WORK.

B. PRODUCT DATA

1. IRRIGATION CONTRACTOR SHALL SUBMIT THREE (3) SETS OF MANUFACTURER'S TECHNICAL DATA TO THE OWNER'S REPRESENTATIVE INCLUDING, BUT NOT LIMITED TO VALVES, CONTROLLER, QUICK COUPLERS, SPRINKLER HEADS, ETC.

C. AS - BUILT DRAWING

1. IRRIGATION CONTRACTOR SHALL RECORD AND SUBMIT AN "AS-BUILT DRAWING" WHICH RECORDS ACTUAL INSTALLED CONDITIONS. THE AS-BUILT DRAWING SHALL BE CLEARLY AND NEATLY DRAWN ON A REPRODUCIBLE VELLUM OR SEPIA BASE OF THE ORIGINAL LANDSCAPE DESIGN. AN ELECTRONIC VERSION IS ALSO ACCEPTABLE. IRRIGATION CONTRACTOR SHALL SUBMIT THE AS BUILT DRAWING TO THE OWNER'S REPRESENTATIVE AND LANDSCAPE ARCHITECT BEFORE WORK UNDER THIS CONTRACT WILL BE CONSIDERED FOR ACCEPTANCE.
2. ALL COMPONENTS OF THE SYSTEM SHALL BE SHOWN WITH DIMENSIONS TO REFERENCE POINTS, AS INDICATED ABOVE UNDER "IRRIGATION DESIGN DRAWING." DRAWING SHALL BE SCALED NO SMALLER THAN 1" = 30'-0". SUBMITTAL, REVIEW, AND APPROVAL BY THE OWNER'S REPRESENTATIVE AND LANDSCAPE ARCHITECT OF THE AS BUILT DRAWING SHALL PRECEDE APPLICATION FOR FINAL PAYMENT BY THE CONTRACTOR.

1.04 DELIVERY, STORAGE AND HANDLING

A. DELIVER MATERIALS AND EQUIPMENT IN SUCH A MANNER AS NOT TO DAMAGE THE PARTS OR DECREASE THE USEFUL LIFE OF EQUIPMENT.

B. STORE MATERIALS AWAY FROM DETRIMENTAL ELEMENTS. COORDINATE WITH OWNER'S REPRESENTATIVE, GENERAL CONTRACTOR, OR LANDSCAPE CONTRACTOR, AS APPROPRIATE, TO SECURE A SAFE STAGING AREA.

C. HANDLE, LOAD, UNLOAD, STACK, AND TRANSPORT MATERIALS CAREFULLY TO AVOID DAMAGE. HANDLE PIPE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

1.05 JOB CONDITIONS

A. PRIOR TO COMMENCING ANY WORK REQUIRED UNDER THE CONTRACT, THE CONTRACTOR SHALL LOCATE ALL UTILITIES, SUBSURFACE DRAINAGE, AND UNDERGROUND CONSTRUCTION SO THAT PROPER PRECAUTIONS MAY BE TAKEN NOT TO DISTURB OR DAMAGE ANY SUBSURFACE IMPROVEMENTS. DAMAGE TO ANY OF THE ABOVE MENTIONED ITEMS OR OTHER SHALL BE PROMPTLY REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

B. WATER SERVICE AND ELECTRIC SERVICE WILL BE SUPPLIED BY THE GENERAL CONTRACTOR TO A DESIGNATED AREA IN LANDSCAPE PLANTING FOR THE PURPOSE OF THE AUTOMATIC IRRIGATION SYSTEM. IT IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO COORDINATE THE LOCATION OF THE WATERLINE AND ELECTRIC SERVICE.

C. IRRIGATION SYSTEM IS TO OPERATE UNDER THE WATER PRESSURE AND FLOW RATES PREVAILING AT THE PROJECT SITE. IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THESE PARAMETERS, AND SHALL DESIGN THE IRRIGATION SYSTEM IN ACCORDANCE WITH THE EXISTING OR ANTICIPATED CONDITIONS.

D. INSURANCE ON IRRIGATION MATERIALS OR EQUIPMENT STORED OR INSTALLED IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR. SUCH INSURANCE SHALL COVER FIRE, THEFT, AND VANDALISM. SHOULD THE IRRIGATION CONTRACTOR ELECT NOT TO PROVIDE SUCH INSURANCE THE OWNER SHALL IN NO WAY BE RESPONSIBLE FOR ANY LOSSES INCURRED BY THE AFOREMENTIONED ACTS. THE IRRIGATION CONTRACTOR IS RESPONSIBLE FOR ALL COSTS INCURRED IN REPLACING DAMAGED OR STOLEN MATERIALS OR EQUIPMENT PRIOR TO SUBSTANTIAL COMPLETION OF THE WORK.

E. OBTAIN ALL REQUIRED PERMITS AND PAY ALL REQUIRED FEES AT NO ADDITIONAL COST TO THE OWNER. ANY PENALTIES IMPOSED DUE TO FAILURE TO OBTAIN PERMITS OR PAY FEES ARE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR.

F. PROVIDE AND MAINTAIN ALL PASSAGEWAYS, GUARD FENCES, WARNING LIGHTS, AND OTHER PROTECTION DEVICES REQUIRED BY LOCAL AUTHORITIES OR OTHERS HAVING JURISDICTION.

G. IRRIGATION CONTRACTOR SHALL ADEQUATELY PROTECT ADJACENT PROPERTY AS PROVIDED BY LAW AND THE CONTRACT DOCUMENTS.

H. EXISTING SITE IMPROVEMENTS: PERFORM WORK IN A MANNER THAT AVOIDS DAMAGE TO EXISTING SITE IMPROVEMENTS. THE IRRIGATION CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE OF MECHANICAL NATURE AS WELL AS DAMAGE RESULTING FROM LEAKS IN THE IRRIGATION SYSTEM WHETHER DUE TO NEGLIGENCE OR OTHERWISE.

I. TEST WATER CONDITIONS: IT SHALL BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO MEASURE OR ANALYZE THE EXISTING OR ANTICIPATED WATER PRESSURE AT THE TAP AND DESIGN THE IRRIGATION SYSTEM ACCORDINGLY.

1. IN THE EVENT WATER PRESSURE IS INSUFFICIENT TO OPERATE THE SYSTEM AT AN ADEQUATE DESIGN PRESSURE AND FLOW, THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR DESIGNING, SPECIFYING, SUPPLYING, AND INSTALLING A BOOSTER PUMP CAPABLE OF INCREASING THE PRESSURE AND FLOW AS REQUIRED. BOOSTER PUMP SHALL BE OPERATED BY A MAGNETIC STARTER, FLOW, OR PRESSURE TRANSDUCER/SWITCH. IF A BOOSTER PUMP IS REQUIRED, COORDINATE PROVISION OF ADEQUATE ELECTRICAL SERVICE FOR THE PUMP WITH GENERAL CONTRACTOR. BOOSTER PUMP (IF REQUIRED) SHOULD BE PROVIDED IN A LOCKABLE ENCLOSURE ON A WWF REINFORCED CONCRETE PAD 5" THICK, OVER 6" CA6 BASE IF IT IS TO BE INSTALLED OUTDOORS. INDOOR INSTALLATION OF BOOSTER PUMPS IS ALSO ACCEPTABLE PROVIDED THE PROPER APPROVAL AND SPACE REQUIREMENTS EXIST.
2. IN THE EVENT THE WATER PRESSURE SIGNIFICANTLY EXCEEDS AN APPROPRIATE OPERATING PRESSURE, IT SHALL BE THE IRRIGATION CONTRACTOR'S RESPONSIBILITY TO PROVIDE AND INSTALL A PRESSURE REGULATOR DOWNSTREAM FROM THE BACKFLOW PREVENTER. PRESSURE REGULATION MAY BE ACCOMPLISHED VIA A MASTER VALVE WITH A PRESSURE REDUCING DIAL, OR MAY BE ACCOMPLISHED AT THE INDIVIDUAL ZONE VALVE LOCATIONS WITH A PRESSURE REDUCING DIAL.
3. EACH SPRAY HEAD, ROTARY SPRINKLER OR EMISSION DEVICE MUST CONTAIN A BUILT IN, IN-STEM PRESSURE REGULATOR DESIGNED TO OPTIMIZE PRESSURE AT THE NOZZLE. SPRAYS ARE 30 PSI WITH STANDARD NOZZLES, 45PSI FOR USE WITH ROTARY SPRAYS AND TURF ROTORS.

J. SLEEVES FOR IRRIGATION PIPING AND WIRING SHALL BE COORDINATED AND INSTALLED BY THE GENERAL CONSTRUCTION CONTRACTOR.

1. IT SHALL BE THE IRRIGATION CONTRACTOR'S RESPONSIBILITY TO SUBMIT THE IRRIGATION DESIGN DRAWING, SHOWING THESE SLEEVES, IN A TIMELY MANNER, SUCH THAT THE GENERAL CONSTRUCTION CONTRACTOR IS ABLE TO INSTALL SLEEVES WITHIN AN APPROPRIATE SEQUENCE OF WORK, I.E., WITHOUT UNDOING, DAMAGING, OR OTHERWISE COMPROMISING WORK THAT HAS ALREADY BEEN INSTALLED.
2. IRRIGATION SLEEVES SHALL BE SCHEDULE 40 PVC PIPE, MINIMUM 2X PIPE SIZE OF PROPOSED IRRIGATION PRESSURE PIPE. A SEPARATE SCHEDULE 40 PVC SLEEVE SHALL BE INSTALLED FOR IRRIGATION WIRE. ENDS OF ALL IRRIGATION SLEEVES SHALL BE MARKED WITH 2 X 2 WOODEN STAKES OR WHITE PVC PIPE, INDICATING IN INDELIBLE MARKER "IRRIGATION SLEEVE." GENERAL CONTRACTOR SHALL EXPOSE ANY IRRIGATION SLEEVES THAT ARE NOT MARKED FOR THE IRRIGATION CONTRACTOR PRIOR TO START OF IRRIGATION WORK. COORDINATION AND SCHEDULING FOR EXCAVATION OF SLEEVE ENDS IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR.

1.06 WARRANTY

A. WARRANTY ALL WORK FOR A PERIOD OF ONE (1) YEARS, STARTING ON THE DATE OF SUBSTANTIAL COMPLETION, AGAINST DEFECTS IN MATERIALS, EQUIPMENT, WORKMANSHIP, AND ANY REPAIRS REQUIRED RESULTING FROM LEAKS OR OTHER DEFECTS OF WORKMANSHIP, MATERIAL, OR EQUIPMENT.

PART 2 - PRODUCTS

2.01 GENERAL

A. SPECIFIC REQUIREMENTS CONCERNING THE VARIOUS MATERIALS AND THE ARRANGEMENTS IN WHICH THEY ARE TO BE INSTALLED ARE OUTLINED IN THIS SPECIFICATION.

B. QUALITY AND SIZE

1. MATERIAL SPECIFIED BY NAME AND / OR MODEL NUMBER IN THE SPECIFICATIONS, ON THE SITE, OR DETAILED DRAWINGS ARE USED FOR THE PURPOSE OF IDENTIFICATION OF MATERIALS AND TO ENSURE SPECIFIC USE OF THAT MATERIAL IN THE CONSTRUCTION OF THE SYSTEM. NO SUBSTITUTIONS WILL BE PERMITTED WITHOUT APPROVAL. (SEE SUBSTITUTIONS).
2. ALL MATERIALS USED IN THE SYSTEM MUST BE NEW AND WITHOUT FLAWS OR DEFECTS OF ANY TYPE AND BE THE BEST QUALITY AVAILABLE. ALL SPRAYS, ROTORS AND VALVES SHALL HAVE A MINIMUM THREE (3) YEAR WARRANTY AGAINST MATERIAL DEFECTS OR DEFECTIVE WORKMANSHIP.

2.02 PIPE AND FITTINGS

A. ALL PVC PIPE FROM SIZES THREE (3) INCHES AND ABOVE SHALL BE CLASS 200, SDR 26, UNPLASTICIZED RIGID POLYVINYLCHLORIDE (PVC) PIPE WITH INTEGRAL BELL AND RUBBER RING GASKET UNLESS OTHERWISE SPECIFIED. PIPE FROM SIZES TWO AND ONE - HALF (2 1/2) TO ONE AND ONE - QUARTER (1 1/4) INCH SHALL BE CLASS 200, SOLVENT WELD PVC PIPE. PIPE SIZES ONE (1) AND THREE - QUARTERS (3/4) INCH SHALL BE CLASS 200, SOLVENT WELD PVC PIPE. ONE - HALF (1/2) INCH PIPE SHALL BE CLASS 315 SOLVENT WELD PVC PIPE. ALL PIPE SHALL BE SUPPLIED IN STANDARD TWENTY (20) FOOT LENGTHS AND SHALL BE FROM ONE OF THE FOLLOWING MANUFACTURERS: NO POLYETHYLENE PIPE WILL BE ACCEPTED UNLESS PRIOR WRITTEN APPROVAL IS OBTAINED BY THE LANDSCAPE ARCHITECT.

B. ALL PIPE THAT IS EXPOSED OR NOT BELOW GRADE SHALL BE SCHEDULE 80 PVC OR HDPE.

C. ALL PIPE FITTINGS SIZE FOUR (4) INCHES AND GREATER SHALL BE DUCTILE IRON. 3" FITTINGS SHALL BE BELL AND RUBBER GASKET. FITTINGS 2-1/2" AND UNDER SHALL BE SCHEDULE 40 SOLVENT WELD PVC.

D. SOLVENT WELD PVC PIPE, IF AND WHEN USED IN CONSTRUCTION OF THIS SYSTEM, SHALL BE RIGID PVC PIPE AND SHALL BE ASSEMBLED USING APPROPRIATE PVC PIPE CLEANER / PRIMER AND SOLVENT CEMENT IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

E. EXPANSION JOINTS SHALL BE INSTALLED EVERY THREE HUNDRED (300) FEET OF SOLVENT WELD PIPING.

F. PVC PIPE COUPLINGS LOCATED WITHIN SLEEVES: PVC PIPE COUPLINGS FOUR (4) INCHES AND SMALLER SHALL BE SOLVENT WELD. PVC PIPE COUPLINGS SIX (6) INCHES AND LARGER SHALL BE MECHANICAL JOINTS. UPON EXITING SLEEVES, PIPE SOLVENT WELD OR INTEGRAL BELL AND RUBBER GASKET, AS DESCRIBED IN SECTION 2-02-A, MUST BE ADHERED TO.

2.03 RISERS: PROVIDE THREADED SCHEDULE 80 PVC RISERS. ALL RISERS ABOVE GRADE SHALL BE EITHER DARK GRAY OR BLACK PVC PIPE, AND SHALL BE SUPPORTED SO AS NOT TO CAUSE UNNECESSARY MOVEMENT WHILE SPRINKLER IS IN OPERATION.

2.04 ELECTRIC WIRING

A. 120 VOLT AC WIRING: 120 VOLT SERVICE TO CONTROLLER SHALL CONSIST OF THREE WIRES: ONE BLACK, ONE WHITE, AND ONE GROUND. ELECTRICAL SERVICE IS TO BE PROVIDED BY THE GENERAL CONTRACTOR UNLESS OTHERWISE DIRECTED BY OWNER'S REPRESENTATIVE. IT IS THE IRRIGATION CONTRACTORS RESPONSIBILITY TO COORDINATE THE LOCATION OF ELECTRICAL SERVICE TO BE PROVIDED FOR CONTROLLER.

B. SPLICES IN CONTROLLER WIRING SHALL BE WATERPROOF DIRECT BURY APPLICATION. CONNECTOR MUST UTILIZE A COMBINATION OF WIRE CAP AND SEPARATE GEL FILLED WATERPROOF CAP.

C. PROVIDE JUNCTION BOX, FLUSH-MOUNTED AND GASKETED PER CODE AS REQUIRED.

D. CONTROL WIRING SHALL BE 24 VOLT SOLID WIRE UNDERWRITER'S LABORATORY (UL) APPROVED FOR DIRECT BURIAL IN GROUND. MINIMUM WIRE SIZE SHALL BE FOURTEEN (14) GAUGE. ALL CONTROL WIRING AND WIRING CONNECTIONS FROM THE CONTROLLER TO THE VALVES IS INCLUDED IN THIS CONTRACT.

2.05 SPRINKLER HEADS

A. SHORT RANGE - 4" 6" OR 12" POP UP SPRAY HEAD:

1. SPRINKLER SHALL BE OF THE FIXED SPRAY TYPE DESIGNED FOR IN GROUND INSTALLATION. SPRINKLER SHALL HAVE A TRIPLE BLADED WIPER SEAL FOR INCREASED DURABILITY AND PRESSURE RATING.
2. POP-UP SPRAY SPRINKLERS SHALL INCLUDE A PRESSURE REGULATING DEVICE TO PREVENT HIGH PRESSURE FOGGING TO THE NOZZLE STREAM. THIS REGULATING DEVICE SHALL BE AN INTEGRAL PART OF THE POP-UP STEM AND SHALL REGULATE THE NOZZLE PRESSURE TO 30 PSI OR 45 PSI (NOZZLE APPROPRIATE) FOR INLET PRESSURES FROM 35 TO 70 PSI. THESE UNITS SHALL BE IDENTIFIABLE FROM THE TOP WITH "PRS" MARKINGS ON THE CAP.
3. THE ADDITION OF A CHECK VALVE FEATURE (SAM) SHALL BE INCORPORATED INTO THE SPRAY BODY AND USED IN LOCATIONS THROUGHOUT THE SYSTEM WHERE LOW HEAD DRAINAGE IS INDICATED.
4. SPRAY BODY SHALL INCORPORATE A DEVICE DESIGNED TO INDICATE WHEN A NOZZLE IS MISSING OR BROKEN, BY SENDING OUT A SMALL STREAM OF WATER 15 FEET INTO THE AIR AT 1 TO 1.5 GPM.

B. SPRAY NOZZLES; HIGH-EFFICIENCY NOZZLES DISTRIBUTION UNIFORMITY (DULQ) OF 70 % OR GREATER, (AS PUBLISHED BY THE MANUFACTURER) SHALL BE USED. THE HIGHER EFFICIENCY NOZZLE SHOULD RESULT IN BETTER THAN A 1.2 SC, REDUCING RUNTIME ACCORDINGLY. ALL NOZZLES SHALL ALL HAVE A MATCHED PRECIPITATION RATE WITH OTHER NOZZLES ON THE SAME ZONE.

a. UTILIZE LOWER PRECIPITATION RATE ROTARY NOZZLES (.6 IN/P HOUR) ON HILLY AREAS AND/OR WHERE INFILTRATION IS LOW AND THEREFOR RUNOFF IS EXPECTED. ROTARY NOZZLE FOR SHRUB OR SMALL TURF AREAS (13-24 FEET) SPACING: MAXIMUM 55 PSI.
b. UTILIZE HIGH PRECIPITATION HIGH-EFFICIENCY NOZZLES FOR IMPROVED WIND RESISTANCE WILL ALLOW FOR SHORTENED RUN-TIMES ON FLAT AREAS OR WHERE INFILTRATION RATES ALLOW. HE-VAN-8',10',12' OR 15' SPRAY NOZZLES SPACING OF 8 TO 15 FEET (DU OF 73% TO 78% RESPECTIVELY). SHALL HAVE AN ARC ADJUSTMENT FROM 0 TO 360 DEGREES.
c. DUAL ORIFICE NOZZLES MAY BE USED IN LOCATIONS REQUIRING SUPERIOR CLOSE-IN WATERING, WHILE MAINTAINING A DULQ OF 70% OR GREATER. U-SERIES SPRAY NOZZLE FOR SHRUB OR SMALL TURF AREAS (5-15 FEET) SPACING: MAXIMUM 30 PSI.

C. INTERMEDIATE RANGE ROTORS:

1. THE FULL OR PART CIRCLE ROTOR SPRINKLER UTILIZING THE MPR NOZZLE SETS. SPRINKLER SHALL BE A SINGLE STREAM, WATER LUBRICATED, GEAR DRIVE TYPE CAPABLE OF COVERING THE AREAS BETWEEN 25 AND 35 FEET AT A MINIMUM BASE PRESSURE OF 45 PSI. THE PART CIRCLE SPRINKLER SHALL HAVE ADJUSTABLE ARC COVERAGE OF 40 TO 360 DEGREES.
   a. THE SPRINKLER SHALL INCLUDE AN INTEGRAL PRESSURE REGULATOR TO REDUCE OPERATING PRESSURE TO 45 PSI FOR OPTIMAL NOZZLE PERFORMANCE. THE SPRINKLER SHALL HAVE A FLOW SHUT-OFF DEVICE INTEGRATED INTO THE FLOW PATH OF THE ROTOR AS WELL AS ADJUSTABLE ARC COVERAGE OF 40 TO 360 DEGREES.
   b. THE SPRINKLER SHALL HAVE A GREEN RUBBER COVER, TAPERED STEM FOR POSITIVE FLUSHING, AND A STRONG STAINLESS STEEL RETRACT SPRING FOR POSITIVE POP DOWN.

2.06 AUTOMATIC CONTROLLER

A. TRADITIONALLY WIRED (4 TO 48 ZONES)

1. IRRIGATION CONTROLLER SHALL HAVE A MODULAR STATION CAPACITY, BY RECEIVING EXPANSION MODULES OF 4, 8, OR 12 STATIONS, TO CREATE A CONTROLLER OF UP TO 48 STATIONS. THE CONTROLLER SHALL BE OF A HYBRID TYPE, HOUSED IN A WALL-MOUNTABLE, WEATHER RESISTANT PLASTIC CABINET WITH A KEY-LOCKING CABINET DOOR SUITABLE FOR OUTDOOR INSTALLATION. THE CONTROLLER SHALL HAVE 4 SEPARATE AND INDEPENDENT PROGRAMS WHICH CAN HAVE 8 DIFFERENT START TIMES, START DAY CYCLES AND STATION RUN TIMES. THE CONTROLLER SHALL HAVE A CYCLE+SOAK WATER MANAGEMENT FEATURE.
2. THE CONTROLLER SHALL INCORPORATE A FLOMANAGER FEATURE THAT SHALL PROVIDE REAL-TIME FLOW, POWER, AND STATION MANAGEMENT. FLOWATCH SHALL COMPARE THE CURRENT REAL-TIME FLOW RATE TO THE LEARNED RATES AND TAKE USER DEFINED ACTIONS IF PROBLEM IS DETECTED. FLOWATCH SHALL AUTOMATICALLY DETERMINE THE LOCATION OF THE FLOW PROBLEM AND ISOLATE THE PROBLEM BY TURNING OFF THE AFFECTED STATION OR MASTER VALVE.
3. THE CONTROLLER SHALL BE COMPATIBLE WITH THE COMMUNICATION CARTRIDGES PROVIDING REMOTE COMPUTER CONTROL OF THE CONTROLLER VIA A VARIETY OF COMMUNICATION OPTIONS (DIRECT CONNECT CABLE, PHONE, GPRS/CELLULAR, ETHERNET, WIFI, RADIO, AND IQNET COMMUNICATION CABLE).
4. SHALL INCLUDE A 3-YEAR TRADE WARRANTY.

2.07 AUTOMATIC RAIN / FREEZE SHUT OFF DEVICE

A. WR2RF WIRELESS RAIN FREEZE SENSOR SHALL EMPLOY AN ELECTRO-MECHANICAL ACTUATING MECHANISM DESIGNED TO CAUSE A CIRCUIT INTERRUPT IF PROGRAMMABLE LOW TEMPERATURE OR RAINFALL SET POINTS ARE SATISFIED.

B. THE DEVICE SHALL BE USED WITH 24VAC CONTROLLERS AND SHALL BE OF SUFFICIENT CAPACITY TO BE USED WITH A MAXIMUM OF SIX 24VAC 7VA SOLENOIDS PLUS AN ADDITIONAL MASTER VALVE OR PUMP START THAT DOES NOT EXCEED 53VA.

C. THE WIRELESS RAIN SENSOR SHALL INCORPORATE A PROVISION THAT ALLOWS THE INSTALLER TO SELECT FROM SEVERAL RAINFALL OR LOW TEMPERATURE SETTINGS THAT CAN BE PROGRAMMED THROUGH THE USE OF ICONS ON A CONTROLLER INTERFACE.

D. A SENSOR LED SHALL COMMUNICATE SIGNAL STRENGTH DURING THE INSTALLATION PROCESS.

2.08 SMART SENSORS FOR CONTROLLERS

1. SOIL MOISTURE SENSOR SHALL BE A SMART WATERING CONTROL DEVICE FOR USE WITH A STANDARD 24-VOLT AC MULTI-WIRE IRRIGATION CONTROLLER. IN OPERATION, THE SOIL MOISTURE SENSOR SHALL ONLY ALLOW A PROGRAMMED WATERING CYCLE WHEN THE SOIL MOISTURE DROPS BELOW A SET MOISTURE THRESHOLD.
2. USER INTERFACE SHALL ENABLE INSTANT READINGS OF SOIL MOISTURE, TEMPERATURE AND ELECTRICAL CONDUCTIVITY PLUS REVIEW OF 7-CYCLE WATERING HISTORY.
3. IT SHALL TAKE DIGITAL READINGS EVERY 10 MINUTES OF SOIL VOLUMETRIC WATER CONTENT (VWC) UTILIZING ADVANCED TIME DOMAIN TRANSMISSOMETRY (TDT) DIGITAL SIGNAL PROCESSING THAT DELIVERS ACCURATE READINGS INDEPENDENT OF SOIL TEMPERATURE AND ELECTRICAL CONDUCTIVITY.
4. IT SHALL CONSIST OF A 304 STAINLESS STEEL DIGITAL SOIL MOISTURE SENSOR AND A USER INTERFACE.

2.09 FLOW SENSORS

FLOW SENSORS SHALL BE AN IN LINE TYPE WITH A NONMAGNETIC, SPINNING IMPELLER (PADDLE WHEEL) AS THE ONLY MOVING PART. THE ELECTRONICS HOUSING SHALL HAVE TWO O-RINGS AND SHALL BE EASILY REMOVED FROM THE METER BODY. THE SENSOR ELECTRONICS WILL BE POTTED IN AN EPOXY COMPOUND DESIGNED FOR PROLONGED IMMERSION. ELECTRICAL CONNECTIONS SHALL BE 2 SINGLE CONDUCTOR 18 AWG LEADS 48 INCHES (1,2 METERS) LONG. INSULATION SHALL BE MADE USING SPECIAL DIRECT BURIAL "UF" TYPE, ELECTRICALLY SHIELDED CABLE TO AVOID INTERFERENCE, COLORED RED FOR THE POSITIVE LEAD AND BLACK FOR THE NEGATIVE LEAD. THE SENSOR SHALL BE CAPABLE OF OPERATING IN LINE PRESSURES UP TO 400 PSI (27,5 BARS) AND LIQUID TEMPERATURES UP TO 220° F, AND OPERATING IN FLOWS OF ½ FOOT PER SECOND TO 15 FEET PER SECOND WITH LINEARITY OF ±1% AND REPEATABILITY OF ±1%. THE METER BODY SHALL BE CAST 85-5-5-5 BRONZE, IN 1" AND 1½", FEMALE IRON PIPE THREAD SIZES.

2.10 METER: SUBMIT PRODUCT DATA AS REQUIRED.

2.11 BACKFLOW PREVENTER:

A. TO BE SUPPLIED AND INSTALLED BY THE IRRIGATION CONTRACTOR. BACKFLOW PREVENTER SHALL BE A RPZ REDUCED PRESSURE BACKFLOW ASSEMBLY TYPE, CAPABLE OF HAVING AN ADEQUATE FLOW RATE IN GALLONS PER MINUTE (GPM) WITHOUT EXCESSIVE PRESSURE LOSS, AND SHALL BE SUITABLE FOR SUPPLY PRESSURE OF UP 150 PSI. BACKFLOW PREVENTER BODY SHALL BE BRONZE WITH CORROSION-RESISTANT INTERIOR COMPONENTS AND CHECK ASSEMBLIES SHALL BE TIGHT SEATING RUBBER. WORKING PRESSURE SHALL BE 150PSI MINIMUM WITH A MAXIMUM PRESSURE LOSS OF 12 PSI THROUGH MIDDLE 1/3 OF FLOW RANGE. BACKFLOW PREVENTER SHALL BE INSTALLED WITHIN ENCLOSURE EQUIPPED WITH A HEAT TRACE WITH SUFFICIENT CLEARANCE TO PERMIT PERIODIC TESTING AND MAINTENANCE. THE CONTRACTOR IS RESPONSIBLE FOR RUNNING POWER FROM THE BUILDING TO THE HEATED ENCLOSURE. PROVIDE A LOCKABLE ENCLOSURE ON A CONCRETE PAD 5" THICK WITH WWF REINFORCEMENT, OVER 6" CA6 BASE FOR THE BACKFLOW PREVENTER. BACKFLOW PREVENTER ASSEMBLY MUST INCLUDE (2) GATE VALVES FOR ISOLATING UNIT, AND TWO (2) BALL VALVE TEST COCKS FOR TESTING UNIT TO ENSURE PROPER OPERATION.

2.12 VALVE BOXES

A. VALVE BOX BODY SHALL BE COMPOSED OF 100% RECYCLED HDPE. THERE SHALL BE NO PRE-PUNCHED HOLE IN THE VALVE BOX LID. THE STANDARD RECTANGULAR BODY SHALL HAVE 14 KNOCK-OUTS MOLDED INTO THE SIDES THAT CAN BE READILY REMOVED. THE VALVE BOX SHALL HAVE CORRUGATED SIDES FOR LATERAL STRENGTH. LIDS SHALL HAVE BEVELED EDGES TO MINIMIZE POTENTIAL DAMAGE FROM LAWN EQUIPMENT. LIDS SHALL BE CLEARLY MARKED WITH THE WORDS "IRRIGATION CONTROL VALVE" MOLDED ONTO THE TOP. LIDS SHALL HAVE A MARKING AREA MEASURING 6.0" BY 2.0" SUITABLE FOR BRANDING OR OTHER IDENTIFICATION. THE LOCKING BOLT, WASHER AND CLIP SHALL BE MADE OF STAINLESS STEEL.

2.13 SLEEVES: CLASS 200 PVC PIPE TYPE LL20 OR 1220 COORDINATE WITH AND INSTALLED BY THE GENERAL CONTRACTOR.

2.14 QUICK COUPLING VALVES: ONE (1) PER ZONE, LOCATED ADJACENT TO REMOTE SOLENOID VALVE.

A. QUICK COUPLING VALVES (QCVS) WILL BE USED FOR MANUAL ACCESS TO THE PRESSURIZED MAIN LINE SO THAT A HOSE CAN BE ATTACHED AND USED FOR HAND WATERING. QCVS SHALL BE CONSTRUCTED OF BRASS WITH A SPRING LOADED SEAL THAT WILL KEEP THE VALVE IN A CLOSED POSITION UNTIL THE KEY IS INSERTED INTO THE VALVE.

B. TWO-PIECE BODY DESIGN FOR EASY SERVICING (MODELS 33-DRC, 44-LRC, 44-RC, 33-DNP, AND 44-NP).QCVS SHALL BE INSTALLED ON A TRIPLE ELBOW SWING JOINT.

C. IRRIGATION CONTRACTOR TO CONTACT OWNER'S REPRESENTATIVE TO DETERMINE HOSE TYPE. KEY AND SWIVEL SHALL BOTH BE CONSTRUCTED OF BRASS.

2.15 CONTROL VALVES:

A. REMOTE CONTROL ZONE OR MASTER VALVE SHALL BE NORMALLY CLOSED GLOBE PATTERN DESIGN. VALVE PRESSURE RATING SHALL NOT BE LESS THAN 150 PSI. SHALL HAVE BOTH INTERNAL AND EXTERNAL MANUAL OPEN/CLOSE CONTROL (INTERNAL AND EXTERNAL BLEED) TO MANUALLY OPEN AND CLOSE THE VALVE WITHOUT ELECTRONICALLY ENERGIZING THE SOLENOID. SHALL HAVE A BRASS FLOW CONTROL STEM FOR ACCURATE MANUAL REGULATION AND/OR SHUT OFF OF OUTLET FLOW. SLOW CLOSING TO PREVENT WATER HAMMER AND SUBSEQUENT SYSTEM DAMAGE. ACCEPTS LATCHING SOLENOID FOR USE WITH BATTERY-OPERATED CONTROLLERS UP TO 150 PSI. VALVE CAN ACCOMMODATE AN OPTIONAL, FIELD-INSTALLED PRS-D PRESSURE REGULATING MODULE CAPABLE OF REGULATING OUTLET PRESSURE BETWEEN 15 AND 100 PSI (± 3 PSI). OPERATING PRESSURE RANGE OF 20 TO 200 PSI. OPERATING FLOW RATE OF 5 TO 200 GPM. SHALL INCLUDE A 5-YEAR TRADE WARRANTY.

B. DRIP ZONE CONTROL KIT (LOW FLOW): [3/4" LOW FLOW VALVE AND 3/4" PR FILTER]. LOW FLOW CONTROL ZONE KIT ASSEMBLY FOR DRIP ZONES WITH FLOWS FROM 0.2 TO 5.0 GPM. VALVE BODY AND BONNET CONSTRUCTED OF HIGH IMPACT, WEATHER-RESISTANT PLASTIC, AND STAINLESS STEEL. LOW-POWER ENCAPSULATED SOLENOID WITH CAPTURED PLUNGER AND 90 MESH (200 MICRON) SOLENOID FILTER, NORMALLY-OPEN IN-LINE PRESSURE REGULATING DEVICE. OPERATING FLOW RATE OF 0.2 TO 5.0 GPM. OPERATING PRESSURE RANGE OF 20 TO 120 PSI. REGULATED PRESSURE OF 30 PSI (2,1 BAR). TEMPERATURE RATING TO 150° F (66° C). SHALL INCLUDE A 3 -YEAR TRADE WARRANTY.

C. DRIP ZONE CONTROL KIT (MEDIUM FLOW): [1" PVC BALL VALVE, 1" CV AND 1" FILTER]. MEDIUM FLOW CONTROL ZONE KIT ASSEMBLY FOR DRIP ZONES WITH FLOWS FROM 3 TO 20 GPM, INCLUDING PVC BALL VALVE, CONTROL VALVE (CV), AND QUICK CHECK PRESSURE-REGULATING BASKET FILTER (PRBF) WHICH COMBINES FILTRATION AND PRESSURE REGULATION IN ONE INTEGRATED UNIT FOR PROTECTION OF DOWNSTREAM COMPONENTS OF DRIP IRRIGATION SYSTEM. PRESSURE REGULATING BASKET FILTER COMPONENT SPECIFICATIONS INCLUDE: STANDARD 200 MESH (75 MICRON) FILTER SCREEN CONSTRUCTED OF STAINLESS STEEL. NORMALLY-OPEN IN-LINE PRESSURE REGULATING DEVICE. OPERATING FLOW RATE OF 3 TO 20 GPM. OPERATING PRESSURE RANGE OF 15 TO 150 PSI. REGULATED PRESSURE OF 40 PSI. TEMPERATURE RATING TO 150° F. SHALL INCLUDE A 3 -YEAR TRADE WARRANTY.

D. DRIP ZONE CONTROL KIT (HIGH FLOW): [1 1/2" VALVE, AND TWO 1" PRB-QKCHK PRESSURE REGULATING BASKET FILTERS]. HIGH FLOW COMMERCIAL CONTROL ZONE KIT FOR DRIPLINE ZONES WITH FLOWS FROM 15.0 TO 40.0 GPM, INCLUDING PESB VALVE AND TWO PARALLEL PRESSURE REGULATING QUICK-CHECK BASKET FILTERS. ONE-PIECE SOLENOID WITH CAPTURED PLUNGER AND 90 MESH (200 MICRON) SOLENOID FILTER, EXTERNAL BLEED FOR MANUAL SYSTEM FLUSHING DURING START-UP, INTERNAL BLEED FOR MANUAL ZONE ACTIVATION DURING MAINTENANCE OPERATIONS. OPERATING FLOW RATE OF 15.0 TO 40.0 GPM. INLET PRESSURE RATING: 20 TO 200 PSI. REGULATED PRESSURE OF 40 PSI. TEMPERATURE RATING TO 150° F. SHALL INCLUDE A 3 -YEAR TRADE WARRANTY.

2.16 DRIP LINE

A. DRIPLINE AREAS SHOULD USE SUB-SURFACE DRIPLINE WITH COPPER SHIELD TECHNOLOGY, PRESSURE-COMPENSATING DUAL-LAYERED INLINE EMITTERS. THIS PRODUCT IS INTENDED TO BE INSTALLED SUB-SURFACE (4" TO 6" BELOW GRADE) APPLICATION WITH DRIPLINE EMITTERS PROTECTED FROM ROOT INTRUSION WITH COPPER AND WITHOUT CHEMICALS OR OTHER PHYSICAL BARRIERS. EMITTER SPACING AND DRIPLINE ROW SPACING SHOULD BE INDICATED ON CONSTRUCTION DRAWINGS.

B. REFER TO DESIGN DRAWINGS AND MANUFACTURER'S RECOMMENDATION REGARDING SPACING, BURY DEPTH AND PRECIPITATION RATE BASE ON SOIL PROFILE.

C. ACCEPTS EASY FIT FITTINGS, DRIPLINE INSERT FITTINGS AND 17MM INSERT FITTINGS. OPERATING PRESSURE RANGE OF 8.5 TO 60 PSI. OPERATING EMITTER FLOW RATES OF 0.6 AND 0.9 GPH. EMITTER SPACING OF 12 OR 18 INCHES.

D. EACH DRIP ZONE SHALL INCLUDE AN OPERATIONAL INDICATORS OPERIND ARE TO BE INSTALLED CLOSE TO THE END OF EACH ZONE IN AN INCONSPICUOUS LOCATION AND NOTED ON THE AS-BUILT DRAWING. OPERIND IS DESIGNED TO OPEN AT 20PSI, CONFIRMING NORMAL PRESSURE AND FLOW ARE PRESENT.

2.17 SURGE PROTECTION EQUIPMENT

A. PROVIDE GENERAL ELECTRIC LIGHTNING ARRESTOR NO. GL 15 CC B 007 FOR CONTROLLERS NOT EQUIPPED WITH PRIMARY SURGE PROTECTION.

B. IRRIGATION CONTRACTOR IS RESPONSIBLE FOR DETERMINING WHETHER THE ABOVE MENTIONED SURGE PROTECTION EQUIPMENT IS PROVIDED IN THE CONTROLLER AS A "BUILT _ IN" UNIT OR IF IT MUST BE SUPPLIED AND INSTALLED SEPARATELY.

2.18 ISOLATION VALVES

A. PROVIDE ALL GATE VALVES FOR ISOLATION PURPOSES, ALLOWING FULL DIAMETER OPENING WHEN IN FULL OPEN POSITION.

B. MANUALLY OPERATED VALVES SHALL BE THE SAME SIZE AS THE LINE.

C. VALVES THREE (3) INCHES OR SMALLER SHALL BE BRASS CONSTRUCTION, THREADED, AND RATED FOR TWO HUNDRED (200) PSI WOG.

D. VALVES FOUR (4) INCHES OR LARGER SHALL BE CAST IRON FITTED WITH A RUBBER RING, SLAB _ TYPE GASKET.

PART 3 - EXECUTION

3.01 GENERAL

A. SUPERVISION: PROVIDE A FULL - TIME SUPERINTENDENT AND NECESSARY ASSISTANTS ON THE JOB WHILE WORK IS IN PROGRESS. IRRIGATION CONTRACTING FIRM SHALL HAVE A C.I.C. (CERTIFIED IRRIGATION CONTRACTOR) ON SITE AT ALL TIMES AND MUST BE AN EMPLOYEE OF SAID IRRIGATION CONTRACTING COMPANY. THE SUPERINTENDENT REPRESENTS THE IRRIGATION CONTRACTOR IN ALL FUNCTIONS, AND DIRECTIVES GIVEN TO HIM BY THE OWNER'S REPRESENTATIVE, LANDSCAPE ARCHITECT, GENERAL CONSTRUCTION CONTRACTOR, AND / OR LANDSCAPE CONTRACTOR ARE BINDING AS IF GIVEN TO THE IRRIGATION CONTRACTOR IN PERSON.

B. INSPECTION OF WORK IN PROGRESS: DURING INSTALLATION THE OWNER'S REPRESENTATIVE OR THE LANDSCAPE ARCHITECT MAY REVIEW AND OBSERVE THE WORK ON A REGULAR OR RANDOM BASIS, AND MAY REJECT ANY WORK AND / OR MATERIALS THAT DO NOT MEET THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. REJECTED WORK MUST BE PROMPTLY CORRECTED. NO TIME EXTENSION WILL BE ALLOWED REPLACEMENT OR REPAIR OF REJECTED WORK.

3.02 REVIEW IN ADVANCE OF CONSTRUCTION: THE IRRIGATION CONTRACTOR SHALL REVIEW THE PROJECT SITE PRIOR TO START OF WORK TO DETERMINE THAT ALL SITE CONDITIONS ARE ACCEPTABLE FOR IRRIGATION WORK TO BEGIN. INFORM THE OWNER'S REPRESENTATIVE AND THE LANDSCAPE ARCHITECT OF ANY AND ALL UNSUITABLE CONDITIONS. DO NOT PROCEED WITH INSTALLATION OF IRRIGATION SYSTEM UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED IN AN ACCEPTABLE MANNER.

3.03 PREPARATION: FLAG ALL EXISTING UNDERGROUND UTILITIES PRIOR TO TRENCHING AND / OR BORING OPERATIONS. OBTAIN LOCATIONS OF ANY NEW UTILITIES FROM THE OWNER'S REPRESENTATIVE AND / OR THE GENERAL CONTRACTOR. IRRIGATION CONTRACTOR IS SOLELY RESPONSIBLE FOR CONTACTING THE UTILITY LOCATING SERVICE(S) AND OWNER'S REPRESENTATIVE (WITH 48 HOURS MINIMUM NOTIFICATION) AND LOCATING ON - SITE UTILITIES IN ADVANCE OF INSTALLATION.

3.04 SLEEVING (BY GENERAL CONTRACTOR)

A. LOCATION OF SLEEVING SHALL BE COORDINATED WITH THE GENERAL CONSTRUCTION CONTRACTOR. MAKE ADJUSTMENTS NECESSARY TO ACCOMMODATE EXISTING VEGETATION, UTILITIES, AND OTHER EXISTING CONDITIONS.

B. REPAIR OF DAMAGE TO EXISTING UTILITIES, STRUCTURES OR OTHER CONSTRUCTION RESULTING FROM INSTALLATION OF SLEEVES IS THE RESPONSIBILITY OF THE CONTRACTOR INSTALLING THE SLEEVING.

3.05 PIPE

A. PIPE JOINTS

1. FOLLOW MANUFACTURER'S RECOMMENDATIONS AND USE PIPE AND BELL FROM THE SAME MANUFACTURER. PIPES TWO AND ONE - HALF (2 1/2) INCHES AND SMALLER USE SOLVENT WELD SYSTEM. PIPES THREE (3) INCHES AND LARGER USE APPROVED COMPRESSION TYPE PUSH ON JOINTS.

B. SOLVENT WELD PVC PIPE, ASSEMBLE ACCORDING TO MANUFACTURER'S RECOMMENDATIONS, USING APPROPRIATE PVC PIPE CLEANER/PRIMER AND SOLVENT CEMENT.

C. PIPES AND FITTINGS

1. INSTALL ACCORDING TO MANUFACTURER'S RECOMMENDATIONS INCLUDING SNAKING IN OF PVC PIPE TO PREVENT EXCESSIVE STRAIN WHEN CONTRACTING IN COLD WEATHER.
2. SOLVENT WELD FITTINGS SHALL CONFORM TO SCHEDULE 40 OR SCHEDULE 80 PVC DIMENSIONS AND SPECIFICATIONS FOR SOLVENT WELD FITTINGS.

D. LATERAL LINES AND RISERS

1. INSTALL ACCORDING TO MANUFACTURER'S RECOMMENDATIONS USING STANDARD TECHNIQUES.
2. INSTALL RISERS SUCH THAT NO EXCESSIVE MOVEMENT OCCURS WHILE SPRINKLER HEAD IS IN OPERATION. HEIGHT OF RISERS TO BE IN ACCORDANCE WITH PLANNED AND EXISTING PLANT MATERIAL. HEIGHT OF ALL RISERS IS SUBJECT TO APPROVAL OF LANDSCAPE ARCHITECT.
3. PLUG LINES IMMEDIATELY UPON INSTALLATION TO MINIMIZE INFILTRATION OF FOREIGN MATTER.
4. FLUSH LATERAL LINES AND RISERS PRIOR TO INSTALLATION OF SPRINKLER HEADS.
5. ABOVE GROUND RISERS SHALL MATCH EXISTING ON SITE.

3.06 TRENCHING

A. ALL MAINLINE TO BE INSTALLED IN SEPARATE TRENCHING PROCESS FROM LATERAL LINES.

B. THE INITIAL BACKFILL WILL ALWAYS BE PLACED BY HAND AND SHOVELED IN EVENLY ALONG BOTH SIDES OF THE PIPE AND HAND TAMPED INTO PLACE. CARE WILL BE EXERCISED TO INSURE THAT SOIL DOES NOT BRIDGE AND FINAL TO GO UNDER THE PIPE. THE SOIL IN THE TRENCH SHALL BE BACKFILLED TO THE POINT OF THE SAME CONDITION OF THE DENSITY OF THE SURROUNDING SOIL.

C. IN BACKFILLING TRENCHES, THE ADDITION OF WATER SHOULD BE LIMITED TO ACHIEVING OPTIMUM MOISTURE CONTENT FOR TAMPING PROCEDURES. THE CONTRACTOR SHALL NOT CROWN THE BACKFILL ON THE TRENCH AREA WITH THE THOUGHT THAT IT WILL EVENTUALLY SETTLE; THIS WILL NOT BE ACCEPTED AS A FINISHED JOB. ALL EXCESS MATERIALS SHALL BE REMOVED FROM THE SITE IN A SATISFACTORY MANNER.

D. DURING THE ENTIRE PROSECUTION OF THE WORK, THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL OPEN EXCAVATIONS AND AS A MEANS OF PROTECTION, SHALL KEEP SUCH PROTECTIVE DEVICES BURIED AT PROPER INTERVALS ALONG THE EXCAVATION TO PROTECT THE PUBLIC FROM INJURY.

E. TRENCHING AND EXCAVATION IN NEWLY SODDED AREAS: PRIOR TO TRENCHING AND EXCAVATION REMOVE SOD, PRESERVE, AND REPLACE AFTER BACKFILLING IS COMPLETED.

F. TRENCHING AND EXCAVATION IN ESTABLISHED GRASS OR NEWLY SEEDED AREAS: AFTER TRENCHING, EXCAVATION AND BACKFILLING IS COMPLETED, RE-GRADE TRENCHED AREA CONSISTENT WITH SURROUNDING AREA AND RESEED WITH TURF SEED MATCHING EXISTING GRASS OR SEED. MULCH SEED AFTER BROADCASTING.

G. TRENCHING AND EXCAVATION THROUGH EXISTING ASPHALT OR CONCRETE: CUTTING, REMOVAL AND REPLACEMENT OF ASPHALT OR CONCRETE IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR.

H. TRENCHING AND EXCAVATION NEAR EXISTING TREES: IRRIGATION CONTRACTOR SHALL PAINT THE PROPOSED TRENCHING OR EXCAVATION WHICH OCCURS WITHIN THE "DRIP LINE" OR WITHIN FIFTY (50) FEET OF THE TRUNKS OF THE EXISTING TREES, WHICHEVER IS GREATER. IRRIGATION CONTRACTOR MUST CONTACT THE OWNER'S REPRESENTATIVE FOR REVIEW OF THE PROPOSED TRENCHING AND EXCAVATION LINES PRIOR TO PROCEEDING WITH THE WORK. OWNER'S REPRESENTATIVE MAY ADJUST PROPOSED TRENCHING AND EXCAVATION LINES IN ORDER TO AVOID DAMAGE TO TREE ROOT SYSTEMS AND OTHER PLANTS. SUCH ADJUSTMENTS SHALL BE MADE BY THE IRRIGATION CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

I. BACKFILLING

1. BACKFILL MATERIAL SHALL BE FREE FROM ROCKS, LARGE STONES, AND OTHER UNSUITABLE MATERIAL WHICH COULD DAMAGE PIPE OR CREATE SETTLING PROBLEMS. BACKFILL IN SIX (6) LIFTS AND TAMP AFTER EACH LIFT TO PREVENT EXCESSIVE SETTLING.
2. BACKFILL TRENCHES WITH PLASTIC PIPE WHEN PIPE IS COOL TO AVOID EXCESSIVE CONTRACTION IN COLD WEATHER. BACKFILLING DURING SUMMER SEASON OR ON OTHER WARM DAYS MAY BE DONE IN THE EARLY MORNING HOURS, OR PIPE MAY BE WATER COOLED PRIOR TO BACKFILLING.
3. MINIMUM DEPTH OF COVER OF PIPE IS AS FOLLOWS: ONE - HALF (1/2) TO ONE (1) INCH: TWELVE (12) INCHES/ ONE AND ONE - QUARTER (1 ¼) TO TWO (2) INCH: FIFTEEN (15) INCHES / 3 & 4 INCH: TWENTY-FOUR (24) INCHES

3.07 SPRINKLER HEADS

A. SPRINKLERS WITH A 1" AND LARGER BOTTOM INLET SHALL BE INSTALLED ON SWING JOINTS, MINIMUM 3" OFF INSIDE EDGE OF CURBS, DRIVES AND SIDEWALKS. SPRINKLER WITH A 3/4" AND SMALLER INLET MAY BE INSTALLED USING FLEXIBLE SWING JOINTS.

B. LOW POP UP SPRINKLER HEADS: INSTALL IN SUCH MANNER THAT TOP IS FLUSH WITH FINISH GRADE. WHERE FINISH GRADE HAS NOT BEEN ESTABLISHED EXTEND RISER A MINIMUM OF TWELVE (12) INCHES ABOVE EXISTING GRADE TO MARK LOCATION OF HEAD. AFTER FINISH GRADE IS ESTABLISHED INSTALL HEADS AT SPECIFIED HEIGHT.

C. HIGH POP UP SHRUB HEADS: FINISH HEIGHT TO BE PROPOSED BY IRRIGATION CONTRACTOR AS A FUNCTION OF PLANTS SPECIFIED ON LANDSCAPE PLANS AND NOTED ON IRRIGATION DESIGN SUBMITTAL.

D. BACKFILL AROUND SPRINKLER HEAD ASSEMBLY IN SUCH MANNER AS TO STABILIZE THE SPRINKLER HEAD SO THAT NO LATERAL MOTION OCCURS DURING OPERATION.

E. SPRINKLER HEADS ON RISERS: UTILIZE A SCHEDULE 80 T.O.E. NIPPLE. IF GREATER THAN 24" HEIGHT IS REQUIRED, PROVIDE FITTING IN THE GROUND WITH A SOLVENT WELD 90 DEGREE ELBOW WITH THE APPROPRIATE LENGTH OF PIPE GLUED TO IT AND COMING OUT OF THE GROUND TO THE DESIRED HEIGHT. GLUE MALE ADAPTER TO THE RISER TO ALLOW FOR THE CONNECTION OF THE SPRINKLER HEAD. STABILIZE RISER BY FASTENING IT TO REBAR AS REQUIRED. HEIGHT OF ALL HEADS IN BED AREAS TO BE PROPOSED BY IRRIGATION CONTRACTOR AS A FUNCTION OF PLANTS SPECIFIED ON LANDSCAPE PLANS.

F. LANDSCAPE DRIP LINE SHALL BE LOCATED IN A MANNER THAT WILL PROVIDE OPTIMUM CONCENTRATION OF WATER TO PLANT MATERIAL.

3.08 ELECTRIC CONTROL WIRES

A. INSTALL CONTROL WIRES IN ORDERLY FASHION, LOCATE IN MAIN LINE TRENCH. BUNDLE WIRES TOGETHER AND TAPE AT TEN (10) FOOT INTERVALS. POSITION WIRES TO THE RIGHT OF THE WATER SUPPLY LINE IN THE DIRECTION OF THE WATER FLOW.

B. PROVIDE LOOPED SLACK AT DIRECTIONAL CHANGES IN SUPPLY LINE TO ALLOW FOR CONTRACTION OF WIRES.

C. KEEP WIRE SPLICES TO A MINIMUM AND PROVIDE TEN (10) INCH ROUND VALVE BOX AT EACH SPLICE LOCATION.

D. PASS WIRES UNDER EXISTING OR FUTURE PAVING, CONSTRUCTION, ETC., THROUGH PVC SLEEVES PROVIDED BY GENERAL CONTRACTOR.

E. ELECTRICAL COMPONENTS, DEVICES, AND ACCESSORIES: LISTED AND LABELED AS DEFINED IN NFPA 70, ARTICLE 100, BY A TESTING AGENCY ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION.

F. GROUND ELECTRIC-POWERED CONTROLLERS, VALVES, AND DEVICES.

1. TIGHTEN ELECTRICAL CONNECTORS AND TERMINALS ACCORDING TO MANUFACTURER'S PUBLISHED TORQUE-TIGHTENING VALUES. IF MANUFACTURER'S TORQUE VALUES ARE NOT INDICATED, USE THOSE SPECIFIED IN UL 486A AND UL 486B.

G. ARRANGE FOR ELECTRIC-POWER CONNECTIONS TO CONTROLLERS, CONTROL VALVES, AND DEVICES THAT REQUIRE POWER. ELECTRIC POWER, WIRING, AND DISCONNECT SWITCHES ARE SPECIFIED IN DIVISION 16 SECTIONS.

3.09 CONTROL EQUIPMENT: ALL AUTOMATIC VALVES AND CONTROLLERS SHALL BE INSTALLED FOLLOWING THE RECOMMENDATIONS OF THE MANUFACTURER OF SAID EQUIPMENT AND IN ACCORDANCE WITH ANY DETAILED DRAWINGS WHICH MAY ACCOMPANY THESE SPECIFICATIONS AS PART OF THE CONTRACT DOCUMENTS. LOCATION OF CONTROLLER(S) SHALL BE APPROVED BY THE OWNER'S REPRESENTATIVE AND THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.

3.10 VALVE BOXES: ALL VALVES ARE TO BE HOUSED IN VALVE BOXES. INSTALL ACCORDING TO MANUFACTURER'S RECOMMENDATIONS AND ANY DETAILED DRAWINGS WHICH MAY ACCOMPANY THESE SPECIFICATIONS AS PART OF THE CONTRACT DOCUMENTS. POSITION BOXES AT A HEIGHT WHERE THEY WILL NOT INTERFERE WITH MAINTENANCE MACHINERY (E.G., MOWERS) AND SUCH THAT SOIL AND MULCH DO NOT WASH INTO THE BOX. IN ESSENCE, VALVE BOXES TO BE INSTALLED FLUSH WITH GRADE.

3.11 BACKFLOW PREVENTER: INSTALLATION IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND ALL FEDERAL, STATE AND LOCAL CODES.

3.12 BALANCING AND ADJUSTMENT: BALANCE AND ADJUST THE VARIOUS COMPONENTS OF THE SPRINKLER SYSTEM SO THAT THE OVERALL OPERATION OF THE SYSTEM IS MOST EFFICIENT. THIS INCLUDES SYNCHRONIZATION OF THE CONTROLLERS, ADJUSTMENTS TO PRESSURE REGULATORS, PART CIRCLE SPRINKLER HEADS, AND INDIVIDUAL STATION ADJUSTMENTS ON THE CONTROLLERS. THE IRRIGATION CONTRACTOR MAY CALL IN THE LANDSCAPE ARCHITECT TO AID IN THE BALANCING AND ADJUSTMENT OF THE SYSTEM.

3.13 OPERATION TESTING: UPON COMPLETION OF THE IRRIGATION SYSTEM, AND AFTER HEAD INSTALLATION, TEST THE ENTIRE SYSTEM FOR PROPER OPERATION. FLUSH ALL AIR FROM THE SYSTEM AND CHECK COMPONENTS FOR PROPER OPERATION.

3.14 AS _ BUILT DRAWINGS: AS _ BUILT DRAWINGS SHALL INCLUDE LOCATIONS OF ALL VALVES (AUTOMATIC AND MANUAL), WITH TRIANGULATED MEASUREMENTS TO EACH LOCATION, AS WELL AS ANY DEVIATIONS IN LOCATION OF PIPING AND HEADS AS REPRESENTED BY THE IRRIGATION DESIGN SUBMITTAL.

3.15 OWNER ORIENTATION

A. UPON COMPLETION OF THE WORK AND FINAL ACCEPTANCE BY THE OWNER'S REPRESENTATIVE AND THE LANDSCAPE ARCHITECT, THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR THE ORIENTATION OF MAINTENANCE PERSONNEL IN THE OPERATION, MAINTENANCE, AND REPAIR OF THE SYSTEM. FURNISH COPIES OF ALL AVAILABLE PARTS LISTS, TROUBLE SHOOTING LISTS, INSTRUCTION SHEETS, AND SPECIFICATION SHEETS TO THE OWNER'S REPRESENTATIVE PRIOR TO FINAL PAYMENT.

B. SET INITIAL WATERING SCHEDULES AND PROGRAMMING OF THE AUTOMATIC CONTROLLER(S). CHANGES IN THE SCHEDULES AND PROGRAMMING AND INSTRUCTION ON HOW TO MAKE SUCH CHANGES IS THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR.

C. PROVIDE A PROGRAM AND ZONING CHART: FOR EACH IRRIGATION ZONE, LIST THE FOLLOWING ITEMS IN AN EXCEL SPREADSHEET.

1. ZONE NUMBER.
2. REMOTE CONTROL VALVE SIZE.
3. FEED PIPE SIZE.
4. SPRINKLER COMPLEMENT: QUANTITY, MODEL, NOZZLE NUMBER
5. DRIP TUBE COMPLEMENT: MODEL, EMITTER, SPACING.
6. DESIGN PRESSURE.
7. DESIGN FLOW.
8. COVERAGE ARC OF SPRINKLERS.
9. PRECIPITATION RATE, INCHES PER HOUR.
10. RUNTIME REQUIRED FOR APPLYING 0.2 INCHES.

D. PROVIDE A WRITTEN DESCRIPTION AND SCHEDULE OF ANNUAL MAINTENANCE REQUIREMENTS TO THE OWNER'S REPRESENTATIVE AT THE FINAL INSPECTION.

3.16 FLUSHING DRIP AND SYSTEMS

A. RECOMMENDED DRIPLINE AND EMITTER LATERAL FLUSHING PROCEDURES.

B. FLUSH THE SYSTEM COMPLETELY AFTER ANY REPAIRS ARE MADE AND MONITOR SYSTEM OPERATION CLOSELY UNDER REGULAR SYSTEM FLUSHING SCHEDULE.

C. CHECK THE PRESSURE AT THE SUPPLY AND FLUSH HEADERS ON A REGULAR BASIS AND COMPARE WITH THE PRESSURE READINGS TAKEN AFTER INSTALLATION.

D. RECOMMENDED DRIPLINE AND EMITTER LATERAL LEAKAGE TESTING PROCEDURES.

E. SUBJECT INSTALLED DRIPLINE TUBING AND EMITTER LATERAL PIPING TO WATER PRESSURE EQUAL TO SPECIFIED OPERATING PRESSURE FOR TEN (10) MINUTES. TEST WITH CONTROL ZONE COMPONENTS AND DRIPLINE FLUSH VALVE COMPONENTS INSTALLED.

F. PARTIALLY BACKFILL BURIED PIPE AND TUBING TO PREVENT MOVEMENT UNDER PRESSURE. EXPOSE COUPLINGS, FITTINGS, AND VALVE COMPONENTS.

G. VISUALLY INSPECT VALVE ASSEMBLIES AND FITTINGS FOR LEAKAGE AND REPLACE DEFECTIVE PIPE, FITTING, JOINT, VALVE, OR APPURTENANCE. REPEAT TEST UNTIL TEST SEGMENT IS FREE FROM LEAKS. CEMENT OR CAULKING TO SEAL LEAKS IS PROHIBITED.

3.17 WINTERIZING SYSTEM:

A. IF THE OWNER'S REPRESENTATIVE SO REQUIRES, IRRIGATION PIPING MUST BE WINTERIZED BY BLOWING THE SYSTEM CLEAR OF WATER USING COMPRESSED AIR (EIGHTY (80) PSI MAXIMUM) ADMITTED INTO THE PIPING AT A QUICK COUPLING VALVE OR HOSE BIB LOCATED AT A HIGHER ELEVATION ON THE SYSTEM PIPING. ACTIVATE INDIVIDUAL ZONES, HIGHER ZONES FIRST, THEN PROCEED SUCCESSIVELY THROUGH THE SYSTEM TOWARDS LOWER ELEVATIONS. PROCEED THROUGH ALL ZONES TWICE. THE AIR COMPRESSOR USED TO WINTERIZE THE SYSTEM MUST HAVE AN ENGINE SEPARATE FROM THE COMPRESSOR TANKS TO PREVENT HIGH TEMPERATURE AIR FROM BEING INJECTED DIRECTLY INTO THE PVC PIPING. IRRIGATION CONTRACTOR SHALL PROVIDE A COMPLETE SPRING START UP AT NO ADDITIONAL CHARGE. OWNER'S MAINTENANCE STAFF MUST BE PRESENT AT THE TIME OF THE WINTERIZING.

3.18 CLEAN UP AND PROTECTION

A. DURING IRRIGATION WORK KEEP PROJECT SITE CLEAN AND ORDERLY.

B. UPON COMPLETION OF WORK CLEAR GROUNDS OF DEBRIS, SUPERFLUOUS MATERIALS AND ALL EQUIPMENT. REMOVE FROM SITE TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE AND THE LANDSCAPE ARCHITECT.

C. PROTECT IRRIGATION WORK AND MATERIALS FROM DAMAGE DUE TO IRRIGATION OPERATIONS, OPERATIONS BY OTHER CONTRACTORS AND TRADES, AND TRESPASSERS. MAINTAIN PROTECTION UNTIL DATE OF SUBSTANTIAL COMPLETION.

D. COVER ALL OPENINGS IN THE SYSTEM AS IT IS BEING INSTALLED TO PREVENT OBSTRUCTIONS IN THE PIPE AND THE BREAKAGE, MISUSE, OR DISFIGUREMENT OF THE EQUIPMENT.

E. THEFT: IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR THEFT OF EQUIPMENT AND MATERIAL AT THE JOB SITE BEFORE, DURING, AND AFTER INSTALLATION, UNTIL DATE OF SUBSTANTIAL COMPLETION OF THE WORK IN TOTAL.

3.19 COMMISSIONING

A. STARTING PROCEDURES: FOLLOW MANUFACTURER'S WRITTEN PROCEDURES. IF NO PROCEDURES ARE PRESCRIBED BY MANUFACTURERS, PROCEED AS FOLLOWS:

1. VERIFY THAT SPECIALTY VALVES AND THEIR ACCESSORIES ARE INSTALLED AND OPERATE CORRECTLY.
2. VERIFY THAT SPECIFIED TESTS OF PIPING ARE COMPLETE.
3. VERIFY THAT SPRINKLERS AND DEVICES ARE CORRECT TYPE.
4. VERIFY THAT DAMAGED SPRINKLERS AND DEVICES ARE REPLACED WITH NEW MATERIALS.
5. VERIFY THAT POTABLE-WATER SUPPLY CONNECTIONS HAVE BACKFLOW PREVENTERS.
6. ENERGIZE CIRCUITS TO ELECTRICAL EQUIPMENT AND DEVICES.
7. ADJUST OPERATING CONTROLS.

B. OPERATIONAL TESTS: MEASURE AND RECORD WATER FLOW RATE AND AREA COVERAGE AT EACH SPRINKLER. ADJUST TO ACHIEVE INDICATED VALUES.

3.20 INSPECTION, ACCEPTANCE, RETAINAGE AND PAYMENT

A. UPON COMPLETION OF WORK, THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE AND THE LANDSCAPE ARCHITECT AT LEAST TEN (10) DAYS PRIOR TO REQUESTED DATE OF REVIEW FOR SUBSTANTIAL COMPLETION OF ALL PORTIONS OF THE WORK. LANDSCAPE ARCHITECT WILL ISSUE A PUNCH LIST FOR WORK TO BE CORRECTED. ALL WORK ON THE PUNCH LIST MUST BE COMPLETED WITHIN FIVE (5) WORKING DAYS FROM THE DATE OF INSPECTION. WHERE IRRIGATION WORK DOES NOT COMPLY WITH REQUIREMENTS, REPLACE REJECTED WORK. IN UNUSUAL CIRCUMSTANCES A LONGER TIME PERIOD MAY BE GRANTED BY THE OWNER'S REPRESENTATIVE. IF SUCH REPLACEMENTS ARE NOT COMPLETED WITHIN THE TIME SPECIFIED, THE IRRIGATION CONTRACTOR MAY BE CONSIDERED TO BE IN DEFAULT OF THE CONTRACT, AND THE OWNER'S REPRESENTATIVE MAY USE THE CONTRACT RETAINAGE TO HIRE OTHER CONTRACTORS TO FINISH THE WORK.

B. IT WILL BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO PROVIDE A RELIABLE COMMUNICATION SYSTEM (I.E., TWO WAY RADIOS OR REMOTE RADIO CONTROL ACTIVATION SYSTEM) FOR SUBSTANTIAL COMPLETION AND FINAL INSPECTIONS.

C. IF AN INSPECTION / ACCEPTANCE WALK-THRU HAS BEEN SCHEDULED AND THE LANDSCAPE ARCHITECT ARRIVES AT THE SITE AND DETERMINES THAT THE IRRIGATION SYSTEM IS NOT SUBSTANTIALLY COMPLETE (ALL SYSTEM COMPONENTS IN PLACE, OPERATIONAL, AND CHECKED WITH 100% SPRINKLER COVERAGE), THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS INCURRED BY THE LANDSCAPE ARCHITECT TO REVISIT THE SITE AT A FUTURE DATE. REIMBURSABLE EXPENSES INCLUDE, BUT ARE NOT LIMITED TO, AUTOMOBILE MILEAGE, AIRFARE, LANDSCAPE ARCHITECT'S HOURLY BILLING RATE, PARKING FEE, MEALS, RENTAL CAR, ETC. ALL INCURRED EXPENSES WILL BE DEDUCTED FROM THE FINAL CONTRACT AMOUNT OR THE CONTRACT RETAINAGE.

D. CERTIFICATE OF SUBSTANTIAL COMPLETION WILL BE ISSUED FOR SATISFACTORY COMPLETION OF REPAIRS AND REPLACEMENTS AND COMPLETION OF AS_BUILT DRAWINGS. IF PUNCH LIST ITEMS ARE ISSUED WITH THE CERTIFICATE, THEY MUST BE CORRECTED WITHIN FIVE (5) WORKING DAYS.

E. FINAL ACCEPTANCE: UPON SATISFACTORY COMPLETION OF REPAIRS AND/OR REPLACEMENTS THE LANDSCAPE ARCHITECT WILL CERTIFY, IN WRITING, FINAL ACCEPTANCE OF THE WORK. THE FINAL ACCEPTANCE CERTIFICATION ISSUED BY THE LANDSCAPE ARCHITECT WILL SERVE AS EVIDENCE THAT CONTRACTOR'S OBLIGATIONS HAVE BEEN MET.

REV	DATE	DESCRIPTION	BY
1	02.21.2020	PRELIMINARY/FINAL PLAN REVIEW REVISIONS	RMY
	01.22.2020	CONSTRUCTION DOCUMENTS	RMY

STEPHANIE LINDSAY GILLARD
LICENSED
879
2-21-20
KANSAS
LANDSCAPE ARCHITECT

olsson
302 S. 4th Street, Suite 110
Manhattan, Kansas 66502
www.olsson.com
TEL 785.539.6900
FAX 785.539.6901

PREPARED FOR:
McDonald's USA, LLC

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DRAWN BY: RMY
STD ISSUE DATE: 1/22/2020
REVIEWED BY: MAP
DATE ISSUED: 1/22/2020

TITLE: IRRIGATION SPECIFICATIONS

DESCRIPTION: 2018 PROTOTYPE 45'X97' + 10 EXPANSION

SITE ID: 015-0071
SITE ADDRESS: 605 S 7TH ST, KANSAS CITY, KS 66105

015-0071.00.0

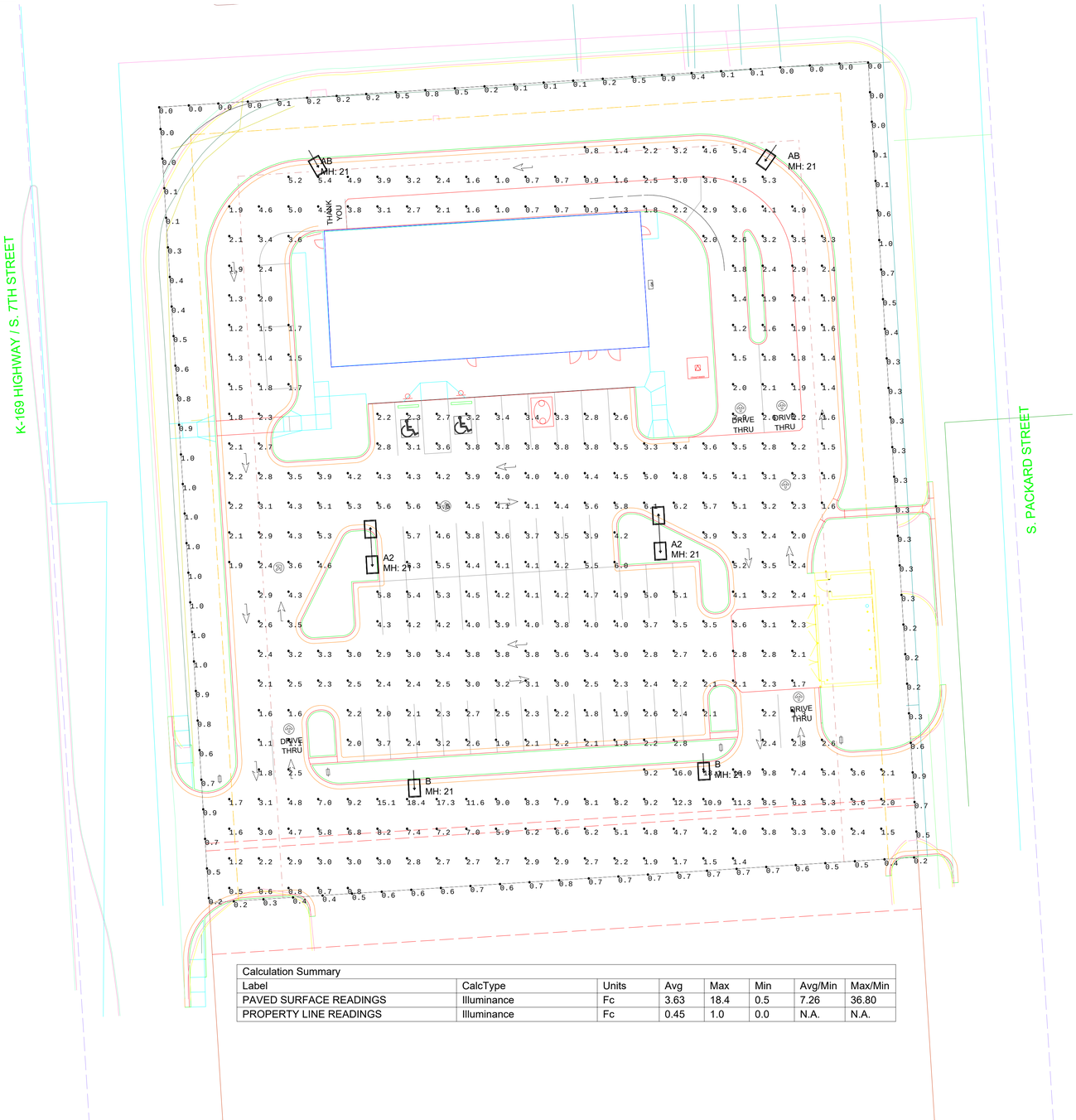
SHEET NO. L1.2

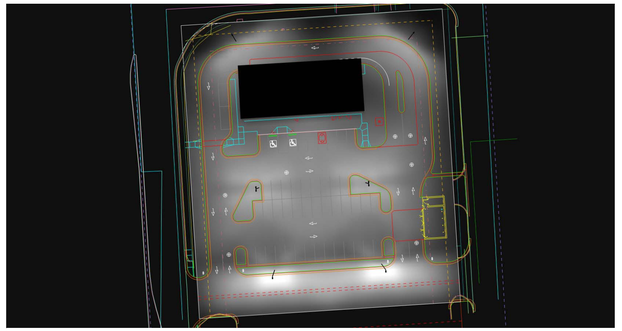
DWG: F:\2019\1001-1500\019-1175\40-Design\AutoCAD\Final Plans\Sheets\GNCV\C_LSC_0191175.dwg USER: ryenni
DATE: Feb 20, 2020 3:47pm XREFS: C_PTBLK_0191175 C_PBASE_0191175 C_DBASE_0191175

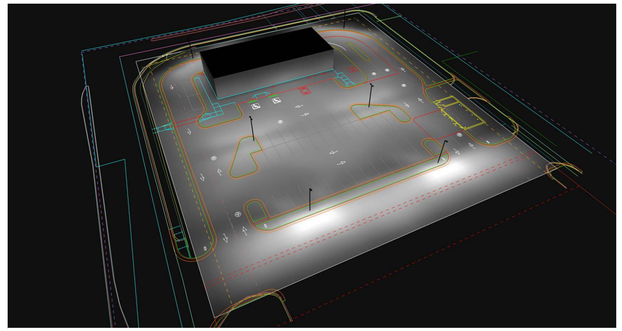
NOTES:

1. THE FOOTCANDLE LEVELS AS SHOWN ARE BASED ON THE FOLLOWING CRITERIA. ANY SUBSTITUTIONS IN SPECIFIED FIXTURES OR CHANGES TO LAYOUT WILL AFFECT LIGHTING LEVELS SHOWN AND WILL NOT BE THE RESPONSIBILITY OF SECURITY LIGHTING.

2. DISTANCE BETWEEN READINGS 10'







Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
PAVED SURFACE READINGS	Illuminance	Fc	3.63	18.4	0.5	7.26	36.80
PROPERTY LINE READINGS	Illuminance	Fc	0.45	1.0	0.0	N.A.	N.A.

** - SPECIFY COLOR

Luminaire Schedule								
Symbol	Qty	Label	Arrangement	LLF	Description	Lum. Watts	EPA	Mtg Height	Pole Type
	2	B	SINGLE	0.900	VP-L-96L-280-5K7-2	276.7	1	21	SSP-4118-GL-**-TT (4")
	2	A2	BACK-BACK	0.900	VP-L-96L-280-5K7-4W	280	2	21	SSP-4118-GL-**-TT (4")
	2	AB	SINGLE	0.900	VP-L-96L-280-5K7-4W-BC	280	2	21	

* PROJECT WIND LOAD CRITERIA BASED ON:
ASCE 7-10 WIND SPEEDS (3-SEC PEAK GUST MPH)
50 YEAR MEAN RECURRENCE INTERVAL

THIS DRAWING MEETS OR EXCEEDS McDONALDS CURRENT ILLUMINATION SPECIFICATIONS OF A 3-4 FOOTCANDLE AVERAGE, UNLESS SUPERSEDED BY OTHER REQUIREMENTS.

P1.0

REGIONAL DRAWING #
15-0071

1. THIS LIGHTING DESIGN IS BASED ON INFORMATION SUPPLIED BY OTHERS TO SECURITY LIGHTING SYSTEMS. SITE DETAILS PROVIDED HEREON ARE REPRODUCED ONLY AS A VISUALIZATION AID. FIELD DEVIATIONS MAY SIGNIFICANTLY AFFECT PREDICTED PERFORMANCE. PRIOR TO INSTALLATION, CRITICAL SITE INFORMATION (POLE LOCATIONS, ORIENTATION, MOUNTING HEIGHT, ETC.) SHOULD BE COORDINATED WITH THE CONTRACTOR AND/OR SPECIFIER RESPONSIBLE FOR THE PROJECT.

2. LUMINAIRE DATA IS TESTED TO INDUSTRY STANDARDS UNDER LABORATORY CONDITIONS. OPERATING VOLTAGE AND NORMAL MANUFACTURING TOLERANCES OF LAMP, BALLAST, AND LUMINAIRE MAY AFFECT FIELD RESULTS.

3. CONFORMANCE TO FACILITY CODE AND OTHER LOCAL REQUIREMENTS IS THE RESPONSIBILITY OF THE OWNER AND/OR THE OWNER'S REPRESENTATIVE.

4. THIS LAYOUT MAY NOT MEET TITLE 24 OR LOCAL ENERGY REQUIREMENTS. IF THIS LAYOUT NEEDS TO E COMPLIANT WITH TITLE 24 OR OTHER ENERGY REQUIREMENTS, PLEASE CONSULT FACTORY WITH SPECIFIC DETAILS REGARDING PROJECT REQUIREMENTS SO THAT REVISIONS MAY BE MADE TO THE DRAWING.

SECURITY LIGHTING
2100 Golf Road, Suite 460, Rolling Meadows, IL 60008
1-800-544-4848

UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES

SCALE 1"=20' 0"

DRAWN BY BV

POINT-BY-POINT FOOTCANDLE PLOT FOR
MCDONALDS
605 S 7TH STREET
KANSAS CITY, KS

NATIONAL STORE NUMBER
6894

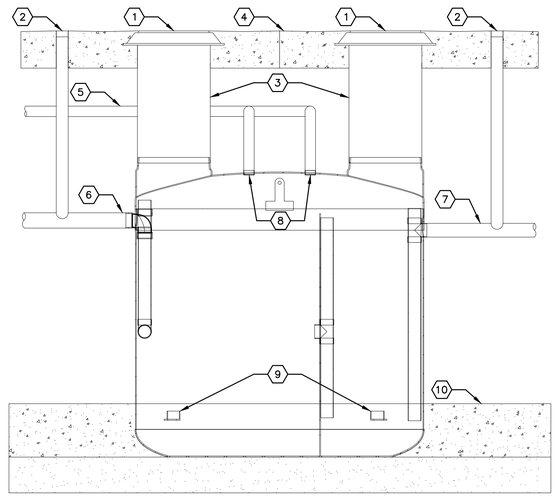
DATE 2/23/2020

DRAWING NUMBER SL2001009-Rev1.AGI

KEYED NOTES:
1. 24"ø MANWAY ACCESS COVER
2. 4" CLEAN-OUT
3. MANWAY EXTENSION TO FINISHED GRADE
4. CONCRETE SLAB FOR TRAFFIC LOADING
5. 3"ø VENT BACK TO BUILDING
6. 4"ø INLET
7. 4"ø OUTLET
8. 3"ø VENT CONNECTION
9. HOLD DOWN BRACKET
10. ANTI-BUOYANCY PAD FOR HIGH WATER TABLE INSTALLATIONS

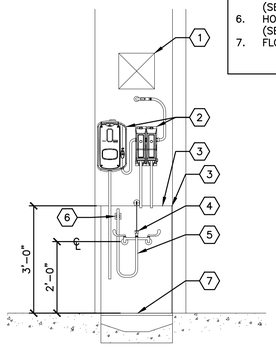
*SEE GREEN TURTLE PROCEPTOR INSTALLATION INSTRUCTIONS FOR ADDITIONAL INFORMATION.

LOADING DESIGN: 12' 0" UNSATURATED SOIL / AASHTO STANDARD HS20-44 LOAD RATING



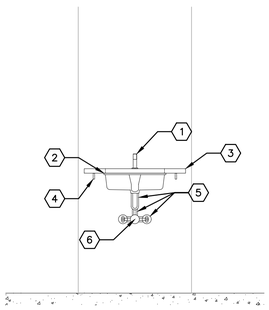
DETAIL
GREASE INTERCEPTOR INSTALLATION
SCALE: NONE
1 P3.0

KEYED NOTES:
1. ACCESS PANEL FOR THERMOSTATIC MIXING VALVE (SEE CHEMICAL SYSTEM INSTALLATION DETAIL)
2. ECOLAB CHEMICAL SYSTEM (SEE CHEMICAL SYSTEM INSTALLATION DETAIL)
3. 24"Wx36"H WALL GUARD (QTY. 2) FURNISHED WITH MOP SINK (SEE PLUMBING FIXTURE SCHEDULE)
4. MOP SINK FAUCET WITH INTEGRAL VACUUM BREAKER (SEE PLUMBING FIXTURE SCHEDULE)
5. HOSE FURNISHED WITH MOP SINK FAUCET (SEE PLUMBING FIXTURE SCHEDULE)
6. HOSE BRACKET FURNISHED WITH MOP FAUCET (SEE PLUMBING FIXTURE SCHEDULE)
7. FLOOR GRATE

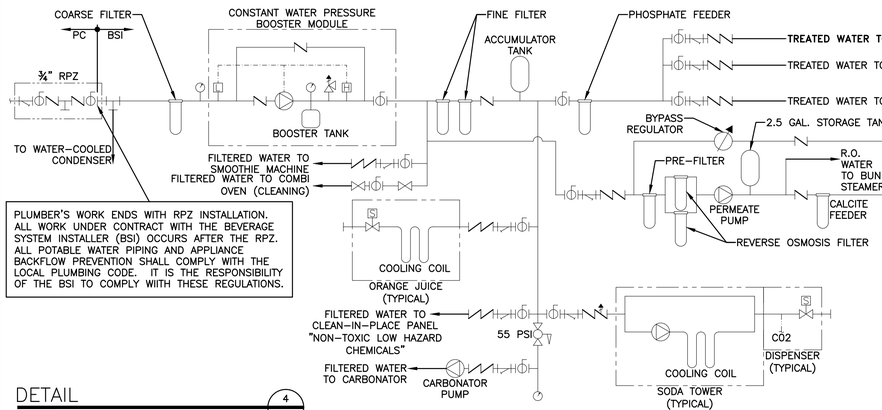


DETAIL
RECESSED MOP SINK
SCALE: ½"=1'-0"
2 P3.0

KEYED NOTES:
1. FAUCET (SEE PLUMBING FIXTURE SCHEDULE)
2. LAVATORY OR HAND SINK (SEE PLUMBING FIXTURE SCHEDULE)
3. CORIAN COUNTERTOP - TOILET ROOMS ONLY (FURNISHED BY G.C.)
4. LAVATORY CARRIER - TOILET ROOMS ONLY (SEE ARCHITECTURAL DRAWINGS)
5. OUTLINE OF ADA COMPLIANT WRAP (SEE PLUMBING FIXTURE SCHEDULE)
6. THERMOSTATIC MIXING VALVE (SEE VALVE SCHEDULE)

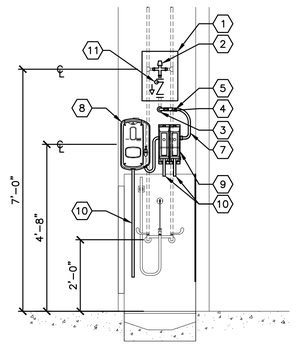


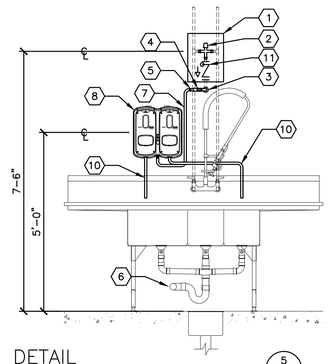
DETAIL
LAVATORY (OR HAND SINK)
SCALE: ½"=1'-0"
3 P3.0



PLUMBER'S WORK ENDS WITH RPZ INSTALLATION. ALL WORK UNDER CONTRACT WITH THE BEVERAGE SYSTEM INSTALLER (BSI) OCCURS AFTER THE RPZ. ALL POTABLE WATER PIPING AND APPLIANCE BACKFLOW PREVENTION SHALL COMPLY WITH THE LOCAL PLUMBING CODE. IT IS THE RESPONSIBILITY OF THE BSI TO COMPLY WITH THESE REGULATIONS.

DETAIL
BEVERAGE SYSTEM DISTRIBUTION SCHEMATIC
SCALE: NONE
4 P3.0



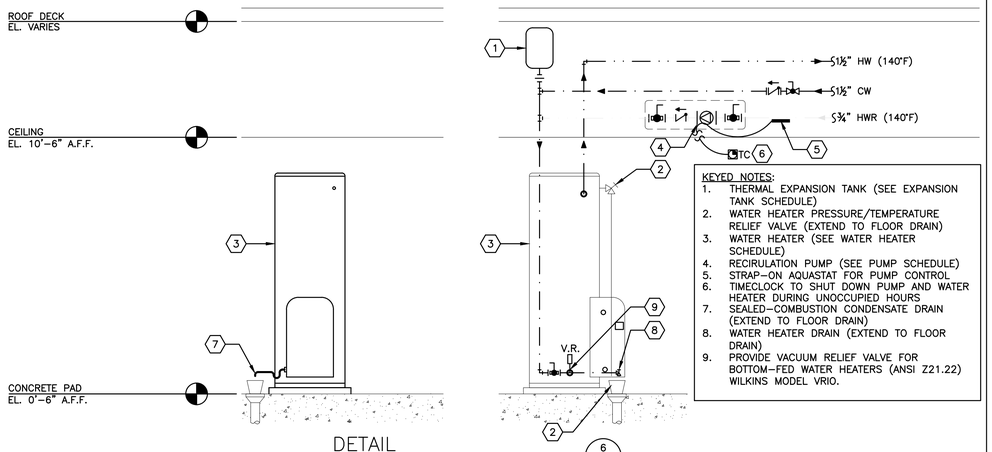


DETAIL
CHEMICAL SYSTEM INSTALLATION
SCALE: ½"=1'-0"
5 P3.0

KEYED NOTES:
1. 12"x12" ACCESS PANEL (COORDINATE INSTALLATION WITH G.C.)
2. THERMOSTATIC MIXING VALVE SET TO 110°F (SEE VALVE SCHEDULE)
3. PIPE THROUGH WALL WITH ESCUTCHEON PLATE
4. SHUT-OFF VALVE
5. ¾" MHT CONNECTION
6. 2" SANITARY DRAIN PIPE THROUGH WALL FOR DIRECT CONNECTION.

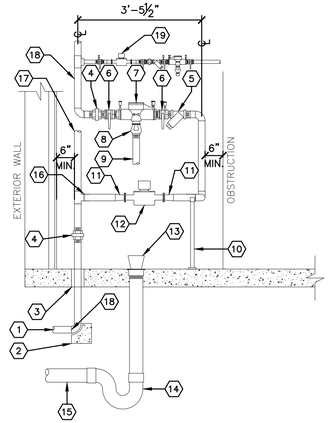
PLUMBER'S WORK ENDS AT MHT CONNECTION

7. HOSE TO CHEMICAL SYSTEM
8. ECOLAB SOLIDSENSE CHEMICAL DISPENSER
9. ECOLAB SMARTSHAPE CHEMICAL DISPENSER
10. CHEMICAL DISPENSING HOSE
11. 140° WATER SUPPLY WITH ASSE 1055 RATED BACK FLOW PREVENTOR.



KEYED NOTES:
1. THERMAL EXPANSION TANK (SEE EXPANSION TANK SCHEDULE)
2. WATER HEATER PRESSURE/TEMPERATURE RELIEF VALVE (EXTEND TO FLOOR DRAIN)
3. WATER HEATER (SEE WATER HEATER SCHEDULE)
4. RECIRULATION PUMP (SEE PUMP SCHEDULE)
5. STRAP-ON AQUASTAT FOR PUMP CONTROL
6. TIMECLOCK TO SHUT DOWN PUMP AND WATER HEATER DURING UNOCCUPIED HOURS
7. SEALED-COMBUSTION CONDENSATE DRAIN (EXTEND TO FLOOR DRAIN)
8. WATER HEATER DRAIN (EXTEND TO FLOOR DRAIN)
9. PROVIDE VACUUM RELIEF VALVE FOR BOTTOM-FED WATER HEATERS (ANSI Z21.22) WILKINS MODEL VRIO.

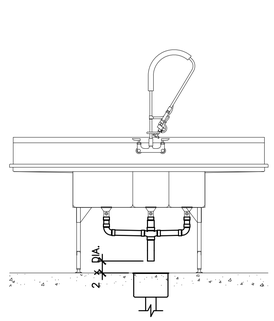
DETAIL
ELECTRIC WATER HEATER PIPING
SCALE: NONE
6 P3.0



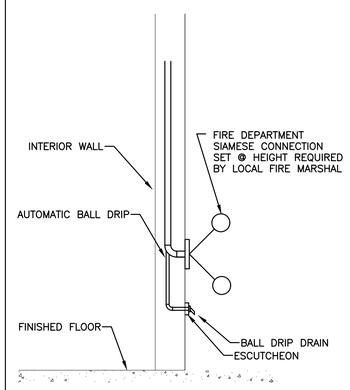
KEYED NOTES:
1. INCOMING UNDERGROUND WATER SERVICE SIZED PER FIRE PROTECTION CONTRACTOR'S HYDRAULIC CALCULATIONS
2. BLOCKING AT CHANGES IN DIRECTION
3. MINIMUM ½" ANNULAR CLEARANCE
4. UNION
5. BRONZE STRAINER
6. QUARTER-TURN BALL VALVE
7. REDUCED PRESSURE ZONE (RPZ) ASSEMBLY*
8. AIR GAP FOR RELIEF VALVE
9. PIPING FROM AIR GAP TO FLOOR DRAIN
10. GALVANIZED STEEL PIPE SUPPORTS AS REQUIRED
11. 2"x1½" BUSHING
12. 1½" WATER METER**
13. FLOOR DRAIN-PITCH FLOOR TOWARDS DRAIN
14. P-TRAP
15. PIPE TO SEWER-PITCH AND VENT PER CODE
16. 2" PIPE FOR WATER SERVICE
17. PIPE FOR FIRE SPRINKLER SYSTEM SIZED PER FIRE PROTECTION CONTRACTOR'S HYDRAULIC CALCULATIONS
18. WATER PIPING FROM 5 FT. FROM BUILDING TO CEILING PENETRATION SHALL BE COPPER.
19. 1" IRRIGATION SYSTEM, 1" SEWER DEDUCT METER AND RPZ BACKFLOW ASSEMBLY.

*RPZ BASED ON WATTS MODEL 009QT-S
**WATER METER BASED ON NEPTUNE MODEL T-10

DETAIL
INCOMING WATER SERVICE WITH RPZ, METER AND FIRE SPRINKLER
SCALE: ½"=1'-0"
7 P3.0



DETAIL
INDIRECT DRAINAGE PIPING (TYP.)
SCALE: ½"=1'-0"
8 P3.0



DETAIL
FIRE DEPARTMENT CONNECTION
WHEN REQUIRED BY FIRE MARSHAL
9 P3.0

REV	DATE	DESCRIPTION	BY
	01/23/20	PERMIT SET	WLW
	01/13/20	USRD PROGRESS SET REVIEW	WLW

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consulting engineers
Emanuelson-Podas, Inc.
705 Bush Lake Road
Eden Prairie, MN 55347
(952) 930-0050 | www.epinc.com

3801.0037

MICHAEL WEBER LICENSED 17648 KANSAS PROFESSIONAL ENGINEER

01/23/20

PREPARED BY:

PREPARED FOR: McDonald's USA, LLC

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TITLE: 2019 STANDARD BUILDING - BB20
4597F10-WOOD/WOOD

DESCRIPTION	
WOOD BEARING WALLS W/FIBER CEMENT SIDING & CI	
WOOD ROOF TRUSS FRAMING	
FIBER CEMENT PANEL/BATTEN/ALPOLIC PANEL/BRICK EXT. FINISH	
SITE ID	SITE ADDRESS
015-0071	605 SOUTH 7TH STREET, KANSAS CITY, KS

DRAWN BY	STD ISSUE DATE	DATE ISSUED	RD#
MJW	2019_11	01-23-20	19175

REVIEWED BY: WLW

SHEET NO.: 015-0071.00.0
P3.0
DETAILS

GENERAL PLUMBING NOTES

GENERAL:

1. ALL WORK PERFORMED SHALL BE IN ACCORDANCE WITH ALL LOCAL CODES AND ACCEPTABLE TO THE AUTHORITY HAVING JURISDICTION.
2. ALL PLUMBING WORK SHALL BE PERFORMED BY A LICENSED PLUMBER.
3. ALL DIMENSIONS, CLEARANCES AND TOLERANCES SHALL BE VERIFIED PRIOR TO INSTALLATION. ALL ROUGH-IN LOCATIONS SHALL BE COORDINATED WITH THE MANUFACTURER'S SUBMITTAL INFORMATION.
4. ALL DIMENSIONAL INFORMATION IS AS FOLLOWS (UNLESS NOTED OTHERWISE):
   A. UNDERGROUND PIPE IS TO FOUNDATION
   B. OVERHEAD PIPE IS TO FINISHED WALL
   C. ELEVATIONS ARE TO FINISHED FLOOR
5. ALL MATERIALS, FIXTURES AND EQUIPMENT USED SHALL BE IN ACCORDANCE WITH McDONALD'S SPECIFICATIONS. SPECIFICATIONS ARE CONTAINED WITHIN THESE DRAWINGS AND THE McDONALD'S PROJECT MANUAL. ANY CONTRACTOR IN NEED OF A COPY OF THE McDONALD'S PROJECT MANUAL SHALL CONTACT THE McDONALD'S AREA CONSTRUCTION MANAGER. ANY VARIANCE FROM THE McDONALD'S SPECIFICATIONS SHALL BE REVIEWED AND APPROVED BY THE ENGINEER-OF-RECORD.
6. SEE COORDINATION SCHEDULE FOR ADDITIONAL SCOPE OF WORK.
7. ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH ITS LISTING AND/OR THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
8. WHERE POOR SOIL CONDITIONS EXIST OR WHERE SUBSTANTIAL SETTLEMENT OF EITHER THE PIPING, THE BUILDING OR ADJACENT WALKS, PLANTERS, ETC., MAY OCCUR, THE CONTRACTOR SHALL PROVIDE ADEQUATE UNDERSLAB STAINLESS STEEL PIPE HANGERS OR APPROVED OTHER SUPPORT.
9. ALL PIPE SLEEVES SHALL BE PROPERLY SEALED AND INSULATED TO PREVENT HEAT LOSS AND SEEPAGE.
10. ALL PIPE INSULATION SHALL BE PROTECTED FROM DAMAGE FROM PIPE HANGERS. PROTECTION SHALL BE LIGHT GAUGE GALVANIZED STEEL OR EQUAL.
11. ALL PENETRATIONS OF FIRE-RATED WALLS SHALL BE FIRESTOPPED WITH AN APPROVED AND LISTED FIRESTOPPING SYSTEM.

SANITARY AND VENT SYSTEMS:

1. THE BUILDING SANITARY PIPE SHALL BE LOCATED A MINIMUM OF 5 FT. FROM THE INCOMING WATER SERVICE. WHERE A 5 FT. SEPARATION IS NOT POSSIBLE, THE BOTTOM OF THE WATER SERVICE PIPE SHALL BE A MINIMUM OF 12 IN. ABOVE THE TOP OF THE HIGHEST POINT OF THE SANITARY PIPE.
2. ALL SANITARY AND VENT PIPE SHALL BE PVC TYPE DWV, ABS OR PROTECTO 401 LINED CAST-IRON WHERE REQUIRED BY CODE.
3. ALL HORIZONTAL SANITARY PIPE SHALL BE INSTALLED WITH A MINIMUM PITCH OF ¼" PER FOOT, OR IF THE (AHJ) ALLOWS AS FOLLOWS:

PIPE SIZE	MIN. SLOPE
2½" OR LESS	¼" PER FT.
3" TO 6"	⅛" PER FT.
8" OR LARGER	1/16" PER FT.

4. CLEANOUTS SHALL BE INSTALLED IN ALL HORIZONTAL DRAINAGE PIPE AND SHALL BE LOCATED NOT MORE THAN 100 FT. APART.
5. CLEANOUTS SHALL BE INSTALLED AT ALL CHANGES OF DIRECTION GREATER THAN 45 DEGREES. WHERE MORE THAN ONE CHANGE OF DIRECTION OCCURS IN A SINGLE PIPE RUN, ONLY ONE (1) CLEANOUT SHALL BE REQUIRED FOR EVERY 40 FEET OF DEVELOPED LENGTH.
6. CLEANOUTS SHALL BE INSTALLED ON PIPES PRIOR TO ANY SLAB PENETRATION.
7. WHERE PIPING IS LOCATED WITHIN WALL CAVITIES, ACCESS TO THE CLEANOUTS SHALL BE PROVIDED.
8. CLEANOUTS ON 6-IN. AND SMALLER PIPES SHALL BE PROVIDED WITH A CLEARANCE OF NOT LESS THAN 18 IN. CLEANOUTS ON 8-IN. AND LARGER PIPE SHALL BE PROVIDED WITH A CLEARANCE OF NOT LESS THAN 36 IN.
9. ALL SUSPENDED SANITARY AND VENT PIPE SHALL BE SUPPORTED AS FOLLOWS:

MATERIAL	MAX. HORIZ. SPACING	MAX. VERT. SPACING
ABS	4 FT.	10 FT.
PVC (TYPE DWV)	4 FT.	10 FT.
CAST-IRON (<10 FT. PIPE SECTIONS)	5 FT.	15 FT.
CAST-IRON (10 FT. PIPE SECTIONS)	10 FT.	15 FT.

10. ALL PLUMBING FIXTURES SHALL BE VENTED AND THE MAXIMUM DISTANCE FROM THE FIXTURE TRAP TO THE VENT SHALL BE AS FOLLOWS:

TRAP SIZE	SLOPE	DISTANCE
1¼"	¼" PER FT.	2'-6"
1½"	¼" PER FT.	3'-6"
2"	¼" PER FT.	5'-0"
3"	⅛" PER FT.	6'-0"
4" & LARGER	⅛" PER FT.	10'-0"

11. ALL PLUMBING VENTS THROUGH THE ROOF SHALL TERMINATE A MINIMUM OF 12 INCHES ABOVE THE ROOF AND SHALL BE LOCATED A MINIMUM OF 8 FT. FROM ANY PARAPET WALL. WHERE A VENT TERMINATES WITHIN 8 FT. OF A PARAPET WALL, THE VENT SHALL TERMINATE A MINIMUM OF 6 INCHES ABOVE THE PARAPET.
12. ALL PLUMBING VENTS SHALL TERMINATE A MINIMUM OF 10 FT. HORIZONTALLY FROM ANY OUTDOOR AIR INTAKE. WHERE A PLUMBING VENT IS LOCATED WITHIN 10 FT. OF AN INTAKE, THE VENT SHALL TERMINATE A MINIMUM OF 3 FT. ABOVE THE INTAKE.
13. ALL SIDE WALL VENT TERMINATIONS SHALL BE PROTECTED TO PREVENT BIRDS OR RODENTS FROM ENTERING OR BLOCKING THE VENT OPENING.
14. ALL FLOOR DRAINS THAT DO NOT SERVE EQUIPMENT SHALL BE PROTECTED AGAINST DRYING OUT EITHER THROUGH THE INSTALLATION OF A TRAP PRIMER, DEEP SEAL TRAP OR PROSET TRAP GUARD. TRAP GUARD NOT ALLOWED IN KITCHEN AREA
15. ALL APPLIANCES SHALL DRAIN TO AN APPROVED SANITARY WASTE RECEPTOR (FLOOR SINK OR FLOOR DRAIN WITH FUNNEL). INDIRECT DRAINAGE FROM AN APPLIANCE SHALL MAINTAIN AN AIR GAP BETWEEN THE PIPE OUTLET AND THE TOP OF THE RECEPTOR. THE MINIMUM DISTANCE BETWEEN THE PIPE OUTLET AND THE TOP OF THE RECEPTOR SHALL BE TWICE THE DIAMETER OF THE APPLIANCE DRAIN PIPE.
16. THE PVC PLASTIC PIPING TO BE INSTALLED MUST COMPLY WITH ONE OF THE FOLLOWING ASTM STANDARDS: D2665, OR F891. THE INSTALLATION MUST COMPLY WITH ASTM STANDARD D2321
17. ALL PLASTIC PIPE USED FOR DRAIN, WASTE, AND VENT SYSTEM (ABS, PVC). SHALL COMPLY WITH ASTM D2661 OR F268 (ABS) AND D2665, D2949 OR F891 (PVC). ABOVE GRADE HORIZONTAL RUNS OF PLASTIC WASTE AND VENT PIPE CANNOT EXCEED 35 FEET IN TOTAL LENGTH. AND ABOVE GRADE VERTICAL STACKS CONSTRUCTED OF PLASTIC PIPE MAY EXCEED 35 FEET IN TOTAL HEIGHT ONLY IF AN APPROVED EXPANSION JOINT IS USED. SOLVENT WELD JOINTS IN PVC AND CPVC PIPE MUST INCLUDE USE OF PRIMER WHICH IS OF CONTRASTING COLOR TO THE PIPE AND CEMENT.
18. CAST IRON PIPE USED FOR ABOVE GROUND WASTE SYSTEMS MUST MEET ANSI STANDARD A21.2, A21.6, A21.8, A40.5, OR ASTM STANDARD A-74.

GREASE INTERCEPTORS:

1. SEE SITE PLAN FOR THE SIZE AND LOCATION OF THE GREASE INTERCEPTOR.
2. THE GREASE INTERCEPTOR SHALL BE INSTALLED IN A LOCATION THAT IS ACCESSIBLE FOR PUMPING.
3. THE GREASE INTERCEPTOR SHALL BE CONSTRUCTED OF FIBERGLASS OR PRECAST CONCRETE. GREASE INTERCEPTOR CONSTRUCTION SHALL CONFORM TO ALL LOCAL CODES.
4. PRECAST CONCRETE INTERCEPTORS SHALL BE CAPABLE OF 3,000 PSI COMPRESSIVE STRENGTH AT 28 DAYS, SHALL BE REINFORCED WITH BAR OR WIRE MESH AND SHALL BE COATED WITH A MINIMUM OF TWO(2) LAYERS OF NOVOL AC EPOXY ON THE INTERIOR. EPOXY SHALL BE SHERWIN WILLIAMS NOVA PLATE UHS OR EQUAL.
5. THE GREASE INTERCEPTOR SHALL BE VENTED IN ACCORDANCE WITH THE LOCAL CODE OR THE MANUFACTURER'S REQUIREMENTS.
6. ACCESS TO THE GREASE INTERCEPTOR SHALL BE PROVIDED WITH TWO (2) 24-IN. MANHOLES. ALL SURFACE WATER MUST DRAIN AWAY FROM MANHOLES.
7. PIPING INLET AND OUTLET SIDES SHALL BE CLEARLY LABELED ON THE TOP OF THE GREASE INTERCEPTOR TO INSURE PROPER INSTALLATION.

DOMESTIC SUPPLY SYSTEMS:

1. THE INCOMING WATER SERVICE PIPE SHALL BE LOCATED A MINIMUM OF 5 FT. FROM THE EXITING SANITARY PIPE. WHERE A 5 FT. SEPARATION IS NOT POSSIBLE, THE BOTTOM OF THE WATER SERVICE PIPE SHALL BE A MINIMUM OF 12 IN. ABOVE THE TOP OF THE HIGHEST POINT OF THE SANITARY PIPE.
2. ALL UNDERGROUND SITE PLUMBING SHALL CONFORM TO NSF 61, SHALL BE TYPE K COPPER TUBING OR COPPER PIPE, POLYETHYLENE (PE) OR CPVC. IF CPVC IS USED, FOAM INSULATION SHALL BE INSTALLED AT ALL CHANGES OF DIRECTION TO ACCOUNT FOR EXPANSION AND CONTRACTION. CPVC PIPE SHALL NOT BE USED PRIOR TO THE WATER METER. ALL COPPER PIPING MUST COMPLY WITH ASTM STANDARD B88. GALVANIZED STEEL PIPE SHALL MEET ASTM STANDARD A53.
3. INCOMING WATER SERVICE PRESSURE SHOULD BE BETWEEN 45 AND 55 PSI STATIC. WHERE WATER PRESSURE SERVICE EXCEEDS 80 PSI STATIC, AN APPROVED WATER-PRESSURE REDUCING VALVE WITH STRAINER CONFORMING TO ASSE 1003 SHALL BE INSTALLED. WHERE INCOMING WATER PRESSURE IS BELOW 45 PSI STATIC, A PRESSURE BOOSTER SYSTEM SHALL BE INSTALLED.
4. IF THE RESTAURANT HAS A COMBINED WATER AND FIRE SPRINKLER SERVICE, THE INCOMING WATER SERVICE SHALL BE SIZED BASED ON THE FIRE SPRINKLER CONTRACTOR'S HYDRAULIC CALCULATIONS.
5. PROVIDE A MINIMUM ½" ANNULAR CLEARANCE AROUND ALL PIPE SLAB PENETRATIONS.
6. A REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER (RPZ) SHALL BE INSTALLED AT THE INCOMING SERVICE WHERE REQUIRED BY CODE.
7. AN EXPANSION TANK SHALL BE INSTALLED ON THE COLD WATER LINE INLET TO THE WATER HEATER. SEE EXPANSION TANK SCHEDULE.
8. ALL WATER SUPPLY PIPE WITHIN 5 FT. OF THE BUILDING AND INSIDE THE BUILDING SHALL COMPLY WITH NSF 61 AND SHALL BE TYPE L COPPER TUBING, COPPER PIPE OR CPVC PIPE.
9. CPVC PIPE SHALL BE FLOWGUARD GOLD OR FLOWGUARD BENDABLE AS MANUFACTURED BY LUBRIZOL.
10. CPVC PIPE SHALL BE CONNECTED WITH FLOWGUARD GOLD YELLOW LOW-VOC SOLVENT CEMENT AS MANUFACTURED BY IPS WELD-ON OR OATEY.
11. ALL CPVC PIPE SHALL BE INSULATED TO PREVENT EXPOSURE TO GREASE.
12. ALL SUSPENDED PIPE SHALL BE SUPPORTED AS FOLLOWS:

MATERIAL	MAX. HORIZ. SPACING	MAX. VERT. SPACING
COPPER PIPE	12 FT.	10 FT.
COPPER TUBING ≤1¼"	6 FT.	10 FT.
COPPER TUBING >1½"	10 FT.	10 FT.
CPVC ≤1"	3 FT.	10 FT.
CPVC ≥1¼"	4 FT.	10 FT.

13. A REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER (RPZ) SHALL BE INSTALLED AT THE INLET TO THE WATER FILTRATION SYSTEM. ALL PIPING DOWNSTREAM OF THE RPZ SHALL BE COPPER OR CROSS-LINKED POLYETHYLENE (PEX).
14. ALL DEVICES, APPLIANCES, AND APPARATUS INTENDED TO SERVE SOME SPECIAL FUNCTION SHALL BE PROVIDED WITH PROTECTION AGAINST BACKFLOW AND CONTAMINATION OF THE WATER SUPPLY SYSTEM. ALL BACKFLOW PREVENTION DEVICES SHALL BE ASSE LISTED AND APPROVED FOR THE DEVICE OR APPLIANCE THEY SERVE.
15. ALL WATER SUPPLY LINES SHALL BE PROVIDED WITH A QUARTER-TURN SHUT-OFF VALVE BEFORE FINAL CONNECTION TO EQUIPMENT.
16. QUARTER-TURN SHUT-OFF VALVES SHALL BE INSTALLED UPSTREAM OF ANY INLINE BACKFLOW PREVENTION DEVICE.
17. ALL VALVES AND BACKFLOW PREVENTION DEVICES SHALL BE INSTALLED WITH FITTINGS THAT FACILITATE REMOVAL IN CASE OF FAILURE.
18. ALL OVERHEAD WATER LINES SHALL BE INSULATED WITH 1" THICK EXTERNAL JACKETED INSULATION AND A MINIMUM INSTALLED R-VALUE OF 3.7.
19. PRIOR TO BUILDING TURNOVER, THE DOMESTIC WATER SUPPLY SYSTEM SHALL BE PURGED OF DELETERIOUS MATERIAL AND DISINFECTED. DISINFECTION SHALL BE DONE IN ACCORDANCE WITH THE LOCAL HEALTH CODE, PLUMBING CODE OR IN ACCORDANCE WITH AWWA C651 OR AWWA C652.

STORM DRAINAGE SYSTEMS:

1. ALL ROOF DRAINS SHALL BE SIZED IN ACCORDANCE WITH LOCAL CODES AND SHALL CONFORM TO ASME A112.21.2M OR A112.3.1.
2. ALL STORM DRAINAGE PIPING SHALL BE ABS, PVC TYPE DWV OR CAST-IRON WHERE REQUIRED BY CODE.
3. ALL SUSPENDED STORM DRAINAGE PIPE SUPPORT REQUIREMENTS SHALL BE THE SAME AS THE SANITARY AND VENT REQUIREMENTS.
4. ALL HORIZONTAL STORM DRAINAGE PIPE PITCH REQUIREMENTS SHALL BE THE SAME AS THE SANITARY AND VENT REQUIREMENTS.
5. ALL HORIZONTAL STORM DRAINAGE PIPE SHALL BE INSULATED WITH 1" THICK EXTERNAL JACKETED INSULATION AND A MINIMUM INSTALLED R-VALUE OF 3.7 TO PROTECT AGAINST CONDENSATION.
6. CLEANOUTS SHALL BE INSTALLED IN ALL HORIZONTAL DRAINAGE PIPE AND SHALL BE LOCATED NOT MORE THAN 100 FT. APART.
7. CLEANOUTS SHALL BE INSTALLED AT ALL CHANGES OF DIRECTION GREATER THAN 45 DEGREES. WHERE MORE THAN ONE CHANGE OF DIRECTION OCCURS IN A SINGLE PIPE RUN, ONLY ONE (1) CLEANOUT SHALL BE REQUIRED FOR EVERY 40 FEET OF DEVELOPED LENGTH.
8. CLEANOUTS SHALL BE INSTALLED ON PIPES PRIOR TO ANY SLAB PENETRATION.
9. WHERE PIPING IS LOCATED WITHIN WALL CAVITIES, ACCESS TO THE CLEANOUTS SHALL BE PROVIDED.
10. ROOF DRAINS AND OVERFLOW ROOF DRAINS SHALL BE PIPED INDEPENDENTLY. OVERFLOW ROOF DRAINS SHALL NOT BE CONNECTED TO THE PRIMARY ROOF DRAINAGE SYSTEM.

Grease Interceptor Sizing (MPC)

DFU	INTERCEPTOR VOLUME (GAL)
8	500
21	750
35	1000
90	1250
172	1500
216	2000
REQUIRED SIZE	1250
SIZE INSTALLED	1500

LEGEND

SYMBOL	DESCRIPTION
	COLD WATER PIPING
	TEMPERED WATER PIPING (110°F)
	HOT WATER PIPING (140°F)
	RECIRCULATED HOT WATER PIPING
	OVERHEAD LINES (BY P.C.)
SAN	UNDERGROUND SANITARY PIPING
GW	UNDERGROUND GREASE WASTE PIPING
	VENT PIPING
ST	ABOVE GROUND STORM PIPING
ST	UNDERGROUND STORM PIPING
	HOSE BIBB
OR	CHECK VALVE
	BALL VALVE
	THERMOSTATIC MIXING VALVE
	FLOOR DRAIN
	CLEAN-OUT (FLOOR OR YARD)
	FLOOR SINK
	PRESSURE GUAGE
L	LOW PRESSURE SWITCH
H	HIGH PRESSURE SWITCH
S	SOLENOID VALVE
	THREE-WAY VALVE
	PRESSURE REGULATOR
	DUAL CHECK VALVE OR RPZ
	DUAL CHECK VALVE WITH ATMOSPHERIC VENT
	STRAINER
	RELIEF VENT
	FULL-PORT BALL VALVE
	PUMP
	BACK FLOW PREVENTER

ABBREVIATIONS

ACM	AREA CONSTRUCTION MANAGER
AVB	ATMOSPHERIC VACUUM BREAKER
BSI	BEVERAGE SYSTEM INSTALLER
CO	CLEAN-OUT
DC	DOWNSPOUT COVER
DFU	DRAINAGE FIXTURE UNIT(S)
EC	ELECTRICAL CONTRACTOR
FAC	FIRE ALARM CONTRACTOR
FCO	FLOOR CLEAN-OUT
FD	FLOOR DRAIN
FPC	FIRE PROTECTION CONTRACTOR
FS	FLOOR SINK
GC	GENERAL CONTRACTOR
GI	GREASE INTERCEPTOR
GPF	GALLONS PER FLUSH
GPM	GALLONS PER MINUTE
GW	GREASE WASTE
HS	HAND SINK
I.P.S.	IRON PIPE SIZE (ALSO NPS)
KEI	KITCHEN EQUIPMENT INSTALLER
KES	KITCHEN EQUIPMENT SUPPLIER
LAV	LAVATORY
MC	MECHANICAL CONTRACTOR
MHT	MALE HOSE THREADS
MS	MOP SINK
NPS	NATIONAL PIPE THREAD STANDARD
NPT	NATIONAL PIPE THREAD TAPERED
O/O	OWNER/OPERATOR
OH	OVERHEAD
P	PUMP
PC	PLUMBING CONTRACTOR
RC	REFRIGERATION CONTRACTOR
RPZ	REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER
SAN	SANITARY SEWER
ST	STORM SEWER
SVB	ANTI-SIPHON, SPILL RESISTANT VACUUM BREAKER
TAB	TEST AND BALANACE CONTRACTOR
UG	UNDERGROUND
UR	URINAL
V	VENT
WC	WATER CLOSET
WCO	WALL CLEAN-OUT
WSFU	WATER SUPPLY FIXTURE UNIT(S)
YCO	YARD CLEAN-OUT

REV	DATE	DESCRIPTION	BY
.	01/23/20	PERMIT SET	WLW
.	01/13/20	USRD PROGRESS SET REVIEW	WLW

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01/23/20

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DRAWN BY MJW | STD ISSUE DATE 2019_11 | REVIEWED BY WLW | DATE ISSUED 01-23-20 | RD#19175

TITLE
2019 STANDARD BUILDING – BB20
4597F10-WOOD/WOOD

DESCRIPTION
WOOD BEARING WALLS W/FIBER CEMENT SIDING & Ci
WOOD ROOF TRUSS FRAMING
FIBER CEMENT PANEL/BATTEN/ALPOLIC PANEL/BRICK EXT. FINISH

SITE ID 015-0071
SITE ADDRESS 605 SOUTH 7TH STREET, KANSAS CITY, KS

015-0071.00.0
SHEET NO. P4.0
GENERAL NOTES

COORDINATION SCHEDULE

GENERAL REQUIREMENTS	FURNISH	INSTALL	FINAL CONNECTION	NOTES
MECHANICAL PERMIT	MC			1–3
HOT WORK (WELDING) PERMIT (IF APPLICABLE)	KES			1–3
REFRIGERATION PERMIT (IF APPLICABLE)	MC			1–3
PLUMBING PERMIT	PC			1–3
ELECTRICAL PERMIT	EC			1–3
FIRE SPRINKLER PERMIT (IF APPLICABLE)	FPC			1–3
FIRE ALARM PERMIT (IF APPLICABLE)	FAC			1–3
CONTRACTOR COORDINATION REQUIREMENTS				
HEATING & AIR–CONDITIONING				
ROOFTOP UNITS, INTAKE AND RELIEF	MC	MC		1–5, 17, 22
ROOF CURBS	MC	MC		1–3, 20, 22
GAS PIPING AND GAS PIPE KIT	PC	PC	PC	1–3, 14, 22–23
CONTROLS WIRING	MC	EC	EC	1–3, 19, 22, 24
POWER WIRING	EC	EC	EC	1–3, 19, 22, 24
CONDENSATE TRAP	MC	PC		1–3, 22–23
CONDENSATE PIPING (IF APPLICABLE)	PC	PC		1–3, 22–23
DUCT–MOUNTED SMOKE DETECTOR	MC	MC	EC	1–3, 22, 24
GENERAL EXHAUST SYSTEMS				
EXHAUST FANS	MC	MC		1–3, 17, 22
ROOF CURBS	MC	MC		1–3, 22
CONTROLS (WHERE APPLICABLE)	MC	EC	EC	1–3, 22, 24
POWER WIRING	EC	EC	EC	1–3, 22, 24
TEMPERATURE CONTROLS				
THERMOSTATS & SUBBASES	MC	MC	EC	1–3, 22, 24
REMOTE SENSORS (RH AND/OR TEMPERATURE)	MC	MC	EC	1–3, 22, 24
CONTROLS WIRING (WHERE APPLICABLE)	MC	EC	EC	1–3, 22, 24
POWER WIRING	EC	EC	EC	1–3, 22, 24
DUCTWORK AND ACCESSORIES				
GALVANIZED SHEET METAL DUCTWORK	MC	MC		1–3, 22
EXTERNAL INSULATION	MC	MC		1–3, 22
INTERNAL INSULATION (IF APPLICABLE)	MC	MC		1–3, 22
WEATHERPROOFING (IF APPLICABLE)	MC	MC		1–3, 22
SPIN–IN COLLARS	MC	MC		1–3, 22
FLEXIBLE DUCTWORK	MC	MC		1–3, 22
VOLUME/BALANCING DAMPERS	MC	MC		1–3, 22
FIRE DAMPERS (IF APPLICABLE)	MC	MC		1–3, 22
FIRESTOPPING (IF APPLICABLE)	MC	MC		1–3, 22
AIR DEVICES AND ACCESSORIES	MC	MC	MC	1–3, 7, 22, 28
PLUMBING SYSTEMS				
WATER HEATERS	PC	PC	PC	1–3, 11–12, 23
HOT AND COLD WATER PIPE	PC	PC	PC	1–3, 23
VENTS AND INTAKES	PC	PC	PC	1–3, 23
THERMOSTATIC MIXING VALVE	PC	PC	PC	1–3, 23
POWER AND CONTROL WIRING	EC	EC	EC	1–3, 23–24
KITCHEN EXHAUST SYSTEMS				
McDONALD'S BACKSHELF EXHAUST HOODS	KES	KEI		1–3, 6, 22, 27
CANOPY EXHAUST HOODS (IF APPLICABLE)	KES	KEI		1–3, 6, 22, 27
BLACK IRON DUCTWORK	KES	KEI		1–3, 6, 22
STAINLESS STEEL DUCTWORK (IF APPLICABLE)	KES	KEI		1–3, 6, 22
ALUMINUM DUCTWORK (IF APPLICABLE)	KES	KEI		1–3, 6, 22
UL LISTED DUCT WRAP	MC	MC		1–3, 6, 22
FIRE–RATED DUCT ENCLOSURE (IF APPLICABLE)	GC	GC		1–3, 6, 20, 22
EXHAUST FANS	MC	MC		1–3, 6, 17, 22
ROOF CURBS	MC	MC		1–3, 6, 20, 22
CURB EXTENSIONS	MC	MC		1–3, 6, 22
CONTROLS (WHERE APPLICABLE)	EC	EC	EC	1–3, 6, 22, 24
POWER WIRING	EC	EC	EC	1–3, 6, 22, 24
FIRE SUPPRESSION SYSTEM	KES	KES	KES	1–3, 16, 22, 27
KITCHEN EQUIPMENT				
COOLER/FREEZER	KES	GC		1–3, 27
EVAPORATOR COILS	KES	MC		1–3, 27
CONDENSATE PIPING	PC	PC	PC	1–3, 23, 27
REMOTE CONDENSING UNIT (MAC)	KES	MC		1–3, 22, 27
ROOF CURBS	MC	MC		1–3, 22
REFRIGERANT PIPING	KES	MC	MC	1–3, 22, 27
POWER WIRING	EC	EC	EC	1–3, 22, 24, 27
CONTROL WIRING	EC	EC	EC	1–3, 24, 27
PIPE PORTALS	MC	MC		1–3, 22
ICE MACHINES	KES	KEI		1–3, 27
WATER SUPPLY PIPING	KES	KEI	BSI	1–3, 27
REMOTE CONDENSING UNITS	KES	MC		1–3, 22, 27
ROOF CURBS	MC	MC		1–3, 22, 27
REFRIGERANT PIPING	KES	MC	MC	1–3, 22, 27
POWER WIRING	EC	EC	EC	1–3, 22, 24, 27
CONTROL WIRING	KES	EC	EC	1–3, 24, 27
PIPE PORTALS	MC	MC		1–3, 22
GRILLS	KES	KES		1–3, 27
GAS PIPING (IF APPLICABLE)	PC	PC	PC	1–3, 23, 27
POWER WIRING	EC	EC	EC	1–3, 24, 27
CONTROL CABLE (6' CLAMSHELL ONLY)	MC	EC	EC	1–3, 23, 24, 27
FRYERS	KES	KES		1–3, 27
GAS PIPING (IF APPLICABLE)	PC	PC	PC	1–3, 23, 27
POWER WIRING	EC	EC	EC	1–3, 24, 27
3–COMPARTMENT SINK	KES	KES		1–3, 12, 27
FAUCETS AND PRE–RINSE SPRAYER	KES	KES		1–3, 27
WATER SUPPLY PIPING	PC	PC	PC	1–3, 23, 27
SANITARY DRAIN PIPING	PC	PC	PC	1–3, 23, 27
HAND SINKS	PC	PC		1–3, 23, 27
FAUCET	PC	PC		1–3, 23, 27
WATER SUPPLY PIPING	PC	PC	PC	1–3, 23, 27
SANITARY DRAIN PIPING	PC	PC	PC	1–3, 23, 27
VEGETABLE SINK	KES	KES		1–3, 23, 27
FAUCET	KES	KES		1–3, 23, 27
WATER SUPPLY PIPING	PC	PC	PC	1–3, 23, 27
SANITARY DRAIN PIPING	PC	PC	PC	1–3, 23, 27
WASHING MACHINE	KES	KES		1–3, 23, 27
WATER SUPPLY PIPING	PC	PC	PC	1–3, 23, 27
SANITARY DRAIN PIPING	PC	PC	PC	1–3, 23, 27
WARE WASHER	KES	KES		1–3, 23, 27
WATER SUPPLY PIPING	PC	PC	PC	1–3, 23, 27
SANITARY DRAIN PIPING	PC	PC	PC	1–3, 23, 27
MISCELLANEOUS ITEMS				
FIRE SPINKLER SYSTEMS	FPC	FPC	FPC	1–3, 15, 25
HVAC EQUIPMENT START–UP	MC			1–3, 22
TEST, ADJUST AND BALANCE HVAC SYSTEMS	TAB			1–3, 22
DOOR GRILLES (IF APPLICABLE)	MC	GC		1–3, 20, 22
ROOF/WALL OPENINGS	GC			1–3, 20–24
APPLIANCE BACKFLOW PREVENTION	KES/BSI	PC	PC	1–3, 23, 27
CO2 DETECTION SYSTEM	MC	EC	EC	1–3, 22, 27

NOTES:

1. THIS SCHEDULE IS INTENDED AS A GUIDE FOR THE WORK TO BE PERFORMED. ALL WORK SHALL BE COORDINATED BETWEEN THE McDONALD'S AREA CONSTRUCTION MANAGER AND ALL GC AND O/O SUBCONTRACTORS.
2. ONE (1) COPY OF THE DECOR PACKAGE DRAWINGS SHALL BE SUPPLIED TO THE GENERAL CONTRACTOR AND EACH OF THE SUBCONTRACTORS. IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND THE SUBCONTRACTORS TO INSURE THAT THEY HAVE RECEIVED THE DECOR PACKAGE DRAWINGS.
3. FOR ANY WORK NOT CLARIFIED IN THIS SCHEDULE OR IN THE NOTES AND SPECIFICATIONS, PLEASE CONSULT THE McDONALD'S CONSTRUCTION MANAGER FOR SCOPE OF WORK.
4. ALL ROOFTOP UNIT EQUIPMENT SUPPLIED BY THE MECHANICAL CONTRACTOR AND THE KITCHEN EQUIPMENT SUPPLIER SHALL BE ON SITE AT THE SAME TIME FOR A SINGLE CRANE LIFT. EQUIPMENT SITE ARRIVAL DATE SHALL BE COORDINATED BETWEEN THE CONSTRUCTION MANAGER, MECHANICAL CONTRACTOR AND KITCHEN EQUIPMENT SUPPLIER.
5. ALL ROOFTOP UNITS INSTALLED IN McDONALD'S RESTAURANTS SHALL BE HIGH EFFICIENCY EQUIPMENT. THE INSTALLATION OF STANDARD EFFICIENCY ROOFTOP UNITS IS PROHIBITED.
6. ALL KITCHEN EQUIPMENT REQUIRING EXHAUST SHALL BE INSTALLED IN ACCORDANCE WITH THESE PLANS. ANY VARIATION FROM THESE PLANS SHALL BE REPORTED TO THE CONSTRUCTION MANAGER AND THE ENGINEER–OF–RECORD.
7. WHERE GYPSUM BOARD CEILINGS ARE INSTALLED, THE MECHANICAL CONTRACTOR SHALL SUPPLY DRYWALL MOUNTING FRAMES FOR LAY–IN TYPE DIFFUSERS.
8. ALL WORK SHOWN ON P1.6 DRAWING(S) SHALL BE COMPLETED BY THE BEVERAGE SYSTEM INSTALLER (OR K.E.S.) UNLESS OTHERWISE NOTED IN THE PLUMBING DRAWINGS.
9. ALL WORK ON P1.0 & P1.2 DRAWING(S) SHALL BE BY THE PLUMBING CONTRACTOR.
10. THE BEVERAGE SYSTEM INSTALLER FURNISHES, RUNS AND CONNECTS ALL FLEXIBLE WATER AND SYRUP LINES FOR ALL AFFECTED EQUIPMENT INCLUDING THE FOLLOWING:
    A. HOT CHOCOLATE
    B. COFFEE BREWER
    C. ICE MACHINE
    D. O.J.
    E. SODA TOWERS
11. ALL WATER HEATERS INSTALLED IN McDONALD'S RESTAURANTS SHALL BE HIGH EFFICIENCY SEALED–COMBUSTION WATER HEATERS. THE INSTALLATION OF STANDARD EFFICIENCY GRAVITY–VENTED WATER HEATERS IS PROHIBITED.
12. THE CONSTRUCTION MANAGER, PLUMBING CONTRACTOR AND KITCHEN EQUIPMENT SUPPLIER SHALL COORDINATE WHICH SOILED DISHWASHER (3–COMPARTMENT SINK) IS BEING INSTALLED IN THE RESTAURANT.
13. ALL GAS PIPING FOR COOKING EQUIPMENT SHALL TERMINATE IN THE CEILING PRIOR TO THE INSTALLATION OF THE PIPING CHASE. UPON INSTALLATION OF THE CHASE, THE GAS PIPING SHALL THEN BE CONTINUED IN THE CHASE FOR FINAL CONNECTION TO THE APPLIANCE.
14. ALL GAS PIPING FOR ROOFTOP EQUIPMENT SHALL BE BROUGHT UP THROUGH THE BASE OF THE UNIT TO MINIMIZE ROOF PENETRATIONS. WHERE THIS IS NOT POSSIBLE, THE PLUMBING CONTRACTOR SHALL PROVIDE THE NECESSARY PIPE PORTALS ON ROOF.
15. ALL FIRE PROTECTION DRAWINGS CONTAINED WITHIN THIS SET ARE STRICTLY FOR REFERENCE ONLY. FIRE SPRINKLER DRAWINGS SHALL BE DESIGNED AND PERMITTED BY A FIRE PROTECTION CONTRACTOR.
16. ALL R–102 WET CHEMICAL FIRE SUPPRESSION SYSTEMS FOR TYPE I HOODS SHALL BE DESIGNED AND INSTALLED BY A LOCAL ANSUL AGENT. THE USE OF DRY CHEMICAL SYSTEMS IS PROHIBITED. THE LOCAL ANSUL AGENT CONTRACT IS HANDLED THROUGH THE KITCHEN EQUIPMENT SUPPLIER.
17. ALL ROOFTOP UNITS AND EXHAUST FANS ARE SUPPLIED WITH A FACTORY–INSTALLED DISCONNECT SWITCH.
18. ELECTRICAL CONTRACTOR SHALL PROVIDE DISCONNECT SWITCHES FOR REMOTE CONDENSING UNITS.
19. ALL ELECTRICAL CONDUITS FOR ROOFTOP EQUIPMENT SHALL BE BROUGHT UP THROUGH THE BASE OF THE UNIT TO MINIMIZE ROOF PENETRATIONS. WHERE THIS IS NOT POSSIBLE, THE ELECTRICAL CONTRACTOR SHALL PROVIDE THE NECESSARY PIPE PORTALS ON ROOF.
20. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
21. SEE STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
22. SEE MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.
23. SEE PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.
24. SEE ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
25. SEE FIRE PROTECTION DRAWINGS FOR ADDITIONAL INFORMATION.
26. SEE FIRE ALARM DRAWINGS FOR ADDITIONAL INFORMATION.
27. SEE KITCHEN DRAWINGS FOR ADDITIONAL INFORMATION.
28. SEE DECOR DRAWINGS FOR ADDITIONAL INFORMATION.

EXPANSION TANK SCHEDULE

TAG	MANUFACTURER	MODEL	TOTAL VOL.	CONNECTION	ACCESSORIES
ET–1	AMTROL	ST–12	4.4 GAL.	¾"	–

NOTES:
1. SEE DETAIL 6 ON DRAWING P3.0

PUMP SCHEDULE

TAG	MANUFACTURER	MODEL	HP	V	Ø	Hz	ACCESSORIES
P–1	GRUNDFOS	UP 15–18 B7	1/25	120	1	60	1–3

ACCESSORIES:
1. TIMECLOCK
2. AQUASTAT
3. CHECK VALVE

NOTES:
1. SEE ELECTRICAL DRAWINGS FOR TIMECLOCK WIRING
2. DESIGN: 2 GPM, 7 FT. HEAD
3. SEE DETAIL 6 ON DRAWING P3.0

BACKFLOW PREVENTER SCHEDULE

TYPE	MFR.	MODEL	ASSE LISTING	SERVES	LOCATION
AG	FURN. WITH CHEM. SYS.		1055B	CHEMICAL SYSTEM	DIN. RM.–MOP SINK
AG	FURN. WITH CHEM. SYS.		1055B	CHEMICAL SYSTEM	KITCHEN–MOP SINK
AVB	FURN. WITH CHEM. SYS.		1001	CHEMICAL SYSTEM	SUPP. RM.–3–COMP
AVB	FURN. WITH FAUCET		–	MOP SINK FAUCET	SEE DRAWINGS
VB	FURN. WITH HB		1012	WALL HYDRANT	SEE DRAWINGS
DCV	FURN. WITH HB		1052	YARD HYDRANT	TRASH CORRAL
DCV	FURN. WITH HB		1052	ROOF HYDRANT	ROOF
DCV	WATTS	SD–3	1022	SODA TOWERS AND SPEC. COFFEE	
RPZ	WILKINS	375XL–SXL–AG	1013	INCOMING WATER	SUPPORT ROOM
RPZ	WILKINS	375XL–AG	1013	FILTRATION SYSTEM	SUPPORT ROOM
PVB	WATTS	WA800M4QT–100	1020	IRRIGATION SYSTEM	IRRIGATION SYSTEM

WATER HEATER SCHEDULE

TAG	MANUFACTURER	MODEL	SIZE GAL.	HEATING TYPE	HEATING KW	RECOV. 100°F ΔT GPH	ELECTRICAL VOLTS	ELECTRICAL Ø	ELECTRICAL Hz	ELECTRICAL F.L.A.
WH–1	BRADFORD–WHITE A.O. SMITH	M–11–120A–54–3 DRE–120–54	119 119	ELEC	54	223 221	208	3	60	150

ACCESSORIES:
1. NSF INSTALLATION KIT

VALVE SCHEDULE

MANUFACTURER	MODEL	TEMP. SETTING	LISTING	SERVES
WATTS	LFMMV	110°F	ASSE 1017,1069,1070	CHEMICAL SYSTEM MIXING
WATTS ZURN	LFMMV ZW3870XLT	104°F 104°F	ASSE 1017,1069,1070	LAVS & HAND SINKS MIXING
WATTS	LFUSG–B	110°F	ASSE 1016, 1070	VEGETABLE PREP. SINK MIXING
B & G	CB–1/2	–	–	RECIRC. SYSTEM BALANCING VALVE
NIBCO	585–70–HC	–	–	CHEMICAL SYSTEM SHUT–OFF
NIBCO	S–FP–600A–LF	–	–	RESTROOM SHUT–OFF
NIBCO	S–FP–600A–LF	–	–	COMBI OVEN WATER SHUT OFF
WATTS	LFFBV–PEX	–	–	COMBI OVEN RO WATER SHUT OFF

INTERCEPTOR SCHEDULE

TAG	DESCRIPTION	MANUFACTURER	MODEL	ACCESSORIES	NOTES
GI–1	EXTERIOR GREASE INTERCEPTOR	PRECAST CONCRETE OR EQUAL	1500 GALLONS		1–4
		GREEN TURTLE	PROCEPTOR MODEL GMC1500–UPC	4" INLET, 4" OUTLET	1–2,4

NOTES:
1. SEE GREASE INTERCEPTOR NOTES ON DRAWING P4.0
2. GREASE INTERCEPTOR IS SIZED FOR CITY SEWER APPLICATIONS ONLY. DO NOT USE FOR SEPTIC FIELDS.
3. INTERIOR OF PRECAST CONCRETE SHALL BE COATED WITH TWO (2) LAYERS OF NOVOLAC EPOXY
4. SEE SITE PLAN FOR LOCATION

PLUMBING FIXTURE SCHEDULE[1]

TAG	DESCRIPTION	MANUFACTURER	MODEL	WATER USE	ACCESSORIES/COMMENTS	
F–1	FAUCET FOR LAV–1 & LAV–2	TOTO ZURN	TEL101–D10E#CP Z6950–XL–S–10S–LL	1.0 GPM (0.17 GAL/10 SEC CYCLE)	FAUCET OPERATION: SENSOR	
F–2	FAUCET FOR MS–1	ZURN	Z843M4		FAUCET OPERATION: MANUAL SEE DETAIL 2 ON DRAWING P3.0	5' VINYL HOSE WALL HOOK
FCO	6x6 FLOOR CLEAN OUT	ZURN JAY R. SMITH	Z1400–SZ 4040		SEE DRAWINGS FOR PIPE SIZES SEE NOTE 8	
FD–1	6x6 FLOOR DRAIN WITH FUNNEL	ZURN JAY R. SMITH	Z415–SZ–OF 3510–F25		PIPE SIZE: 3" STRAINER SIZE: 6" NICKEL BRONZE	FUNNEL: ZURN Z329 OVAL SEE NOTE 8
FD–2	6x6 FLOOR DRAIN	ZURN JAY R. SMITH	Z415–SZ 2005		PIPE SIZE: 3" STRAINER SIZE: 6" NICKEL BRONZE	FUNNEL: NONE SEE NOTE 8
FD–3	6x6 FLOOR DRAIN WITH FUNNEL	ZURN JAY R. SMITH	Z415–SZ–OF 3510–F25		PIPE SIZE: 4" STRAINER SIZE: 6" NICKEL BRONZE	FUNNEL: ZURN Z329 OVAL SEE NOTE 8
FD–4	6x6 FLOOR DRAIN	ZURN JAY R. SMITH	Z415–SZ 2005		PIPE SIZE: 4" STRAINER SIZE: 6" NICKEL BRONZE	FUNNEL: NONE SEE NOTE 8
FS–1	12x12 FLOOR SINK WITH HALF–GRATE	ZURN JAY R. SMITH	ZN1901 3435		PIPE SIZE: 3" DOME STRAINER: ALUMINUM	GRATE: HALF – NICKEL–BRONZE SEE NOTE 8
FS–2	8x8 FLOOR SINK WITH HALF–GRATE	ZURN JAY R. SMITH	ZN1910 3415		PIPE SIZE: 3" DOME STRAINER: ALUMINUM	GRATE: HALF – NICKEL–BRONZE SEE NOTE 8
FS–3	8x8 FLOOR SINK	ZURN JAY R. SMITH	ZN1910 3415		PIPE SIZE: 3" DOME STRAINER: ALUMINUM	GRATE: FULL – NICKEL–BRONZE SEE NOTE 8
HB–1	WALL HYDRANT	WOODFORD ZURN JAY R. SMITH	B65 Z1320–EZ 5519		WALL CLAMP: ADJUSTABLE WALL THICKNESS: M/S = 9½" W/W = 13¾"	SEE NOTE 3
HB–2	YARD HYDRANT	WOODFORD	S4H		SEE NOTES 4 & 9	
HB–3	ROOF HYDRANT	WOODFORD	RHY2–MS		SEE NOTE 5	
HB–4	GARAGE HYDRANT	WOODFORD	C22CP3		SEE NOTES 4 & 9	
HS–1	STAINLESS STEEL HAND SINK	ADVANCE TABCO	7–PS–61		FAUCET: INCLUDED WITH SINK	SEE NOTES 6,10 & 12
HS–2	STAINLESS STEEL HAND SINK – ADA	ADVANCE TABCO	7–PS–26		FAUCET: INCLUDED WITH SINK	SEE NOTES 6,10 & 12
HS–3	STAINLESS STEEL HAND SINK – SUPER SAVER	ADVANCE TABCO	7–PS–22		FAUCET: INCLUDED WITH SINK	SEE NOTES 6,10 & 12
LAV–1	LAVATORY	TOTO	K–2882–0		FAUCET: F–1 TRUEBRO LAVGUARD2 MODEL #102–E–Z CORIAN COUNTER BY G.C.	SEE NOTE 10 SEE DETAIL 3 ON P3.0
LAV–2	WALL–MOUNTED LAVATORY	KOHLER – –	K–2084 – –		FAUCET: F–1 TRUEBRO LAVGUARD2 MODEL #102–E–Z SEE NOTES 6 & 10	SEE DETAIL 3 ON P3.0
MS–1	MOP SINK	FIELD FABRICATED ADVANCE TABCO	RECESSED – FLOOR (24x24x12) 9–OP–24FM		FAUCET: F–2 INCLUDES HOSE, HOSE BRACKET AND TWO (2) 24"Wx48"H WALL GUARDS SEE DETAIL 2 ON P3.0	
TD–1	TRENCH DRAIN	ZURN	Z886–SMG		CLASS A STAINLESS STEEL MESH GRATE. NO–HUB BOTTOM OUTLET. BOTTOM DOME STRAINER. CLOSED END CAP.	
UR–1	ADA WALL–HUNG URINAL	TOTO ZURN –	UT445U#01 Z5755 –	0.125 GPF	FLUSH VALVE: TOTO TEU1LA12#CP ZURN ZTR6203–ULF–LL ¾" I.P.S., 1" TOP SPUD	FLUSH VALVE OPERATION: SENSOR SEE NOTE 2
WB–1	WALL BOX FOR WASHING MACHINE	SIOUX CHIEF	696–2313		HAMMER ARRESTERS INCLUDED WITH BOX	SEE NOTE 7
WB–2	WALL BOX FOR WAREWASHER	SIOUX CHIEF	696–1011		HAMMER ARRESTER INCLUDED WITH BOX MOUNTING HEIGHT: 12" A.F.F.	SEE NOTE 7
WC–1	WATER CLOSET	TOTO ZURN –	CT705EN#01 Z5655 –	1.28 GPF	FLUSH VALVE: TOTO TET1LA32#CP ZURN ZTR6200EV–LL 1" I.P.S., 1½" TOP SPUD	FLUSH VALVE OPERATION: SENSOR SEAT: BEMIS MODEL 2155CT SEE NOTE 11
WC–2	ADA WATER CLOSET	TOTO ZURN –	CT705ELN#01 Z5665 –	1.28 GPF	FLUSH VALVE: TOTO TET1LA32#CP ZURN ZTR6200EV–CC–LL 1" I.P.S., 1½" TOP SPUD	FLUSH VALVE OPERATION: SENSOR SEAT: BEMIS MODEL 2155CT SEE NOTE 11
–	3–COMPARTMENT SINK	–	–		ITEM: 151.00	SEE NOTE 7
VS–1	VEGETABLE PREPARATION SINK	–	–		ITEM: 134.02	SEE NOTE 7
–	WAREWASHER	ECOLAB	SUPRA Q2020–V WITH VAPOR VENT HOOD		ITEM: 152.05 WALL BOX: WB–2	SEE NOTE 7
–	WASHING MACHINE	–	–		ITEM: 223.07 WALL BOX: WB–1	SEE NOTE 7
WCO	6x6 WALL CLEAN OUT	ZURN	Z1441–VP		SEE DRAWINGS FOR PIPE SIZES	SEE NOTE 8
	ROOF DRAINS AND ACCESSORIES					
RD–1 THRU RD–4	COMBINATION MAIN ROOF AND OVERFLOW DRAIN	ZURN	Z165		SEE DRAWINGS FOR PIPE SIZES ROOF OPENING: 30"x14"	SEE NOTE 8
DC–1	OVERFLOW DOWNSPOUT NOZZLE	ZURN JAY R. SMITH	Z199–SS 1770–BS		SEE DRAWINGS FOR PIPE SIZES BIRD SCREEN	SEE NOTE 8

NOTES:
1. SEE McDONALD'S PROJECT MANUAL FOR ADDITIONAL MANUFACTURERS
2. PLUMBING CONTRACTOR SHALL COORDINATE WITH G.C. TO PROVIDE BLOCKING FOR PROPER URINAL SUPPORT
3. PLUMBING CONTRACTOR SHALL COORDINATE WITH G.C. TO PROVIDE INTERIOR BLOCKING ON W/W BUILDING FOR WALL CLAMP
4. YARD HYDRANT IS FOR TRASH CORRAL – SEE SITE PLAN FOR LOCATION
5. PLUMBING CONTRACTOR SHALL ROUTE ⅛" DRAIN PIPE FROM HOSE BIBB TO NEAREST FLOOR DRAIN OR FLOOR SINK
6. PLUMBING CONTRACTOR SHALL COORDINATE WITH G.C. TO PROVIDE BLOCKING FOR PROPER SINK SUPPORT
7. SEE KITCHEN DRAWINGS FOR ADDITIONAL INFORMATION – PLUMBING CONTRACTOR SHALL COORDINATE INSTALLATION WITH K.E.S.
8. PLUMBING CONTRACTOR SHALL SPECIFY CONNECTION MATERIAL/TYPE WHEN ORDERING
9. PLUMBING CONTRACTOR SHALL SPECIFY BURY DEPTH WHEN ORDERING
10. PLUMBING CONTRACTOR SHALL PROVIDE GRID DRAIN, P–TRAP AND VALVE STOPS FOR ALL SINKS & LAVS
11. WATER CLOSETS MUST MEET ALL REQUIREMENTS OF ANSI STANDARD A112.19.2
12. PROVIDE SIDE SPLASH GUARDS FOR SINKS WITHIN 18" OF WORK SURFACE OR COOKING AREA.

REV	DATE	DESCRIPTION	BY
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.	01/23/20	PERMIT SET	WLW
.	01/13/20	USRD PROGRESS SET REVIEW	WLW

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PROFESSIONAL ENGINEER

PREPARED BY: 01/23/20

PREPARED FOR: McDonald's USA, LLC

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DRAWN BY: MJW
STD ISSUE DATE: 2019_11
REVIEWED BY: WLW
DATE ISSUED: 01–23–20
RD#19175

TITLE: 2019 STANDARD BUILDING – BB20 4597F10–WOOD/WOOD

DESCRIPTION: WOOD BEARING WALLS W/FIBER CEMENT SIDING & CI; WOOD ROOF TRUSS FRAMING; FIBER CEMENT PANEL/BATTEN/ALPOLIC PANEL/BRICK EXT. FINISH

SITE ID: 015–0071
SITE ADDRESS: 605 SOUTH 7TH STREET, KANSAS CITY, KS

SHEET NO. 015–0071.00.0
P4.1
SCHEDULES