LOCAL AUTHORITY APPROVAL

CITY OF DETROIT
CITY ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS
COLEMAN A. YOUNG MUNICIPAL CENTER
2 WOODWARD AVENUE
DETROIT, MICHIGAN 48226

Standards and Specifications Reference - *Not To Be Printed*

MDOT 2012 STANDARD SPECIFICATIONS FOR CONSTRUCTION
2011 MICHIGAN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES
2012 AASHTO GUIDE FOR THE DEVELOPMENT OF BICYCLE FACILITIES
2012 AASHTO GUIDE FOR THE PLANNING, DESIGN, AND OPERATION OF PEDESTRIAN FACILITIES
2011 AASHTO GEOMETRIC DESIGN OF HIGHWAYS AND STREETS
CITY OF DETROIT STANDARD SPECIFICATIONS FOR PAVING AND RELATED CONSTRUCTION
CITY OF DETROIT STREET AND ALLEY PLANS

MDOT Standard Plans: (Latest Edition) - *Not To Be Printed*

CITY OF DETROIT
DEPARTMENT OF PUBLIC WORKS

PURITAN GRAND PARKLET STREETSCAPE

CITY OF DETROIT
WAYNE COUNTY, MICHIGAN
PROJECT NUMBER: PW-7017

LOCATION MAP
NORTH

THESE PLANS WERE PREPARED FOR
CITY OF DETROIT, DEPARTMENT OF PUBLIC WORKS BY:
FISHBECK

STATE OF MICHIGAN
KATERINA KOLLAR
ENGINEER
No. 50168
LICENSED PROFESSIONAL ENGINEER

KATERINA KOLLAR, P.E. — 4/14/2020 DATE

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APPROVALS

RECOMMENDED FOR APPROVAL BY:

RICHARD DOHERTY, P.E. – CITY ENGINEER — DATE

CITY OF DETROIT

MILES: N/A

CONTRACT FOR:
THE PURITAN AVENUE GRAND PARKLET STREETSCAPE IS LOCATED AT THE INTERSECTION OF PURITAN AVENUE AND GRAND RIVER AVENUE. THE PROJECT IMPROVEMENTS WILL INCLUDE THE FOLLOWING ELEMENTS: ENLARGED CONCRETE PARK AREA, HARDSCAPE, SIGNAGE, PAVEMENT MARKINGS, SITE FURNISHINGS, ADA ACCESSIBILITY, IMPROVED LIGHTING, AND LANDSCAPING.

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CITY OF DETROIT

City of Detroit
Puritan Grand Parklet Streetscape

REVISIONS

04/14/2020	100% CD
04/01/2020	100% CD
03/04/2020	95% CD
02/03/2020	90% CD
12/27/2019	60% CD
12/06/2019	30% CD

Drawn By	AOF
Designer	AOF
Reviewer	DPE
Manager	KK3

Hard copy is intended to be 24"x36" when plotted. Scale(s) indicated and graphic quality may not be accurate for any other size.

PROJECT NO.
191185

SHEET NO.
G101

PLOT INFO: Z:\2019\191185\CAD\CIS\G101191185 CD.DWG LAYOUT: G001 DATE: 4/13/2020 TIME: 7:10:59 PM USER: AOFRANZON

DEMOLITION & EROSION CONTROL NOTES

1. MAINTAIN AND REPAIR ALL SESC BEST MANAGEMENT PRACTICES DURING CONSTRUCTION UNTIL ALL VEGETATION IS ESTABLISHED, (ALL DISTURBED SOIL SURFACES ARE UNIFORMLY COVERED IN PERMANENT VEGETATION WITH A DENSITY OF 70% OR GREATER, OR AS DEFINED BY PERMIT.)
2. PERFORM ALL EARTH-DISTURBING CONSTRUCTION ACTIVITIES WITHIN THE LIMITS OF DISTURBANCE AS INDICATED ON THE DRAWINGS.
3. REVIEW THE LIMITS OF DISTURBANCE SHOWN ON THE DRAWINGS AND FIELD-STAKING THE LIMIT OF DISTURBANCE LINE PRIOR TO THE START OF CONSTRUCTION AND/OR CONTRACTORS OPERATIONS AT NO ADDITIONAL COST TO OWNER.
4. INSTALL PERIMETER EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO THE START OF ANY LAND CLEARING OR GRADING ACTIVITIES.
5. APPLY TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES AS SHOWN ON THE DRAWINGS AND/OR AS REQUIRED BY SESC PERMIT AND IMPLEMENT ADDITIONAL MEASURES AS DICTATED BY SITE CONDITIONS.
6. ENSURE THAT ANY SEDIMENTATION RESULTING FROM WORK ON THIS SITE IS CONTAINED ON THE SITE AND NOT ALLOWED TO COLLECT ON ANY OFF-SITE AREAS OR IN WATERWAYS.
7. THE EXTENT OF REMOVALS AND DEMOLITION SHALL BE FIELD VERIFIED BY CONSTRUCTION MANAGER PRIOR TO CONSTRUCTION. NOTIFY ENGINEER OF ANY DEVIATIONS FROM INFORMATION SHOWN.

SITE LAYOUT NOTES

1. DIMENSIONS ARE TO BACK OF CURB, OUTSIDE FACE OF BUILDING, AND EDGE OF PAVEMENT UNLESS NOTED OTHERWISE.
2. KEEP THE APPROVED AND/OR MOST CURRENT SET OF PROJECT DRAWINGS ON SITE AT ALL TIMES. CONTRACTOR TO CONFIRM THEY ARE IN POSSESSION OF THE MOST CURRENT DRAWING FILES.

GENERAL NOTES

1. PRIOR TO CONSTRUCTION ALL FENCING, BARRICADES, ENCLOSURES, ETC., MUST BE INSTALLED AND APPROVED BY OWNER OR CONSTRUCTION MANAGER.
2. DISPOSE OF DEMOLITION AND EXCAVATION MATERIALS IN ACCORDANCE WITH CONTRACT DOCUMENTS.
3. UNLESS SPECIFICALLY NOTED FOR REMOVAL ON THE PLANS, ALL SIDEWALKS, DRIVES, CULVERTS, DRAINAGE STRUCTURES, AND ABOVE AS WELL AS BELOW GRADE UTILITIES SHALL BE PROTECTED. ALL SUCH ITEMS DAMAGED OR DESTROYED DURING CONSTRUCTION SHALL BE REMOVED AND REPLACED WITH NEW AT NO ADDITIONAL COST TO THE OWNER.
4. PROTECT EXISTING TREES TO REMAIN WITH TEMPORARY FENCING AT THE DRIP LINE. NO GROUND DISTURBANCE OR STORAGE OF MATERIAL/EQUIPMENT SHALL OCCUR WITHIN THE DRIP LINE LIMITS.
5. ELECTRICAL, TELEPHONE, CABLE TV, WATER, FIBER OPTIC CABLE AND/OR GAS LINES NEEDING TO BE REMOVED OR RELOCATED SHALL BE COORDINATED WITH THE AFFECTED UTILITY COMPANY. ADEQUATE TIME SHALL BE PROVIDED FOR RELOCATION AND CLOSE COORDINATION WITH THE UTILITY COMPANY IS NECESSARY TO PROVIDE A SMOOTH TRANSITION IN UTILITY SERVICE. PAY CLOSE ATTENTION TO EXISTING UTILITIES WITHIN THE CONSTRUCTION LIMITS. GIVE NOTICE TO ALL UTILITY COMPANIES REGARDING DESTRUCTION AND REMOVAL OF ALL SERVICE LINES AND CAP ALL LINES BEFORE PROCEEDING WITH THE WORK.
6. THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THIS DRAWING HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. VERIFY CRITICAL INVERT INFORMATION PRIOR TO BEGINNING CONSTRUCTION.
7. DAMAGE CAUSED TO SURROUNDING AREA PAVEMENT OUTSIDE THE CONSTRUCTION LIMITS SHALL BE SAWCUT AND REPLACED AT NO ADDITIONAL COST TO THE OWNER.
8. SAWCUT CURB AND GUTTER AND SIDEWALKS TO NEAREST JOINT.
9. SECURE AND COMPLY WITH ALL REQUIREMENTS OF ALL PERMITS REQUIRED FOR THIS WORK.
10. COORDINATE ALL CONSTRUCTION ACTIVITIES, INCLUDING HOURS OF OPERATION, WITH THE CITY OF DETROIT.
11. MAINTAIN ACCESS TO ADJACENT PROPERTIES AT ALL TIMES DURING CONSTRUCTION. PROVIDE TEMPORARY ACCESS PATHS, FENCING, SIGNAGE, AND ALL NECESSARY ITEMS TO ENSURE A SAFE AND CLEARLY DEFINED ACCESS PATH.
12. ALL CONSTRUCTION STAGING, MATERIALS STORAGE, CONSTRUCTION WASHING STATIONS, PROJECT MOCK-UP AREAS, AND ALL ASSOCIATED NEEDS ARE THE RESPONSIBILITY OF THE CONTRACTOR. ALL LABOR, MATERIALS AND EQUIPMENT ASSOCIATED WITH THESE ITEMS SHALL BE PROVIDED AS PART OF THE DEMOLITION PAY ITEMS. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM ENGINEER FOR ALL CONSTRUCTION ACCESS POINTS. THE USE OF ADJACENT STREET R.O.W. WILL NOT BE PERMITTED FOR MATERIAL STAGING, STOCK PILING AND CONTRACTOR PARKING WITHOUT PRIOR WRITTEN CONSENT.
13. FOR PROTECTION OF UNDERGROUND UTILITIES AND CONFORMANCE WITH PUBLIC ACT 53, AS AMENDED, THE CONTRACTOR SHALL CALL "MISS DIG" AT 1-800-482-7171 A MINIMUM OF THREE FULL WORKING DAYS (72 HOURS), EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS, PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES INCLUDING EACH EXCAVATION IN AREAS WHERE PUBLIC UTILITIES HAVE NOT BEEN PREVIOUSLY LOCATED. "MISS DIG" MEMBERS WILL THUS BE ROUTINELY NOTIFIED. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING UTILITY OWNERS WHO MAY NOT BE A PART OF THE "MISS DIG" ALERT SYSTEM.
14. EXISTING SURVEY MONUMENTS SHALL BE PROTECTED DURING CONSTRUCTION OPERATIONS. IN THE EVENT EXISTING MONUMENTS ARE DISTURBED DURING CONSTRUCTION, THE MONUMENTS SHALL BE RESTORED TO PRE-CONSTRUCTION CONDITION AND PER CITY OF DETROIT SURVEY BUREAU REQUIREMENTS AT NO COST TO THE OWNER. NOTIFY CITY OF DETROIT SURVEY BUREAU OF ANY DISTURBED OR RESET MONUMENTS.
15. ANY MISCELLANEOUS LITTER AND DEBRIS INCLUDING SUCH ITEMS BUT NOT LIMITED TO: FOUNDATION AND ATTACHMENTS, TREE STUMPS AND ROOT STRUCTURES, PAVEMENT BASE MATERIAL, ABANDONED FENCES, ABANDONED PIPES, CONSTRUCTION DEBRIS, TRASH, ETC. IDENTIFIED ON THE PLANS AND ENCOUNTERED WITHIN THE PROJECT LIMITS SHALL BE REMOVED AND DISPOSED OF LEGALLY OFF-SITE BY THE CONTRACTOR. ALL LABOR, MATERIALS AND EQUIPMENT REQUIRED TO COMPLETE THIS WORK SHALL BE PAID AS PART OF THE PAY ITEM LITTER AND DEBRIS, REM.
16. SAW CUT LINES FOR NEW PAVEMENT SHALL BE CUT STRAIGHT LEAVING A CONSISTENT, SMOOTH EDGE ALONG THE EXISTING PAVEMENT TO REMAIN. NEW PAVEMENT TO DIRECTLY ABUT EXISTING PAVEMENT TO REMAIN. IF NECESSARY OR AS DIRECTED BY THE ENGINEER RE-SAW CUT THE PAVEMENT IF THE EDGE OF THE PAVEMENT IS DAMAGED BY CONSTRUCTION ACTIVITIES. ADDITIONAL SAW CUTS AND THE REQUIRED ADDITIONAL PAVEMENT REPLACEMENT IS INCLUDED AS PART OF THE ORIGINAL PAY ITEM AND SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.

INDEX OF SHEETS:

CIVIL

ELECTRICAL

UTILITY INFORMATION

THE EXISTING UTILITIES SHOWN ON THE FOLLOWING DRAWINGS HAVE BEEN LOCATED FROM UTILITY RECORD DRAWINGS. ACTUAL UTILITY LOCATIONS MAY VARY FROM WHAT IS SHOWN. ALL UTILITIES TO BE FIELD VERIFIED BY UTILITY OWNER PRIOR TO CONSTRUCTION.

WATER AND SEWER

GREAT LAKES WATER AUTHORITY (GLWA)
ANUPAM KUMAR
6425 HUBER ST
DETROIT, MI 48211
Phone: 313.267.3698
ANUPAM.KUMAR@GLWATER.ORG

DETROIT WATER AND SEWAGE DEPARTMENT
JANAY S. HAUGHTON
6425 HUBER ST
DETROIT, MI 48211
PHONE: 313.267.1226
JANAY.HAUGHTON@DETROITMI.GOV

FIRE

CITY OF DETROIT
FIRE CHIEF
ERIC JONES
1301 THIRD STREET
DETROIT, MI 48226
PHONE: 313.596.2900

DTE ELECTRIC

DTE ELECTRIC COMPANY
JACOB M HERMANN
ONE ENERGY PLAZA
DETROIT, MI 48226
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JACOB.HERMANN@DTEENERGY.COM

DTE GAS

DTE GAS COMPANY
CHRISTOPHER C. PORTER
ONE ENERGY PLAZA
DETROIT, MI 48226
PHONE: 313.235.5110

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JENNIFER BIDDLE
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JB6413@ATT.COM

ELECTRIC

PUBLIC LIGHTING AUTHORITY
BENJAMIN BARKER
65 CADILLAC SQUARE SUITE 3100
DETROIT MI 48226
PHONE: 313.324.8291

SYMBOL LEGEND

SURVEY

- BENCH MARK
- SECTION CORNER
- CENTER OF SECTION
- QUARTER CORNER
- CONCRETE MONUMENT
- PROPERTY IRON
- SET PROPERTY IRON
- PROPERTY LINE
- PROPERTY HOOK (COMMON PROPERTY OWNERSHIP)
- TITLE LINE / PROPERTY LINE
- ROW LINE
- SECTION LINE
- EASEMENT CENTERLINE
- EASEMENT LINE
- SURVEY LINE STATIONING
- TRAVERSE POINT
- SOIL BORING LOCATION

TOPOGRAPHY - PLAN

- SHRUBS
- CONIFEROUS TREE
- DECIDUOUS TREE
- HEDGE / EDGE OF WOODS
- WETLANDS
- EXISTING DITCH
- PROPOSED DITCH
- EDGE OF WATER
- 725 CONTOUR MAJOR
- 724 CONTOUR MINOR
- MONITORING WELL
- SOIL BORING
- LIGHT
- GUY ANCHOR
- UTILITY POLE
- SIGN
- FLAG POLE
- MAIL BOX
- PARKING METER
- RAILROAD TRACKS SCALE: 1" = 60' OR LESS
- RAILROAD TRACKS SCALE: 1" = 100' OR MORE
- GUARD RAIL
- EXISTING FENCE
- PROPOSED FENCE
- GRAVEL SURFACE
- PAVED SURFACE
- EXISTING CURB & GUTTER
- PROPOSED CURB & GUTTER
- PROPOSED INVERTED CURB & GUTTER
- PROPOSED TURN DOWN CONCRETE SLAB
- PROPOSED CROSSWALK (PAINTED)
- PROPOSED PAVEMENT MARKING (PAINTED)
- PROPOSED PAVEMENT MARKING DIRECTION ARROWS (PAINTED)
- PROPOSED BARRIER FREE PARKING STALL
- BF PROPOSED BARRIER FREE RAMP
- A.D.A. TACTILE SURFACE
- PROPOSED SILT FENCE
- PROPOSED SIGN
- 725 PROPOSED CONTOUR MAJOR
- 724 PROPOSED CONTOUR MINOR
- GRADING FLOW ARROW

855.00 GR	PROPOSED GRADE ELEVATION
855.00 GP	PROPOSED GUTTER PAN ELEVATION
855.50 TC	PROPOSED TOP OF CURB ELEVATION
855.00 TP	PROPOSED TOP OF PAVEMENT ELEVATION
855.00 TW	PROPOSED TOP OF WALL ELEVATION
855.00 EW	PROPOSED EDGE OF WALK ELEVATION
855.00 FF	PROPOSED FINISHED FLOOR ELEVATION
855.00 EM	PROPOSED EDGE OF METAL ELEVATION
855.00 HP	PROPOSED HIGH POINT ELEVATION
855.00 LP	PROPOSED LOW POINT ELEVATION

EXISTING UTILITIES

- 8" SAN. SANITARY SEWER & MANHOLE
- 12" STM. STORM SEWER & MANHOLE
- CATCH BASIN CURB TYPE
- CATCH BASIN LAWN TYPE
- VALVE
- HYDRANT
- PLUG
- 6" WTR. WATER MAIN
- 4" FM FORCE MAIN
- 2" GAS GAS MAIN
- ELEC. UNDERGROUND ELECTRIC
- OP. FIBER OPTICS
- TEL. UNDERGROUND TELEPHONE
- 2" OIL OIL TRANSMISSION LINE
- 6" STEAM UNDERGROUND STEAM
- 2" SPRK. UNDERGROUND SPRINKLER
- CATV CABLE TELEVISION
- TELEPHONE PEDESTAL
- PIPE-ONLY CULVERT
- FLARED END SECTION CULVERT
- HEADWALL CULVERT

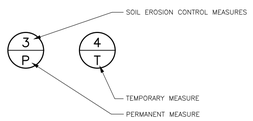
ALL SYMBOLS MAY NOT APPEAR ON DRAWINGS.

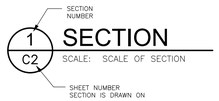
PROPOSED UTILITIES

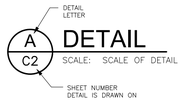
- 8" SAN. SANITARY SEWER & MANHOLE
- WYE & LEAD
- RISER & LEAD
- STANDARD SEWER CLEAN OUT
- 832.56 MAX. ELEVATION OF LOT LEAD AT PROPERTY LINE
- 12" STM. STORM SEWER & MANHOLE
- CATCH BASIN
- ELECTRIC LINE
- 8" WATER WATER MAIN
- VALVE & BOX
- VALVE & CHAMBER
- ELECTRIC HANDHOLD
- PLUG
- STANDARD FIRE HYDRANT ASSEMBLY
- CURB STOP & BOX
- 6" FM FORCE MAIN
- FORCE MAIN AIR RELEASE STRUCTURE
- GAS PIPE
- TELEPHONE LINE
- 12" CSP PIPE-ONLY CULVERT
- 12" CSP FLARED END SECTION CULVERT
- 12" CSP

MISCELLANEOUS

SOIL EROSION CONTROL







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CITY OF DETROIT

City of Detroit

Puritan Grand Parklet Streetscape

REVISIONS

04/14/2020 100% CD
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Drawn By	AOF
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Reviewer	DPE
Manager	KK3

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PROJECT NO.
191185

SHEET NO.
C001

PLOT INFO: Z:\2019\191185\CAD\CD\C001191185 CD.DWG LAYOUT: G001 DATE: 4/13/2020 TIME: 7:11:05 PM USER: AOFRANZON

UTILITY NOTES

1. EXISTING UTILITY LOCATIONS SHOWN ARE APPROXIMATE.
2. VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF EXISTING UTILITIES PRIOR TO EXCAVATION WHERE NECESSARY.
3. PROTECT AND MAINTAIN SERVICE OF OTHER UTILITIES AT CROSSINGS.
4. PROVIDE AND MAINTAIN INLET FILTERS AT ALL CATCH BASIN INLETS, DURING CONSTRUCTION.
5. PROVIDE A MINIMUM OF EIGHTEEN (18) INCHES OF VERTICAL SEPARATION AND TEN (10) FEET OF HORIZONTAL SEPARATION BETWEEN THE WATER MAIN AND ALL SANITARY AND STORM SEWERS.
6. ADJUST ALL CASTINGS TO FINISH GRADES.
7. PIPE LENGTHS ARE TO CENTER OF STRUCTURES UNLESS NOTED OTHERWISE. ALL PIPE LENGTHS ARE FOR THE CONVENIENCE OF THE CONTRACTOR.
8. STORM SEWER WORK INDICATED ON THESE DRAWINGS SHALL REQUIRE A DETROIT WATER AND SEWERAGE DEPARTMENT (DWSD) PERMIT TO BE OBTAINED BY THE CONTRACTOR. NOTIFY AND COORDINATE WITH JUANTIVA SANDERS PERMIT INSPECTOR (313-999-3928) A MINIMUM OF 48 HOURS PRIOR TO THE INITIATION OF STORM SEWER CONSTRUCTION WORK.
9. IN COMPLIANCE WITH PUBLIC ACT 53 OF THE STATE OF MICHIGAN (EFFECTIVE) AUGUST 1, 1974, AS AMENDED, NOTIFY IN ADVANCE OF CONSTRUCTION (72 HOURS/ 3 WORKING DAYS) ALL PUBLIC AND PRIVATE UTILITY PROVIDERS HAVING FACILITIES IN OR NEAR THE IMMEDIATE WORKING AREA. FOR CONVENIENCE THEY ARE IDENTIFIED ON THE ENCLOSED UTILITY PROVIDER LIST. THE LISTING DOES NOT, HOWEVER, RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF VERIFYING THE UTILITY LOCATIONS AND NOTIFYING ALL UTILITY OWNERS AND MISS DIG (1-800-482-7171).
10. ALL WORK TO BE LAID OUT PER STATION (STA) AND OFFSET (OFF) FROM HORIZONTAL CONTROL ALIGNMENT. OFFSETS FOR DRAINAGE STRUCTURES ARE TO BE CENTER OF STRUCTURE.
11. REPLACE SIDEWALKS, CURBS AND PAVEMENT DISTURBED AS PART OF UTILITY WORK OR OTHER CONSTRUCTION ACTIVITIES AND MATCH EXISTING CONDITIONS. PAVEMENT REMOVAL TRENCHING, BACKFILL, PAVEMENT REPLACEMENT AND OTHER ASSOCIATED WORK AND MATERIALS REQUIRED FOR THE ADJUSTMENT, REMOVAL, REPLACEMENT AND INSTALLATION THAT IS NOT SHOWN ON THE DEMOLITION PLANS OR MATERIAL PLANS SHALL BE INCIDENTAL TO THE UTILITY LINE AND/OR STRUCTURE PAY ITEM.
12. UTILITY ADJUSTMENTS REQUIRED TO COMPLETE THE PROJECT ARE TO BE COORDINATED BY THE CONTRACTOR WITH THE INDIVIDUAL UTILITY PROVIDERS.
13. REVIEW, PERMIT AND INSPECTION FEES REQUIRED TO PERFORM THE UTILITY WORK SHALL BE COORDINATED BY THE CONTRACTOR AND SHALL BE INCLUDED IN THE BID.
14. ADJUST ALL SEWER, WATER AND ELECTRICAL STRUCTURES OR INFRASTRUCTURE AS INDICATED ON DRAWINGS. COORDINATE WITH APPROPRIATE CITY DEPARTMENTS AS NECESSARY.
15. COORDINATE ADJUSTMENT OF ALL GAS, STEAM, FIBER AND COMMUNICATION STRUCTURES OR INFRASTRUCTURE WITH APPROPRIATE UTILITY PROVIDER. APPROPRIATE UTILITY PROVIDER TO MAKE ANY ADJUSTMENTS TO GAS, STEAM, FIBER AND COMMUNICATION STRUCTURES AS NECESSARY.
16. RELOCATION OF UTILITY POLES TO BE COORDINATED WITH DETROIT PUBLIC LIGHTING AUTHORITY (PLA) AND DTE ENERGY.
17. ALL MANHOLE AND CATCH BASIN COVERS SHALL BE BOLTED DOWN.

GRADING NOTES

1. FINISH GRADE OF SOIL EDGES ALONG PAVEMENT TO MATCH EDGE OF PAVEMENT.
2. GRADES SHOWN ARE FINAL SURFACE GRADES AFTER COMPLETION OF SURFACE IMPROVEMENTS AND PLACEMENT OF TOPSOIL.
3. GRADE AREAS AT SITE PERIMETER TO MATCH GRADES OF ADJACENT PARCELS.
4. REMOVE EXCESS SOIL FROM SITE AND DISPOSE OF PROPERLY IN ACCORDANCE WITH APPLICABLE REGULATIONS.
5. PROVIDE DRAINAGE AWAY FROM ALL PAVED SURFACES AS SHOWN ON THE DRAWINGS OR AS DIRECTED BY THE ENGINEER. ENSURE ALL AREAS WILL PROPERLY DRAIN TO NEAREST INLET WITHOUT STANDING OR PONDING WATER.
6. NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN THE SURVEY GRADES AND THE ACTUAL SITE ELEVATIONS. ANY AREAS OF POOR DRAINAGE OR INADEQUATE DRAINAGE FROM PROPOSED IMPROVEMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND SHALL BE MODIFIED AS REQUIRED AND APPROVED.
9. MEET EXISTING GRADE WITHIN THE ROADWAY AT THE SAW CUT LINE.
10. PROVIDE MINIMUM CROSS-SLOPE OF 1%, MAXIMUM CROSS-SLOPE OF 2%, AND MAXIMUM LONGITUDINAL SLOPE OF 5% (EXCEPT WHERE NOTED) ON SIDEWALKS (INCLUSIVE OF ALL SPECIFIED TOLERANCES).
11. GRADE ALL PAVEMENT SURFACES UNIFORMLY BETWEEN SPOT ELEVATIONS NOTED ON THE PLANS. (EXCEPT WHERE NOTED OTHERWISE)
12. ALL PERMANENT IMPROVEMENTS SHALL BE LOCATED WITHIN CITY OF DETROIT PROPERTY, GREENWAY EASEMENTS, AND/OR PUBLIC RIGHT-OF-WAY.
13. SPOT ELEVATIONS NOTED FOR ADA SIDEWALK RAMPS ARE REFERENCE POINTS ONLY. THE ADA SIDEWALK RAMPS TO BE FIELD VERIFIED AND SHALL BE IN ACCORDANCE WITH MDOT SIDEWALK RAMP AND DETECTABLE WARNING DETAILS PER STANDARD PLAN R-28 (LATEST EDITION).
14. GRADE LONGITUDINAL GUTTER SLOPES UNIFORMLY BETWEEN SPOT ELEVATIONS AND AS ILLUSTRATED WITH DRAINAGE ARROWS ON THE PLANS. ENSURE PROPER DRAINAGE IS MAINTAINED ACROSS AND AWAY FROM ALL SIDEWALK AND RAMPS TO ENSURE WATER DOES NOT POND AT THE BASE OF THE RAMPS. ANY AREAS OF POOR DRAINAGE OR INADEQUATE DRAINAGE SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND SHALL BE MODIFIED AS REQUIRED AND APPROVED. GRADING MODIFICATIONS SHALL BE PROVIDED AT NO ADDITIONAL COST AND IS INCIDENTAL TO DEMOLITION AND GRADING PAY ITEMS.
15. REFERENCE CURB TRANSITIONS NOTED ON GRADING PLANS, AT SIDEWALK, ADA RAMPS, AND ADJACENT TO DRIVEWAY/ALLEY APPROACHES. CURB TRANSITIONS SHALL BE MADE UNIFORMLY WITHOUT ABRUPT CHANGES OR IRREGULARITIES. ENSURE THAT THE TOP OF CURB ELEVATION IS THE SAME AT INTERSECTIONS WITH DIFFERENT CURB TYPES AND EXISTING CURBS.
16. CONTRACTOR TO VERIFY ALL EXISTING SPOT ELEVATIONS ALONG LIMITS OF EXISTING AND NEW PAVEMENT WHERE THE GRADING PLANS NOTE MEET EXISTING (M.E.). NOTIFY THE ENGINEER OF ANY INCONSISTENCIES, DRAINAGE ISSUES, OR SLOPE DISCREPANCIES.
17. TREE GRATES AND FRAMES SHALL BE SET WITH A UNIFORM SLOPE IN ONE DIRECTION CONSISTENT WITH THE ADJACENT PAVEMENT GRADES. DO NOT WRAP OR UNEVENLY DROP ONE OR MORE CORNERS OF THE TREE GRATES AND FRAMES. ENSURE THE TREE GRATES ARE SET FLUSH AND EVEN WITH THE FRAME AND ADJACENT CONCRETE.
18. TOP OF LIGHT POLE FOUNDATIONS SHALL PER DETAIL SHOWN ON ELECTRICAL SHEETS.

SIGNAGE & STRIPING NOTES

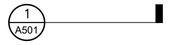
1. ALL SIGNAGE AND STRIPING SHOWN ON THESE PLANS SHALL BE COORDINATED WITH THE CITY OF DETROIT TRAFFIC ENGINEERING DIVISION AND PER THE REQUIREMENTS OF THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MMUTCD) LATEST EDITION EXCEPT AS AMENDED BY SPECIAL PROVISIONS.
2. SIGN PLACEMENT SHALL BE INSTALLED TO PROVIDE A MINIMUM OF 2'-0" OF CLEARANCE FROM THE FACE OF CURB TO THE CLOSEST EDGE OF THE FACE OF THE SIGN OR AS DIRECTED BY THE DETROIT TRAFFIC ENGINEERING DIVISION.
3. PLACEMENT OF REGULATORY AND ADVANCE WARNING SIGNS TO BE COORDINATED WITH CITY OF DETROIT TRAFFIC ENGINEERING DIVISION.
3. LAYOUT OF ALL PAVEMENT MARKINGS AND SIGNAGE SHALL BE STAKED BY THE CONTRACTOR FOR CITY OF DETROIT TRAFFIC ENGINEERING DIVISION APPROVAL IN ADVANCE OF INSTALLATION.
4. EXISTING LIGHT POLES, TRAFFIC POLES, AND FREESTANDING POLES THAT ARE TO REMAIN HAVE EXISTING STREET SIGNS AND TRAFFIC SIGNS THAT SHALL BE PROTECTED AND REMAIN IN PLACE. THE CONTRACTOR SHALL REPLACE ANY SIGNAGE THAT IS TO REMAIN AT NO ADDITIONAL COST IF THE SIGN IS REMOVED OR DAMAGED DURING CONSTRUCTION.
5. ANY SIGNS REQUIRED TO BE REMOVED FOR CONSTRUCTION PURPOSES SHALL BE SALVAGED AND STORED BY THE CONTRACTOR, AND RE-INSTALLED FOLLOWING CONSTRUCTION ACTIVITIES UNLESS NOTED OTHERWISE ON THE PLANS OR AS AMENDED BY SPECIAL PROVISIONS. CONTRACTOR SHALL REPLACE AT NO ADDITIONAL COST ANY SIGN THAT IS DAMAGED BY CONSTRUCTION ACTIVITIES.
6. MODIFICATIONS AND/OR REMOVALS OF EXISTING SIGNS TO BE COORDINATED WITH AND COMPLETED UNDER THE DIRECTION OF THE CITY OF DETROIT TRAFFIC ENGINEERING DIVISION.
7. CROSSWALK STRIPING SHALL ALIGN WITH AND CENTER ON THE SIDEWALK ADA RAMPS UNLESS OTHERWISE SHOWN. FIELD VERIFY THE ALIGNMENT WITH ENGINEER PRIOR TO INSTALLATION.
8. ALL PAVEMENT MARKINGS AND SYMBOLS SHALL BE CENTERED IN EACH LANE UNLESS OTHERWISE SHOWN.
9. ALIGN ALL SIGN FACES PERPENDICULAR TO CENTERLINE OF ROAD AND SHARED USE PATH AS SHOWN ON PLANS

GENERAL ABBREVIATIONS

AFF	ABOVE FINISH FLOOR
AHU	AIR HANDLING UNIT
AL.	ALUMINUM
ALT.	ALTERNATE
BF	BARRIER FREE
BRG.	BEARING
CJ	CONTROL JOINT
CL.	CENTERLINE
CLG.	CEILING
CMU	CONCRETE MASONRY UNIT
CO.	CLEANOUT
CONC.	CONCRETE
CONST.	CONSTRUCTION
CONT.	CONTINUOUS
DIA.	DIAMETER
DN.	DOWN
DS.	DOWNSPOUT
EF	EXHAUST FAN
EL.	ELEVATION
EJ	EXPANSION JOINT
EQ.	EQUAL
EWC	ELECTRIC WATER COOLER
FD	FLOOR DRAIN
FRT	FIRE RETARDANT TREATED
FT.	FOOT/FEET
GA.	GAUGE/GAGE
GALV.	GALVANIZED
GC	GENERAL CONTRACTOR
HB	HOSE BIBB
HP	HIGH POINT
HORIZ.	HORIZONTAL
HVAC	HEATING VENTILATING AIR CONDITIONING
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
IN.	INCH/INCHES
INSUL.	INSULATION
LAV.	LAVATORY
LED	LIGHT EMITTING DIODE
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LP	LOW POINT
MFR.	MANUFACTURER
MAX.	MAXIMUM
MEZZ.	MEZZANINE
MIN.	MINIMUM
MO	MASONRY OPENING
MTD.	MOUNTED
N/A	NOT APPLICABLE
NC	NOISE CRITERIA
NIC	NOT IN CONTRACT
NO.	NUMBER
NRC	NOISE REDUCTION COEFFICIENT
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OH.	OVERHEAD
OPP.	OPPOSITE
ORD	OVERFLOW ROOF DRAIN
PERP.	PERPENDICULAR
PL.	PLATE
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
R	RADIUS
REQD.	REQUIRED
RD	ROOF DRAIN
RO	ROUGH OPENING
SCH.	SCHEDULE
SF	SQUARE FOOT
SIM.	SIMILAR
SP.	SPACE/SPACING
SQ.	SQUARE
SS	STAINLESS STEEL
STD.	STANDARD
TAN.	TANGENT
TYP.	TYPICAL
UL	UNDERWRITERS LABORATORY
UNO	UNLESS NOTED OTHERWISE
VERT.	VERTICAL
VTR	VENT THROUGH ROOF
W/	WITH
WC	WATER CLOSET
WH	WATER HEATER
W/O	WITHOUT
WP.	WEATHERPROOF
WT.	WEIGHT

GRAPHIC SYMBOLS

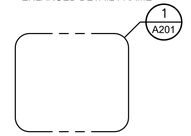
SECTION CUT LINE



ELEVATION, SECTION AND DETAIL DESIGNATION

EXTERIOR ELEVATION TAG

ENLARGED DETAIL FRAME



NORTH ARROW DESIGNATION

PLAN DESIGNATION

INTERIOR ELEVATION TAG

ROOM NAME AND NUMBER — VESTIBULE 101

DOOR NUMBER — 101

ELEVATION TARGET

ELEVATION TAG — FINISH FLOOR EL. 100'-0"

WALL TYPE TAG — F1

SIGNAGE TAG — 1

FINISH TAG — P-1

KEY NOTE TAG — 1

DEMOLITION NOTE TAG — 1

BULLETIN IDENTIFICATION — B1

ADDENDUM IDENTIFICATION — A1

SKETCH IDENTIFICATION — S1

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04/01/2020	100% CD
03/04/2020	95% CD
02/03/2020	90% CD
12/27/2019	60% CD
12/06/2019	30% CD

Drawn By	AOF
Designer	AOF
Reviewer	DPE
Manager	KK3

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PROJECT NO.
191185

SHEET NO.
C002

PLOT INFO: Z:\2019\191185\CAD\CD\C002191185 CD.DWG LAYOUT: G002 DATE: 4/13/2020 TIME: 7:11:21 PM USER: AOFRANZON

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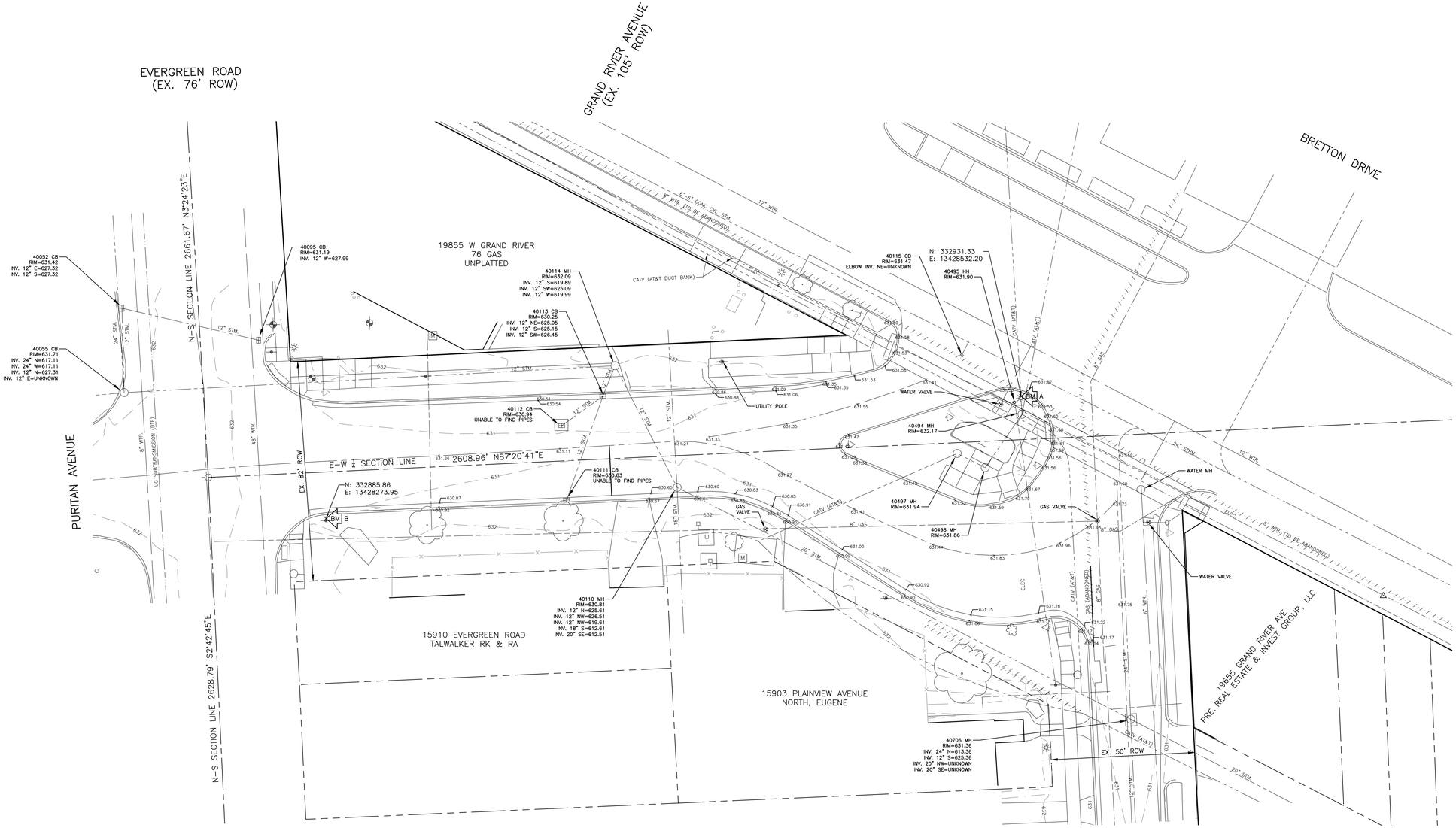

SURVEYED BY:

SURVEY PROVIDED BY: FTCH ON 8/20/19 AND REFLECT CONDITIONS AT THAT TIME

BENCH MARKS

HORIZONTAL DATUM: NAD83
VERTICAL DATUM: NAVD88

BENCH MARK A — ELEVATION: 632.36
CHISELED SQUARE ON NORTHEAST SIDE OF CONCRETE LIGHT POLE BASE IN SOUTHWEST QUADRANT OF GRAND RIVER AVENUE AND PURITAN AVENUE.
N: 332931.33
E: 13428532.20

BENCH MARK B — ELEVATION: 632.86
MAG SPIKE ON NORTH SIDE OF UTILITY POLE AT THE SOUTHEAST QUADRANT OF EVERGREEN RD AND PURITAN AVENUE.
N: 332885.86
E: 13428273.95

NORTH

TOPOGRAPHIC SURVEY PLAN

SCALE: 1" = 20'
0 10 20 40

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12/06/2019	30% CD

Drawn By	AOF
Designer	AOF
Reviewer	DPE
Manager	KK3

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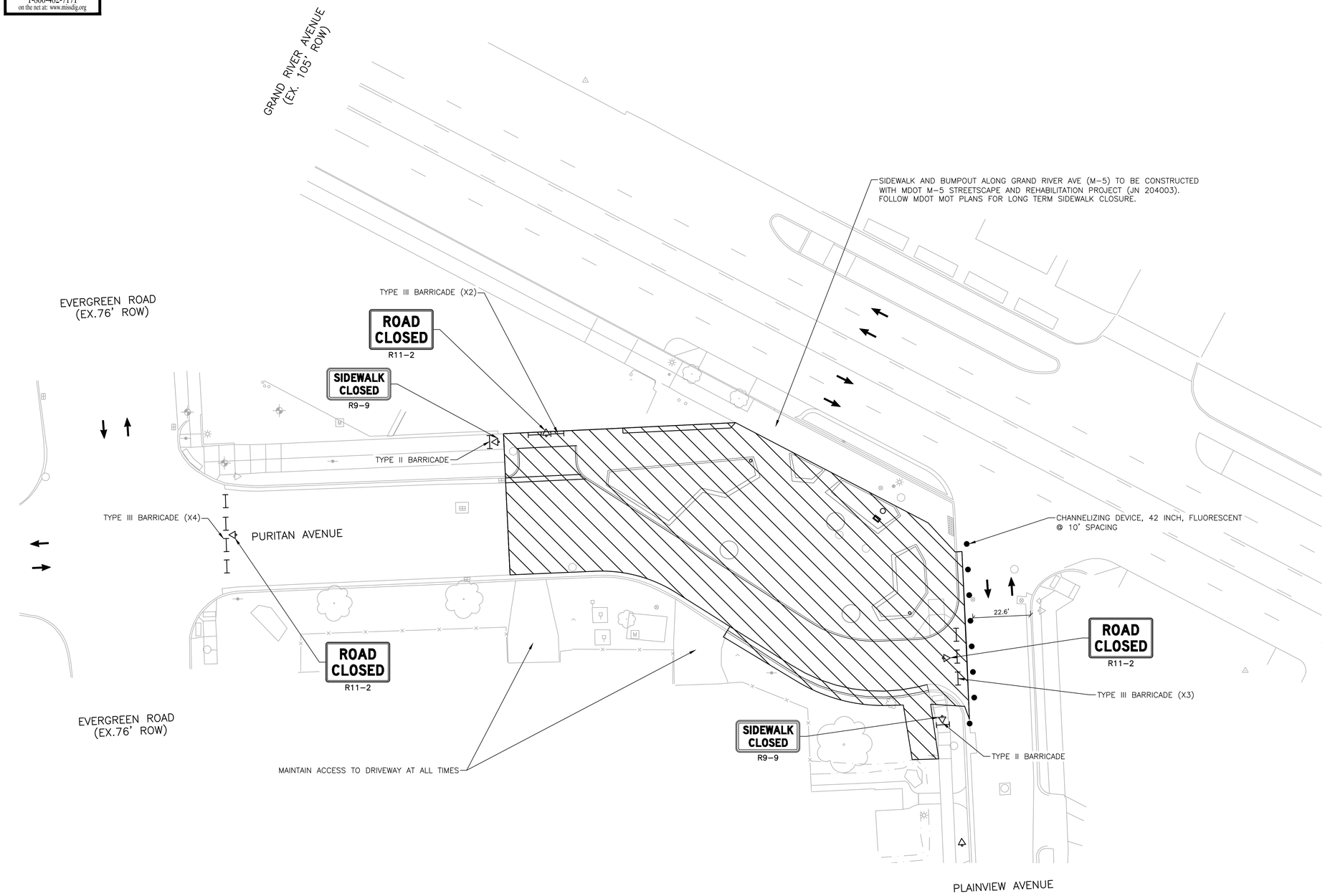
PROJECT NO.
191185

SHEET NO.
C101

PLOT INFO: Z:\2019\191185\CAD\CD\C101191185 CD.DWG LAYOUT: C101 DATE: 4/13/2020 TIME: 7:11:46 PM USER: AOFRANZON



LEGEND

- WORK ZONE
- DIRECTION OF TRAFFIC
- TYPE II OR TYPE III BARRICADE
- TEMP CONSTRUCTION SIGN
- CHANNELIZNG DEVICE

MOT QUANTITIES THIS SHEET

10	Ea	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn
10	Ea	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper
2	Ea	Pedestrian Type II Barricade, Temp
30	Ea	Channelizing Device, 42 inch, Furn
30	Ea	Channelizing Device, 42 inch, Oper
38	Sft	Sign, Type B, Temp Prismatic, Furn
38	Sft	Sign, Type B, Temp Prismatic, Oper
1	LSUM	Minor Traf Devices

NOTE:

1. LOCATIONS OF THE SIGNS TO BE APPROVED BY THE ENGINEER.
2. CONTRACTOR SHALL PROVIDE A MINIMUM OF 3-FOOT SEPARATION BETWEEN WORK ZONE AND TRAVEL LANES TO ALLOW FOR 42" CHANNELIZING DEVICES.
3. MAINTAIN A MINIMUM OF 11-FOOT WIDE TRAVEL LANES DURING WORK ON PLAINVIEW AVE.
4. CONTRACTOR SHALL COORDINATE WITH PROPERTY OWNERS TO MINIMIZE INTERFERENCE TO USERS.
5. ALL SIGNING SHALL COMPLY WITH THE CURRENT EDITION OF "MICHIGAN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".

MAINTENANCE OF TRAFFIC PLAN

NORTH

SCALE: 1" = 20'

0 10 20 40

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Drawn By	AOF
Designer	AOF
Reviewer	DPE
Manager	KK3

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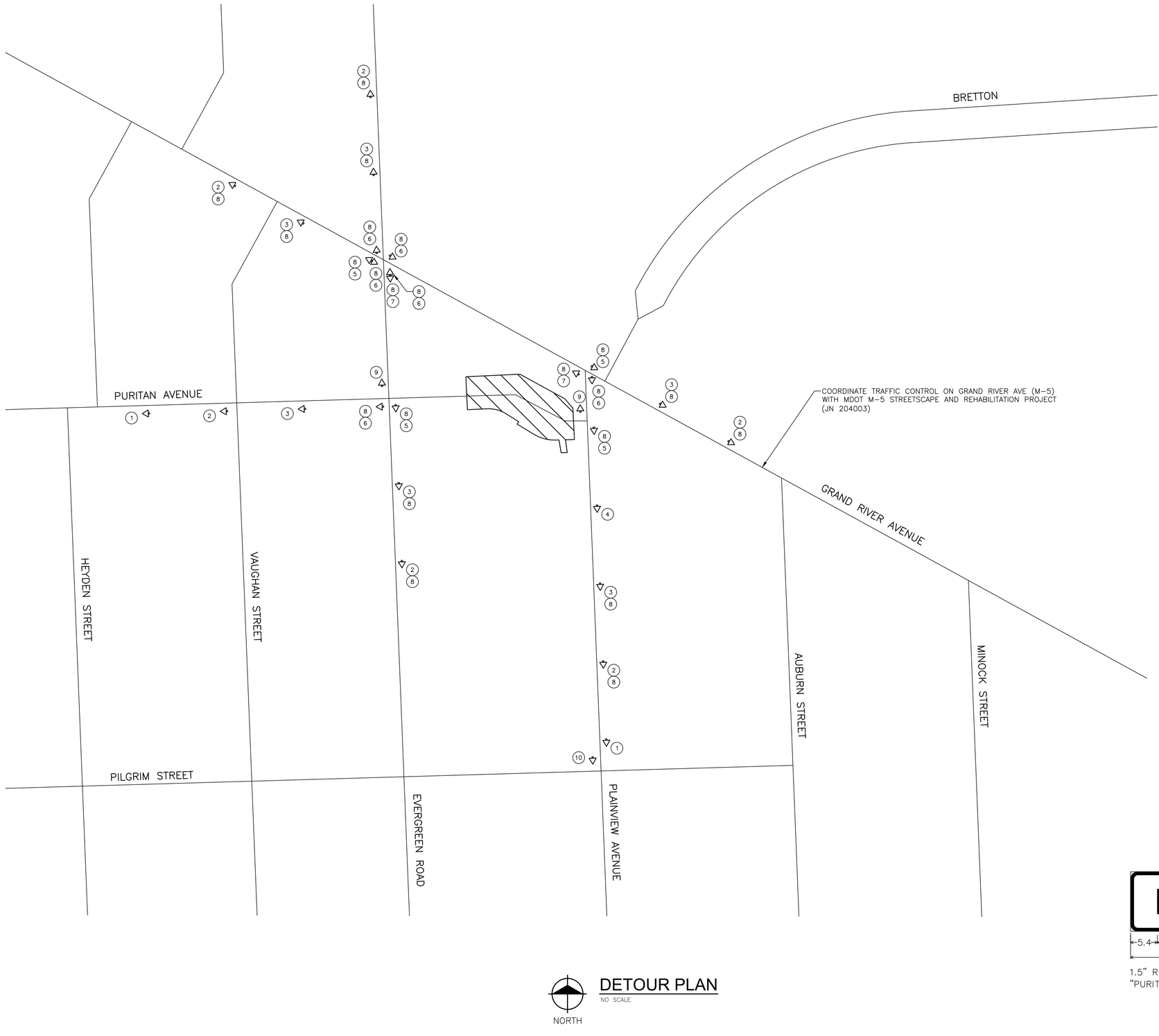
PROJECT NO.
191185

SHEET NO.
C201

PLOT INFO: Z:\2019\191185\CAD\CD\C201191185 CD.DWG LAYOUT: C201 DATE: 4/13/2020 TIME: 7:12:11 PM USER: AOFRANZON



LEGEND

- WORK ZONE
- DIRECTION OF TRAFFIC
- TYPE II OR TYPE III BARRICADE
- TEMP CONSTRUCTION SIGN

MOT QUANTITIES THIS SHEET

309	Sft	Sign, Type B, Temp Prismatic, Furn
309	Sft	Sign, Type B, Temp Prismatic, Oper
88	Sft	Sign, Type B, Temp, Prismatic, Spec, Furn
88	Sft	Sign, Type B, Temp, Prismatic, Spec, Oper

NOTE:

1. LOCATIONS OF THE SIGNS TO BE APPROVED BY THE ENGINEER.
2. CONTRACTOR SHALL PROVIDE A MINIMUM OF 3-FOOT SEPARATION BETWEEN WORK ZONE AND TRAVEL LANES TO ALLOW FOR 42" CHANNELIZING DEVICES.
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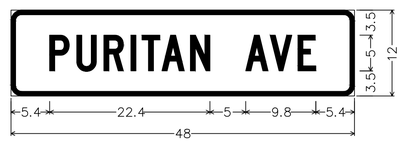
5. ALL SIGNING SHALL COMPLY WITH THE CURRENT EDITION OF "MICHIGAN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".

1. ROAD WORK AHEAD — W20-1
2. ROAD CLOSED AHEAD — W20-3
3. DETOUR AHEAD — W20-2
4. WORK ZONE BEGINS — R5-18c
5. DETOUR — M4-9S
6. DETOUR — M4-9L
7. DETOUR — M4-9R
8. PURITAN AVE — SP #1
9. END DETOUR — M4-8a
10. SIDEWALK CLOSED AHEAD / CROSS HERE — R9-11



1.5" Radius, 0.6" Border, Black on, Orange;
"PURITAN AVE", C;

NORTH

DETOUR PLAN
NO SCALE

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Drawn By	AOF
Designer	AOF
Reviewer	DPE
Manager	KK3

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PROJECT NO.
191185

SHEET NO.
C202

PLOT INFO: Z:\2019\191185\CAD\CD\C202191185 CD.DWG LAYOUT: C202 DATE: 4/13/2020 TIME: 7:12:26 PM USER: AOFRANZON

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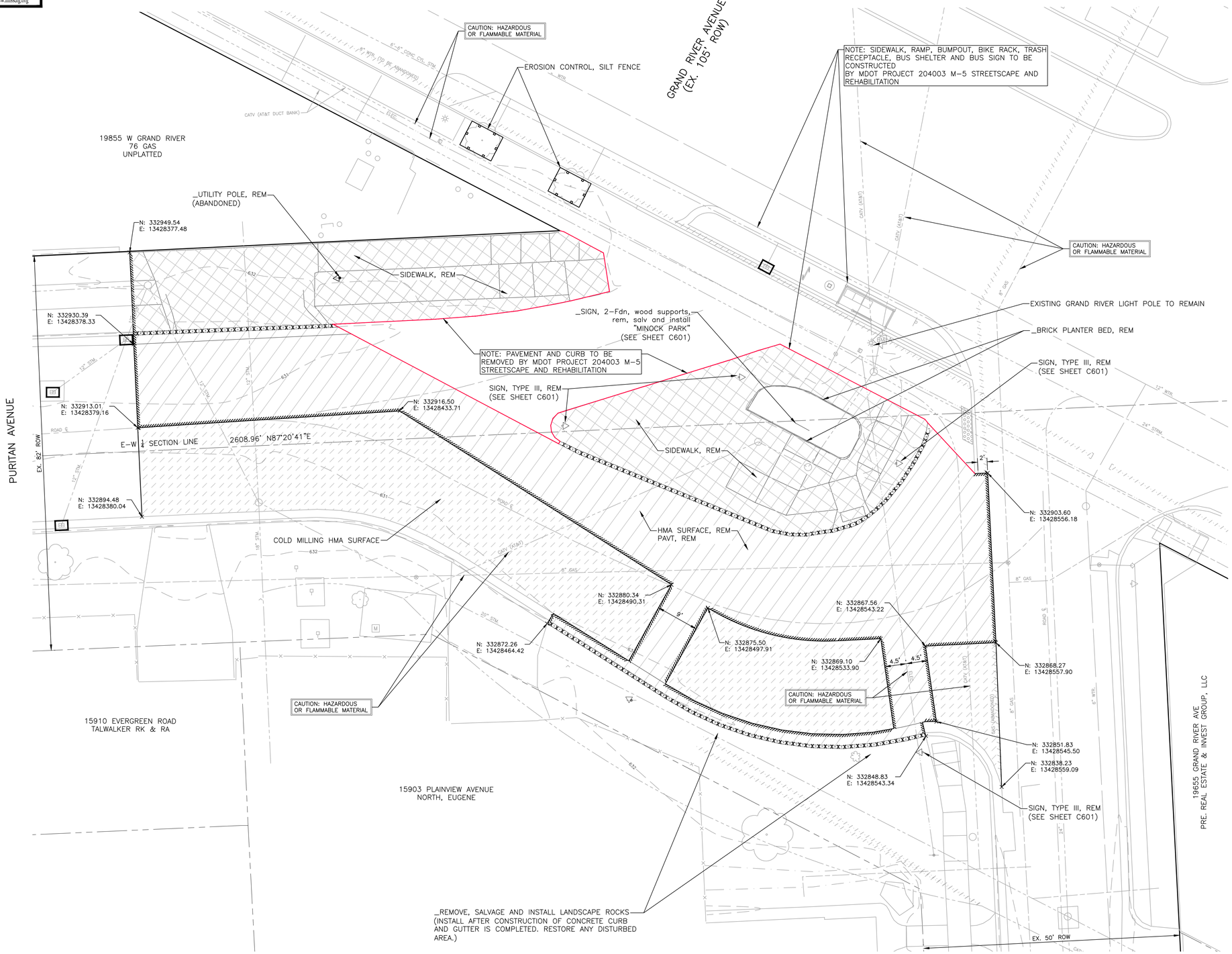

REMOVAL PLAN AND SESC PLAN

SCALE: 1" = 10'

NORTH

REMOVAL LEGEND

- SAWCUT
- CURB REMOVAL
- SIDEWALK, REM
- HMA SURFACE, REM PAVT, REM
- COLD MILLING HMA SURFACE (FULL DEPTH)
- EROSION CONTROL, SILT FENCE
- EROSION CONTROL, INLET PROTECTION, SEDIMENT TRAP
- MDOT PROJECT 204003 M-5 STREETSCAPE AND REHABILITATION REMOVAL LIMITS

REMOVAL QUANTITIES THIS SHEET

427	Syd	HMA Surface, Rem
472	Syd	Pavt, Rem
361	Syd	Sidewalk, Rem
366	Syd	_Cold Milling HMA Surface, Modified
20	Ton	_Conditioning Existing Pavement, Modified
1	Ea	_Utility Pole, Rem
1	Ea	_Brick Planter Bed, Rem
206	Syd	_Streetscape Grading
4	Ea	Erosion Control, Inlet Protection, Sediment Trap
50	Ft	Erosion Control, Silt fence
1	LS	_Remove, Salvage, and Install Landscape Rocks

BENCH MARKS

HORIZONTAL DATUM: NAD83
VERTICAL DATUM: NAVD88

BENCH MARK A — ELEVATION: 632.36
CHISELED SQUARE ON NORTHEAST SIDE OF CONCRETE LIGHT POLE BASE IN SOUTHWEST QUADRANT OF GRAND RIVER AVENUE AND PURITAN AVENUE.
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E: 13428532.20

BENCH MARK B — ELEVATION: 632.86
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Designer	AOF
Reviewer	DPE
Manager	KK3

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PROJECT NO.
191185

SHEET NO.
C301

PLOT INFO: Z:\2019\191185\CAD\CD\C301191185 CD.DWG LAYOUT: C301 DATE: 4/13/2020 TIME: 7:12:52 PM USER: AOFRANZON

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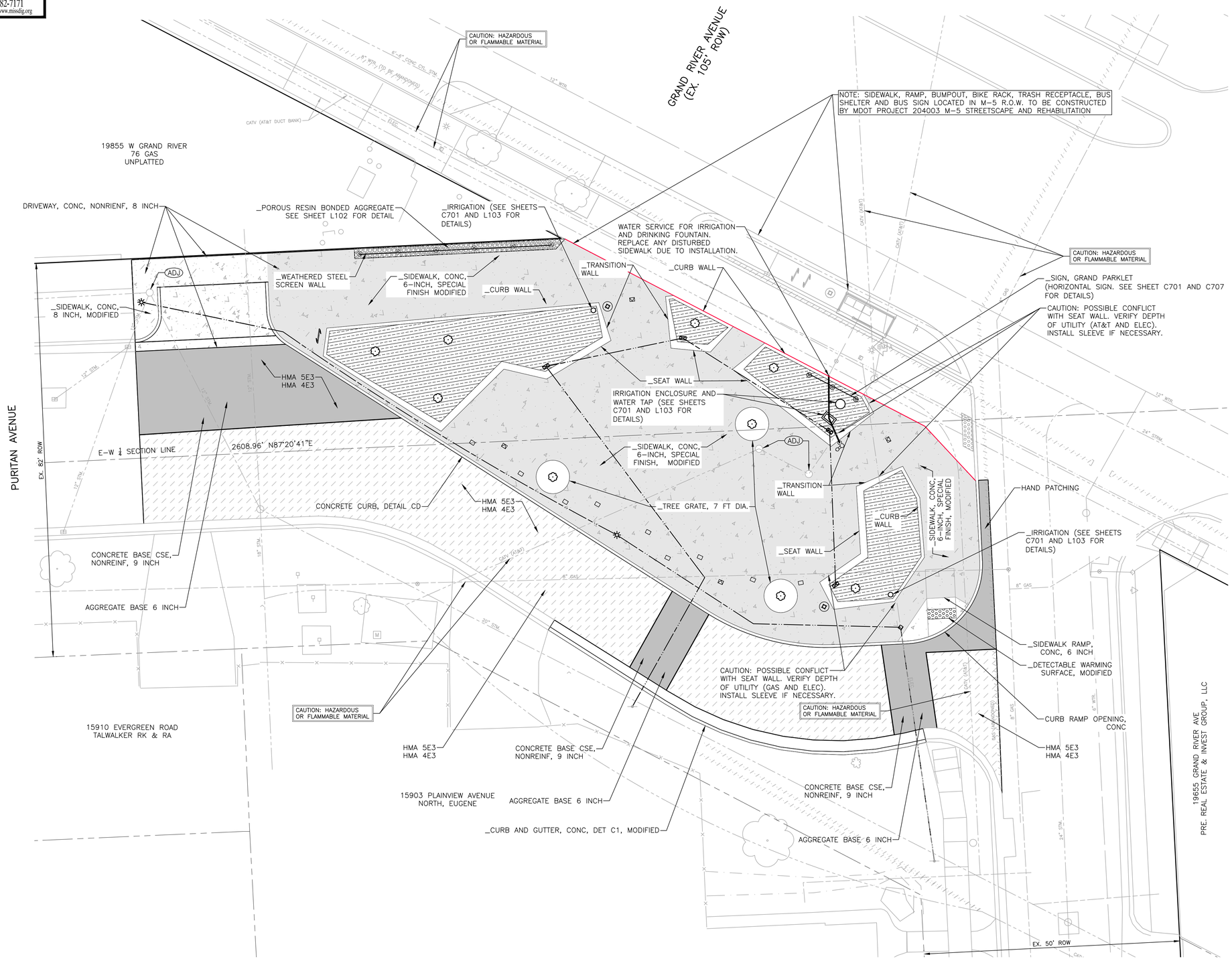

NORTH

CONSTRUCTION PLAN

SCALE: 1" = 10'

0 5 10 20

CONSTRUCTION LEGEND

- HMA 5E3 (1.5 INCH) HMA 4E3 (2 INCH) CONCRETE BASE CSE, NONREINF, 9 INCH AGGREGATE BASE, 6 INCH
- CONCRETE SIDEWALK/DRIVEWAY
- SPECIAL CONCRETE FINISH (SEE SHEET C701 FOR CONCRETE FINISH TYPE)
- HMA 5E3 (1.5 INCH) HMA 4E3 (2 INCH)
- _POROUS RESIN BONDED AGGREGATE
- _DETECTABLE WARNING SURFACE, MODIFIED
- PLANTING BED (SEE LANDSCAPE SHEETS L101–L103)
- ADJ — ADJUST
- _LIGHTPOLE & FIXTURE
- _TRASH RECEPTACLE
- _BIKE RACK
- _BOLLARD, COLLAPSIBLE
- _BOLLARD, FIXED
- _IN-GROUND ELECTRICAL POWER BOX
- _DECIDUOUS SHADE TREE (SEE LANDSCAPE SHEETS L101–L103)
- _DRINKING FOUNTAIN
- _TREE GRATE, 7 FT DIA.
- ELECTRIC TO BE PROVIDED FOR LIGHTING AND _IN-GROUND ELECTRICAL POWER BOXES (SEE ELECTRICAL PLANS)
- MDOT PROJECT 204003 M-5 STREETSCAPE AND REHABILITATION CONSTRUCTION LIMITS

CONSTRUCTION QUANTITIES THIS SHEET

808	Syd	Aggregate Base, 6 inch
216	Ft	Concrete Curb, Detail CD
86	Ft	_Curb and Gutter, Conc, DET C1, Modified
18	Ft	Curb Ramp Opening, Conc
6	Ft	_Detectable Warning Surface, Modified
73	Sft	_Sidewalk Ramp, Conc, 6 inch, Modified
5055	Sft	_Sidewalk, Conc, 6 inch, Special Finish, Modified
48	Sft	_Sidewalk, Conc, 8 inch, Modified
58	Syd	Driveway, Nonreinf, Conc, 8 inch, Modified
135	Syd	Concrete Base Cse, Nonreinf, 9 inch
42	Ton	HMA 5E3
54	Ton	HMA 4E3
1	Ton	Hand Patching
9	Syd	_Porous Resin Bonded Aggregate
312	Ft	_Dr Structure Lead, Cleaning, Modified
4	Ea	_Dr Structure, Cleaning, Modified
1	Ea	_Dr Structure Cover, Adj, Case 1, Modified
2	Ea	_Water Shutoff, Adj, Case 1, Modified
120	LF	_Seat Wall
220	LF	_Transition Wall
100	LF	_Curb Wall
340	LF	_Seat Wall, Grinding Rail

NOTE:

1. ALL CONSTRUCTION SHALL CONFORM TO THE CURRENT STANDARDS AND SPECIFICATIONS OF THE CITY OF DETROIT.
2. REFER TO SHEET C704 FOR ADDITIONAL INFORMATION ON TRASH RECEPTACLES. FIELD VERIFY LOCATION AND CONFIRM ORIENTATION OF CITY LOGO AND DOOR OF TRASH RECEPTACLE WITH ENGINEER PRIOR TO INSTALLATION. PROVIDE ADJUSTMENTS IN LOCATION AND ORIENTATION AT NO ADDITIONAL COST.
3. REFER TO SHEET C703 FOR ADDITIONAL INFORMATION ON BIKE RACKS. SPACE BIKE RACKS AS SHOWN ON DETAIL. FIELD VERIFY LOCATIONS AND CONFIRM ORIENTATION WITH ENGINEER PRIOR TO INSTALLATION. PROVIDE ADJUSTMENTS IN LOCATION AND ORIENTATION AT NO ADDITIONAL COST.
4. REFER TO SHEET C704 FOR IN GROUND ELECTRICAL BOX AND COORDINATE WITH ELECTRICAL PLANS. FIELD VERIFY LOCATIONS AND CONFIRM ORIENTATION WITH ENGINEER PRIOR TO INSTALLATION. PROVIDE ADJUSTMENTS IN LOCATION AND ORIENTATION AT NO ADDITIONAL COST.
5. REFER TO SHEET C705 FOR DRINKING FOUNTAIN AND COORDINATE WITH IRRIGATION DETAIL FOR WATER SOURCE. FIELD VERIFY LOCATION AND CONFIRM ORIENTATION WITH ENGINEER PRIOR TO INSTALLATION. PROVIDE ADJUSTMENTS IN LOCATION AND ORIENTATION AT NO ADDITIONAL COST.
6. REFER TO SHEET C70X FOR PARK SIGN. FIELD VERIFY LOCATIONS AND CONFIRM ORIENTATION WITH ENGINEER PRIOR TO INSTALLATION. PROVIDE ADJUSTMENTS IN LOCATION AND ORIENTATION AT NO ADDITIONAL COST.
7. AUTOCAD FILE WILL BE PROVIDED TO CONTRACTOR FOR STAKING.

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12/06/2019	30% CD

Drawn By	AOF
Designer	AOF
Reviewer	DPE
Manager	KK3

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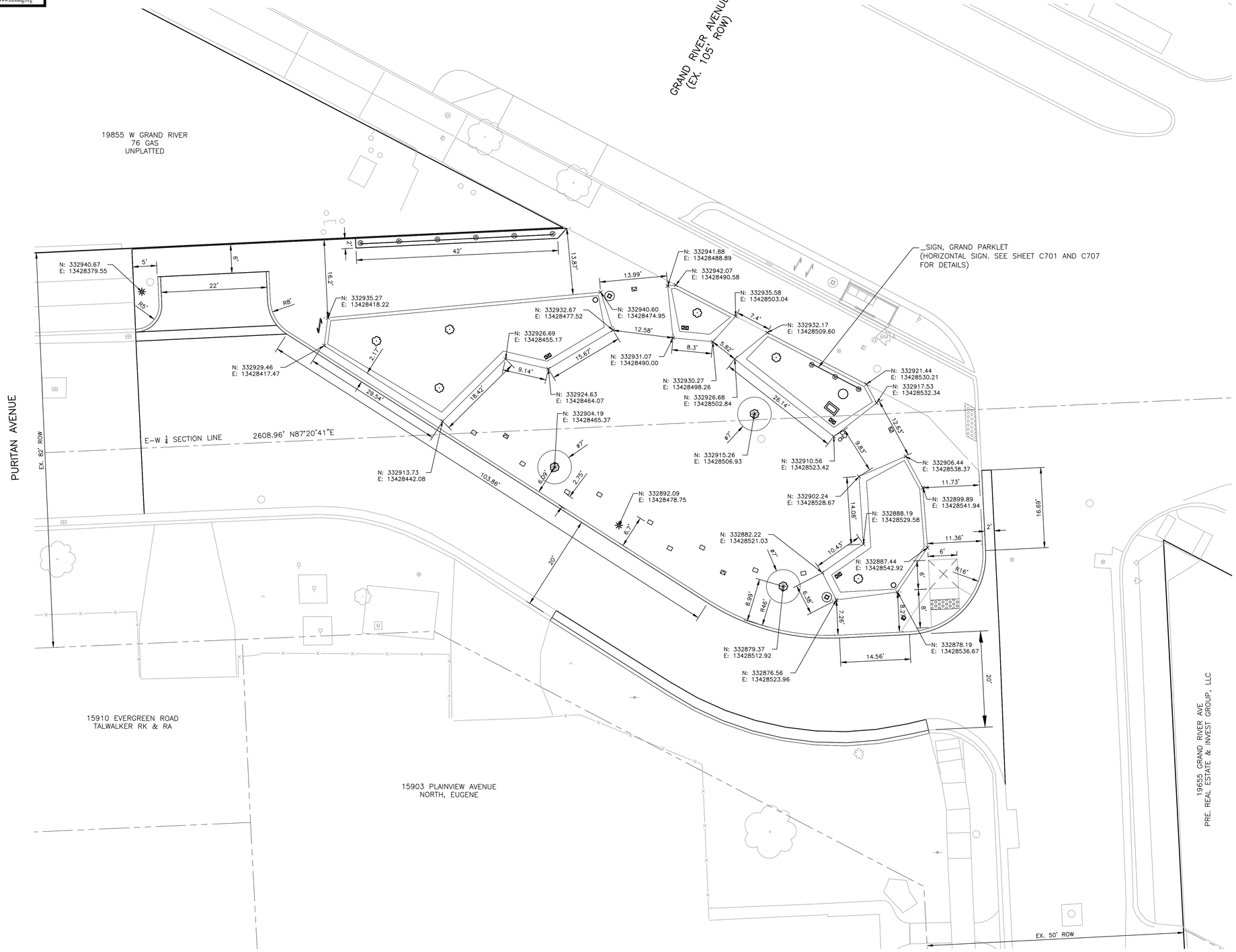
PROJECT NO.
191185

SHEET NO.
C401

PLOT INFO: Z:\2019\191185\CAD\CD\C401191185 CD.DWG LAYOUT: C401 DATE: 4/13/2020 TIME: 7:13:23 PM USER: AOFRANZON



DIMENSIONAL PLAN

SCALE: 1" = 10'

0 5 10 20

NORTH

CONSTRUCTION LEGEND

- LIGHTPOLE & FIXTURE
- _TRASH RECEPTACLE
- _BIKE RACK
- _COLLAPSIBLE BOLLARD
- _FIXED BOLLARD
- _IN-GROUND ELECTRICAL POWER BOX
- _DECIDUOUS SHADE TREE, SEE PLANTING PLAN
- _DRINKING FOUNTAIN
- _TREE GRATE

NOTE:

1. ALL CONSTRUCTION SHALL CONFORM TO THE CURRENT STANDARDS AND SPECIFICATIONS OF THE CITY OF DETROIT.
2. REFER TO SHEET C704 FOR ADDITIONAL INFORMATION ON TRASH RECEPTACLES. FIELD VERIFY LOCATION AND CONFIRM ORIENTATION OF CITY LOGO AND DOOR OF TRASH RECEPTACLE WITH ENGINEER PRIOR TO INSTALLATION. PROVIDE ADJUSTMENTS IN LOCATION AND ORIENTATION AT NO ADDITIONAL COST.
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4. REFER TO SHEET C704 FOR IN GROUND ELECTRICAL BOX AND COORDINATE WITH ELECTRICAL PLANS. FIELD VERIFY LOCATIONS AND CONFIRM ORIENTATION WITH ENGINEER PRIOR TO INSTALLATION. PROVIDE ADJUSTMENTS IN LOCATION AND ORIENTATION AT NO ADDITIONAL COST.
5. REFER TO SHEET C705 FOR DRINKING FOUNTAIN AND COORDINATE WITH IRRIGATION DETAIL FOR WATER SOURCE. FIELD VERIFY LOCATION AND CONFIRM ORIENTATION WITH ENGINEER PRIOR TO INSTALLATION. PROVIDE ADJUSTMENTS IN LOCATION AND ORIENTATION AT NO ADDITIONAL COST.
6. REFER TO SHEET C70X FOR PARK SIGN. FIELD VERIFY LOCATIONS AND CONFIRM ORIENTATION WITH ENGINEER PRIOR TO INSTALLATION. PROVIDE ADJUSTMENTS IN LOCATION AND ORIENTATION AT NO ADDITIONAL COST.
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Reviewer	DPE
Manager	KK3

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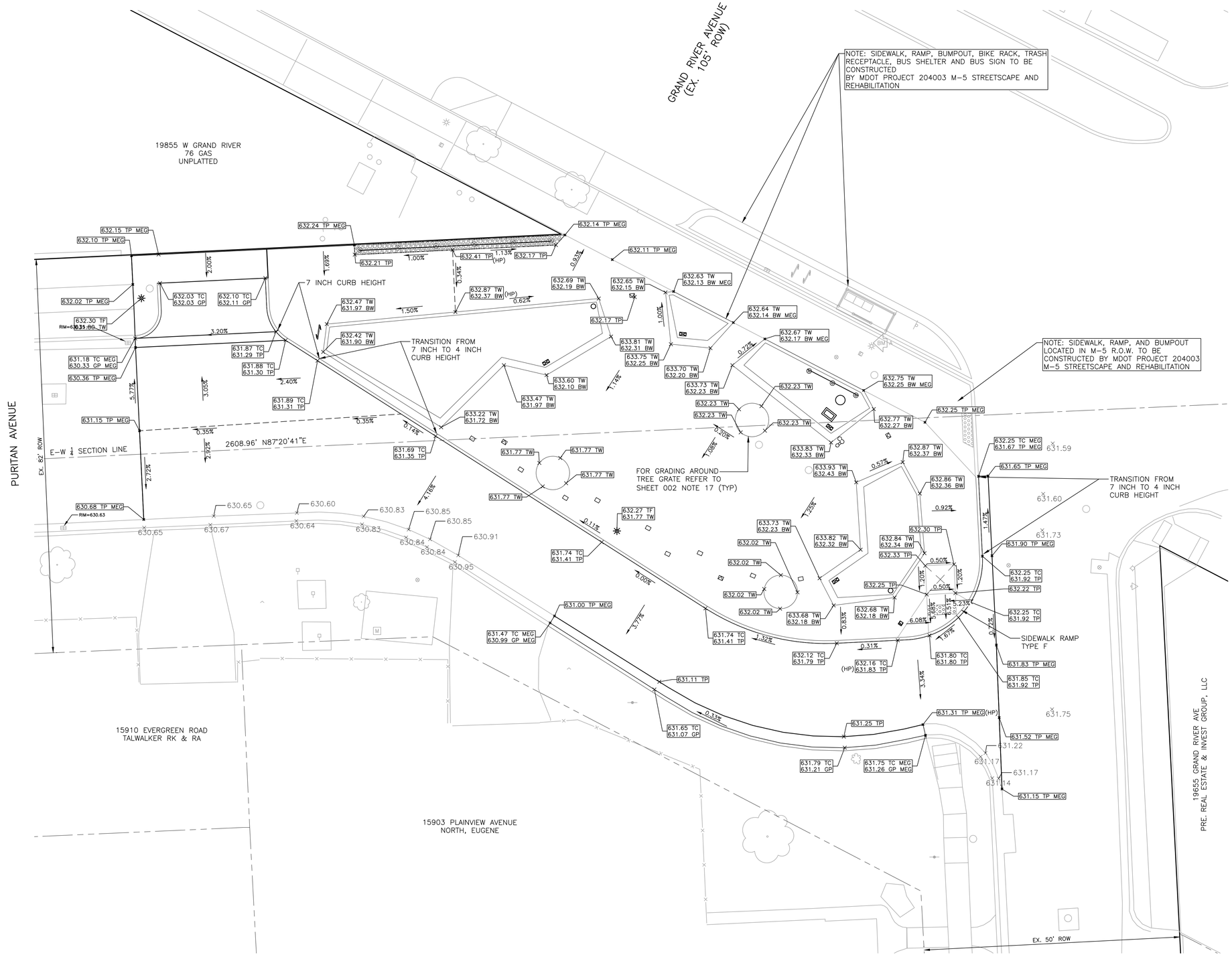
PROJECT NO.
191185

SHEET NO.
C402

PLOT INFO: Z:\2019\191185\CAD\CD\CA402191185 CD.DWG LAYOUT: C402 DATE: 4/13/2020 TIME: 7:13:47 PM USER: AOFRANZON



GRADING PLAN

SCALE: 1" = 10'

0 5 10 20

BENCH MARKS

HORIZONTAL DATUM: NAD83
VERTICAL DATUM: NAVD88

BENCH MARK A — ELEVATION: 632.36
CHISELED SQUARE ON NORTHEAST SIDE OF CONCRETE LIGHT POLE BASE IN SOUTHWEST QUADRANT OF GRAND RIVER AVENUE AND PURITAN AVENUE.
N: 332931.33
E: 13428532.20

BENCH MARK B — ELEVATION: 632.86
MAG SPIKE ON NORTH SIDE OF UTILITY POLE AT THE SOUTHEAST QUADRANT OF EVERGREEN RD AND PURITAN AVENUE.
N: 332885.86
E: 13428273.95

SPOT ELEVATION LEGEND

604.50	SPOT ELEVATION
GP	GUTTER PAN
TC	TOP OF CURB
TP	TOP OF PAVEMENT
GR	GRADE ELEVATION
TW	TOP OF WALL
TF	TOP OF FOUNDATION
BW	BOTTOM OF WALL
EW	EDGE OF WALK
FF	FINISH FLOOR
EM	EDGE OF METAL
LP	LOW POINT
HP	HIGH POINT
MEG	MATCH EXISTING GRADE

NOTE:

1. ALL CONSTRUCTION SHALL CONFORM TO THE CURRENT STANDARDS AND SPECIFICATIONS OF THE CITY OF DETROIT.

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02/03/2020	90% CD
12/27/2019	60% CD
12/06/2019	30% CD

Drawn By	AOF
Designer	AOF
Reviewer	DPE
Manager	KK3

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PROJECT NO.
191185

SHEET NO.
C501

PLOT INFO: Z:\2019\191185\CAD\CD\C501191185 CD.DWG LAYOUT: C501 DATE: 4/13/2020 TIME: 7:45:27 PM USER: AOFRANZON

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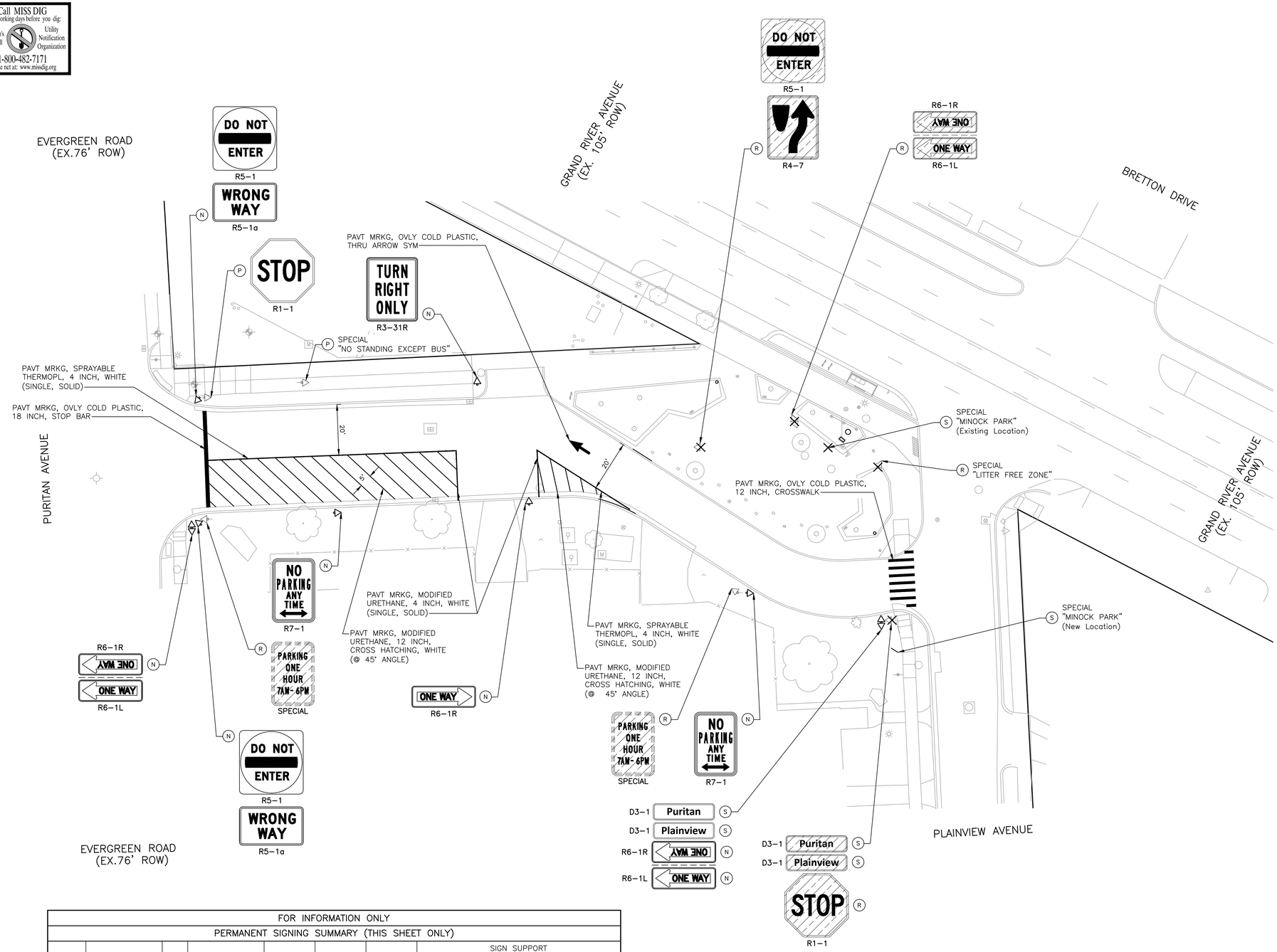

FOR INFORMATION ONLY										
PERMANENT SIGNING SUMMARY (THIS SHEET ONLY)										
SIGN	DESCRIPTION	QTY EACH	SIZE INCH X INCH	UNIT AREA SFT	TOTAL AREA SFT	SIGN TYPE	SIGN SUPPORT			
							TYPE	NO. POSTS	LENGTH PER SIGN FT	TOTAL LENGTH FT
R3-31R	TURN RIGHT ONLY	1	24 X 30	5	5	IIIB	3 LB	1	14	14
R5-1	DO NOT ENTER	2	30 X 30	6.25	12.5	IIIA	3 LB	1	14	28
R5-1a	WRONG WAY	2	30 X 18	3.75	7.5	IIIA	–	–	–	–
R6-1L	ONE WAY (LEFT)	2	36 X 12	3	6	IIIB	3 LB	1	14	28
R6-1R	ONE WAY (RIGHT)	2	36 X 12	3	6	IIIB	–	–	–	–
R6-1R	ONE WAY (RIGHT)	1	36 X 12	3	3	IIIB	3 LB	1	14	14
R7-1	NO PARKING	2	12 X 18	1.5	3	IIIA	3 LB	1	14	28
D3-1	PURITAN	1	SALVAGED				–	–	–	–
D3-1	PLAINVIEW	1					–	–	–	–

NORTH

PAVEMENT MARKING AND SIGNING PLAN

SCALE: 1" = 20'
0 10 20 40

LEGEND

- (N) NEW SIGN AND SUPPORT
- (P) PROTECT SIGN AND SUPPORT
- (S) REMOVE, SALVAGE, & RE-INSTALL WITH NEW SUPPORT
- (R) REMOVE SIGN
- X REMOVE SIGN SUPPORT
- EXISTING SIGN SUPPORT
- PROPOSED SIGN SUPPORT

SIGNING QUANTITIES THIS SHEET

9	Ea	Sign, Type III, Rem
23	Sft	Sign, Type IIIA
20	Sft	Sign, Type IIIB
2	Ea	Sign, Type III, Erect, Salv
112	Ft	Post, Steel, 3lb
1	Ea	_Sign, Grand Parklet
1	Ea	_Sign, 2-Fdn, wood supports, rem, salv and install, "MINOCK PARK"

PAVMT MARKING QUANTITIES THIS SHEET

67	Ft	Pavt Mrkg, Ovly Cold Plastic, 12 inch, Crosswalk
67	Ft	_Recessing for Pavt Mrkg, 12 inch
1	Ea	Pavt Mrkg, Ovly Cold Plastic, Thru Arrow Sym
38	Ft	Pavt Mrkg, Ovly Cold Plastic,18 inch, Stop bar
38	Ft	_Recessing for Pavt Mrkg, 18 inch
142	Ft	Pavt Mrkg, Sprayable Thermopl, 4 inch, White
40	Ft	_Pavt Mrkg, Modified Urethane, 4 inch, White
400	Ft	_Pavt Mrkg, Modified Urethane, 12 inch, Cross Hatching, White

NOTE:

1. ALL SIGNING SHALL COMPLY WITH THE CURRENT EDITION OF "MICHIGAN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".

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03/04/2020 95% CD
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12/27/2019 60% CD
12/06/2019 30% CD

Drawn By	AOF
Designer	AOF
Reviewer	DPE
Manager	KK3

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PROJECT NO.
191185

SHEET NO.
C601

PLOT INFO: Z:\2019\191185\CAD\CD\C601191185 CD.DWG LAYOUT: C601 DATE: 4/13/2020 TIME: 7:14:49 PM USER: AOFRANZON

CONSTRUCTION QUANTITIES THIS SHEET

1	Ea	_Sign, Grand Parklet
2	Ea	_Trash Receptacle
5	Ea	_Bike Rack
3	Ea	_Tree Grate, 7 ft Dia.
9	Ea	_Bollard, Fixed
4	Ea	_Bollard, Collapsible
1	Ea	_Drinking Fountain
1	Ea	_Weathered Steel Screen Wall
1	Lsum	_In-Ground Electrical Power Box
1	Lsum	_Irrigation

1. MEDIUM SANDBLAST FINISH CONCRETE
2. LIGHT BROOM FINISH CONCRETE
3. LIGHT SANDBLAST FINISH CONCRETE
4. _BOLLARD, COLLAPSIBLE (COLLAPSE DIRECTION)
5. _BOLLARD, FIXED
6. LIGHTPOLE & FIXTURE, SEE LIGHTING PLANS
7. _TREE GRATE, 7 FT DIA.
8. _DECIDUOUS SHADE TREE (SEE LANDSCAPE SHEETS L101-L103)
9. PLANTING BED (SEE LANDSCAPE SHEETS SHEET L101-L103)
10. _TRASH RECEPTACLE
11. _CONTROL JOINT
12. _EXPANSION JOINT
13. _DRINKING FOUNTAIN
14. _BIKE RACK
15. _IN-GROUND ELECTRICAL POWER BOX
16. QUICK COUPLER (SEE SHEET L103)
17. _POROUS RESIN BONDED AGGREGATE
18. _SEAT WALL EXPANSION JOINT
19. _IRRIGATION

KEYED NOTES:

- A _SEAT WALL, GRINDING RAIL (SEE SHEET C703)
- B _WEATHERED STEEL SCREEN WALL
- C _SIGN, GRAND PARKLET
- D IRRIGATION STRUCTURE FOR WATER METER

MDOT PROJECT 204003 M-5 STREETSCAPE AND REHABILITATION CONSTRUCTION LIMITS

NOTES:

1. TROWEL FINISH FOR CURBS AND FOOTINGS AROUND SITE FURNISHINGS SUCH AS LIGHT POLES AND BOLLARDS.
2. ORIENT BOLLARDS AS SHOWN ON PLAN.

CONCRETE JOINTING NOTES:

3. NOTIFY ENGINEER OF ANY LAYOUT DISCREPANCIES SHOWN ON THIS PLAN FOR SUPPLEMENTAL DIRECTIONS PRIOR TO PROCEEDING WITH CONSTRUCTION.
4. ALL DIMENSIONS ARE BACK OF CURB, EDGE OF PAVEMENT, OR CENTER OF FIXTURE UNLESS OTHERWISE NOTED.
5. THERE SHALL BE ½" SEALED EXPANSION JOINT AT ALL CURB/SIDEWALK, SEAT WALL/SIDEWALK, FOOTING/SIDEWALK, BUILDING/SIDEWALK, LIGHT POLE OR ANY OTHER FIXED OBJECTS (I.E. EXISTING PAVEMENT, WALLS, POLES, FOUNDATIONS), PLANS DO NOT SHOW EVERY REQUIRED SEALED EXPANSION JOINT.
6. CONTROL JOINTS AND SEALED EXPANSION JOINTS IN CURBS AND WALLS TO ALIGN WITH CONTROL JOINTS AND SEALED EXPANSION JOINTS IN THE ADJACENT SIDEWALK.
7. CONTROL JOINTS AND SEALED EXPANSION JOINTS AT DRIVEWAY AND ALLEY APPROACHES SHALL ALIGN WITH ADJACENT CURB RETURNS.
8. CONTROL JOINTS AND SEALED EXPANSION JOINTS TO ALIGN WITH ADJACENT PAVEMENT, CURBS, WALLS, ETC. UNLESS OTHERWISE NOTED ON THE PLANS. ALIGN JOINTS PERPENDICULAR TO PAVEMENT EDGE AND ALIGN WITH CENTER POINT OF ARCS, AS SHOWN.
9. ARC CONTROL JOINTS ALONG EDGES OF CONCRETE FINISH TYPES TO BE LAID OUT PER PLANS AND CUT TO ENSURE UNIFORM ARC AND JOINT DEPTH. THE ARC JOINTS SHALL BE LOCATED SUCH THAT THE TRIANGULAR SECTIONS OF THE CONCRETE PAVEMENT/SIDEWALK ARE NOT LESS THAN 18" ON ANY GIVEN SIDE.
10. CONTRACTOR SHALL UTILIZE A FORM OR GUIDE TO CUT UNIFORM ARC JOINTS IN THE ALIGNMENTS, RADIUS AND TANGENTS SHOWN ON THE PLAN. ARC JOINTS ARE TO BE SAWCUT TO A TRUE EVEN CONTINUOUS SMOOTH RADIUS WITHOUT IRREGULARITIES.
11. SAWCUT JOINTS CUT WITH IRREGULARITIES AS DETERMINED BY THE ENGINEER SHALL REQUIRE THE REMOVAL AND REPLACEMENT OF THE CONCRETE PAVEMENT AND JOINTS AT NO ADDITIONAL COST.

JOINTING AND SITE FURNISHING PLAN
SCALE: 1"=5'

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Reviewer	DPE
Manager	KK3

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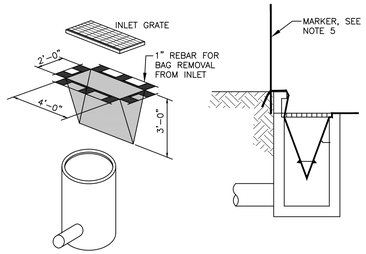
PROJECT NO.
191185

SHEET NO.
C701

PLOT INFO: Z:\2019\191185\CAD\CDC\70191185 CD.DWG LAYOUT: C701 DATE: 4/13/2020 TIME: 7:15:07 PM USER: AOFRANZON

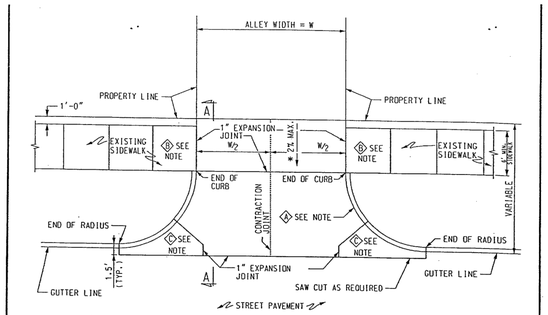


ISOMETRIC VIEW INSTALLATION DETAIL

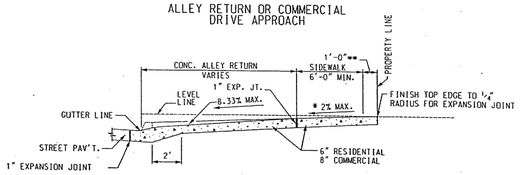
NOTES:

1. PLACE FILTER FABRIC BAG INSIDE THE INLET BENEATH THE GRATE.
2. REPLACE GRATE, WHICH WILL HOLD BAG IN PLACE.
3. ANCHOR FILTER BAG SO IT WILL NOT DROP INTO CATCH BASIN.
4. EXTEND FLAPS OF BAG BEYOND THE BAG. BURY IN SOIL IN EARTH AREAS.
5. IF CATCH BASIN IS IN A LOW DEPRESSION – MARK CB LOCATION WITH A MARKER TO ASSIST LOCATING CATCH BASIN IF FLOODING OCCURS.
6. INSPECT DROP INLET FILTERS ROUTINELY AND AFTER EACH RAIN EVENT.
7. REPLACE DAMAGED FILTER BAGS IMMEDIATELY.
8. CLEAN AND/OR REPLACE FILTER BAG WHEN 1/2 FULL. REPLACE CLOGGED FABRIC IMMEDIATELY.
9. VACUUM OUT CATCH BASIN SUMP IF FILTER BAG TEARS.
10. REMOVE ENTIRE PROTECTIVE MECHANISM WHEN UPGRADIENT AREAS ARE STABILIZED AND STREETS HAVE BEEN SWEPT AND/OR DIRECTECTED BY ENGINEER/OWNER.

EROSION CONTROL, INLET PROPTECTION, SEDIMENT TRAP
NO SCALE



ALLEY RETURN OR COMMERCIAL DRIVE APPROACH



SECTION A-A

REVISIONS				
C				
B	* SIDEWALK CROSS SLOPE	KSM	J.J.	2/7/01
A	METRIC TO ENGLISH UNIT SYSTEM	KSM	M.S.	N.H. 12/02
	DESCRIPTION	Drwn	Chkd	Apprd Date

PREPARED BY BUREAU OF STREETS AND HIGHWAYS

K.S.M. DRAWN BY: J.J. CHECKED BY:

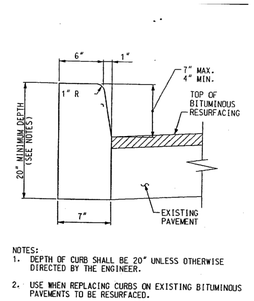
APPROVED Sam Patel ENGINEER OF STREETS

HEAD ENGINEER Jaggy Sood CITY ENGINEER

CITY OF DETROIT
CITY ENGINEERING DIVISION, D.P.W.
STANDARD PLAN FOR
DETAIL OF ALLEY RETURN AND DRIVE APPROACH

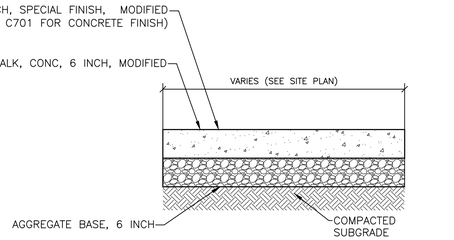
03/07/98 PLAN DATE	DRAWING NO. 7	DETAIL STANDARD NO. C-4384	SHEET 1 OF 2

DRIVEWAY, CONC, NONREINF, 8 INCH
NO SCALE



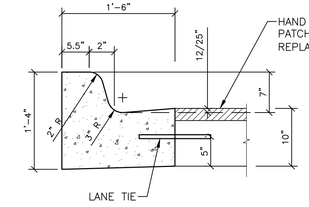
NOTES:
1. DEPTH OF CURB SHALL BE 20" UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
2. USE WHEN REPLACING CURBS ON EXISTING BITUMINOUS PAVEMENTS TO BE RESURFACED.

CONCRETE CURB, DETAIL CD
NO SCALE

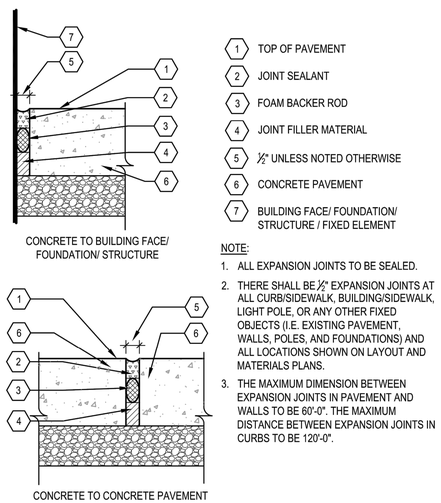


_SIDEWALK, CONC, 6 INCH, MODIFIED
NO SCALE

NOTE: SIDEWALK THICKNESS TO BE 8" AT ALL DRIVE ENTRANCES.



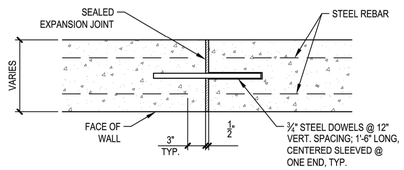
_CURB AND GUTTER, CONC, DET C1, MODIFIED
NO SCALE



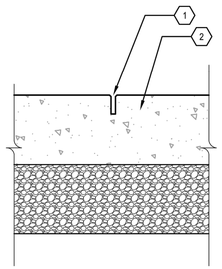
1. TOP OF PAVEMENT
2. JOINT SEALANT
3. FOAM BACKER ROD
4. JOINT FILLER MATERIAL
5. ½" UNLESS NOTED OTHERWISE
6. CONCRETE PAVEMENT
7. BUILDING FACE/ FOUNDATION/ STRUCTURE / FIXED ELEMENT

NOTE:
1. ALL EXPANSION JOINTS TO BE SEALED.
2. THERE SHALL BE ½" EXPANSION JOINTS AT ALL CURB/SIDEWALK, BUILDING/SIDEWALK, LIGHT POLE, OR ANY OTHER FIXED OBJECTS (I.E. EXISTING PAVEMENT, WALLS, POLES, AND FOUNDATIONS) AND ALL LOCATIONS SHOWN ON LAYOUT AND MATERIALS PLANS.
3. THE MAXIMUM DIMENSION BETWEEN EXPANSION JOINTS IN PAVEMENT AND WALLS TO BE 60'-0". THE MAXIMUM DISTANCE BETWEEN EXPANSION JOINTS IN CURBS TO BE 120'-0".

_EXPANSION JOINT
NO SCALE



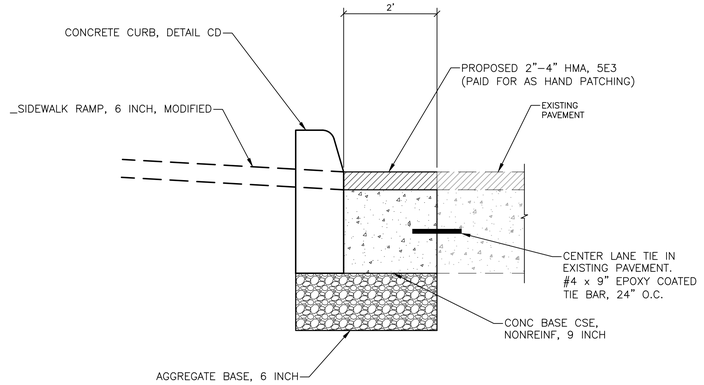
_SEAT WALL EXPANSION JOINT
NO SCALE



1. ¼" WIDE CONTROL JOINT SAWN ¼ DEPTH OF PAVEMENT
2. CONCRETE PAVEMENT

NOTE:
1. CONTROL JOINTS MAY BE SAWCUT AS SOON AS THE CONCRETE HAS SUFFICIENTLY HARDENED TO PREVENT RAVELING OF THE CONCRETE AT THE EDGES OF THE JOINT.
2. MAXIMUM DIMENSION BETWEEN _CONTROL JOINTS IN SIDEWALKS, CURBS, WALLS, ETC. TO BE 10'-0".
3. CONTROL JOINTS INCLUDING ALL ASSOCIATED MATERIALS ARE INCIDENTAL TO PAVEMENT PAY ITEMS.

_CONTROL JOINT
NO SCALE



HAND PATCHING
NO SCALE

MISCELLANEOUS DETAILS

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Drawn By	AOF
Designer	AOF
Reviewer	DPE
Manager	KK3

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PROJECT NO.
191185

SHEET NO.
C702

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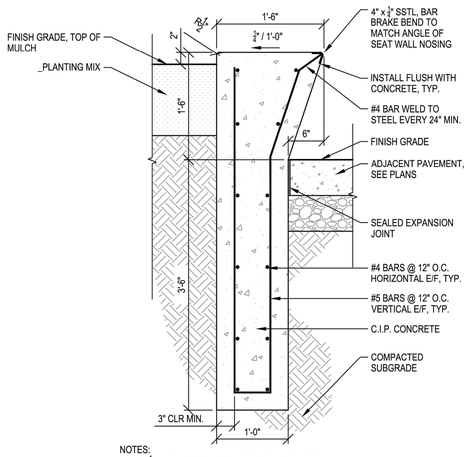
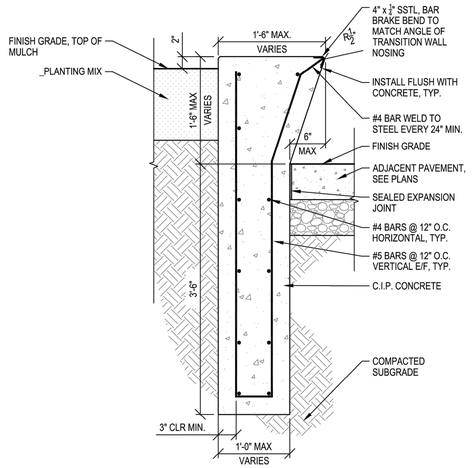


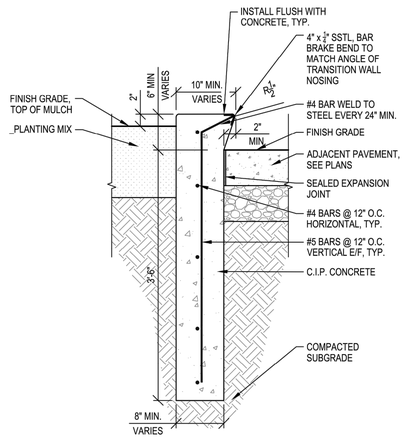
NOTES:
1) ¾" RADIUS NOSING ON EXPOSED CORNERS AS DRAWN.
2) CONCRETE SURFACES TO BE TROWELED SMOOTH FINISH.
3) CURED CONCRETE EXPOSED SURFACES TO BE PAINTED WITH ACRYLIC WATERPROOF CONCRETE COATING, BACK SIDE OF PLANTER PAINTED 12" DOWN, CUSTOM COLOR TO BE APPROVED BY OWNER, PROVIDE SAMPLES PRIOR TO INSTALLATION. COATING TO BE 'MASTERPROTECT HB 400' BY BASF.

1 (SEE SHEET C701)

SEAT WALL
NO SCALE



TRANSITION WALL AT SEAT WALL

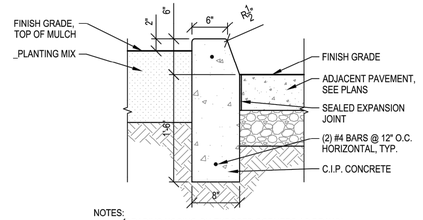


TRANSITION WALL AT CURB WALL

NOTES:
1) ¾" RADIUS NOSING ON EXPOSED CORNERS AS DRAWN.
2) CONCRETE SURFACES TO BE TROWELED SMOOTH FINISH.
3) CURED CONCRETE EXPOSED SURFACES TO BE PAINTED WITH ACRYLIC WATERPROOF CONCRETE COATING, BACK SIDE OF PLANTER PAINTED 12" DOWN, CUSTOM COLOR TO BE APPROVED BY OWNER, PROVIDE SAMPLES PRIOR TO INSTALLATION. COATING TO BE 'MASTERPROTECT HB 400' BY BASF.
4) TRANSITION WALL DRAWINGS SHOW ITS MAXIMUM AND MINIMUM HEIGHTS - INTERMEDIATE WALL HEIGHT AND THICKNESS WILL VARY, BATTERED FACE TO BE CONTINUOUS PLANAR SURFACE THROUGH TRANSITION.
5) WHEN BASE OF WALL THICKNESS DECREASES TO 9" AND LESS VERTICAL STEEL REINFORCEMENT TRANSITIONS FROM TWO (2) VERTICAL BARS TO ONE (1) VERTICAL BAR.

2 (SEE SHEET C701)

TRANSITION WALL
NO SCALE



NOTES:
1) ¾" RADIUS NOSING ON EXPOSED CORNERS AS DRAWN.
2) CONCRETE SURFACES TO BE TROWELED SMOOTH FINISH.
3) CURED CONCRETE EXPOSED SURFACES TO BE PAINTED WITH ACRYLIC WATERPROOF CONCRETE COATING, BACK SIDE OF PLANTER PAINTED 12" DOWN, CUSTOM COLOR TO BE APPROVED BY OWNER, PROVIDE SAMPLES PRIOR TO INSTALLATION. COATING TO BE 'MASTERPROTECT HB 400' BY BASF.

3 (SEE SHEET C701)

CURB WALL
NO SCALE

MISCELLANEOUS DETAILS

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Reviewer	DPE
Manager	KK3

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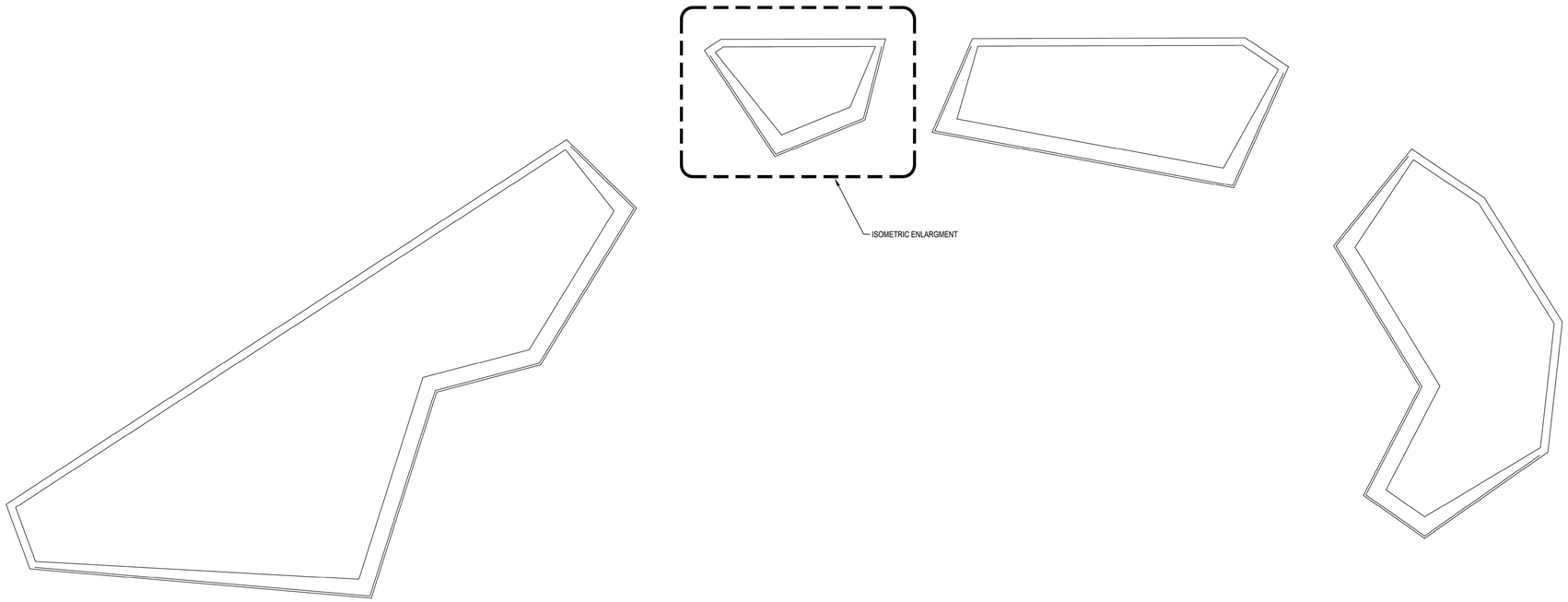
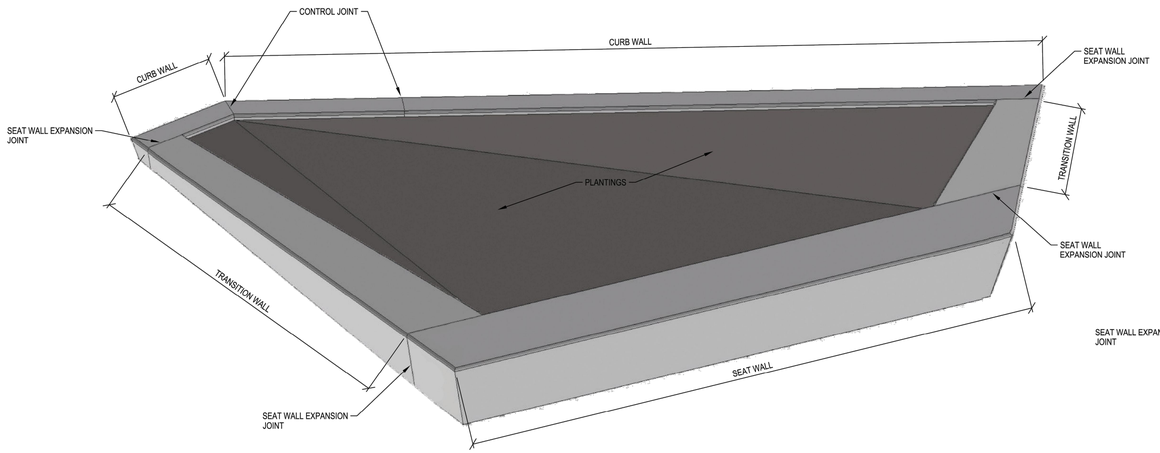
PROJECT NO.
191185

SHEET NO.
C703

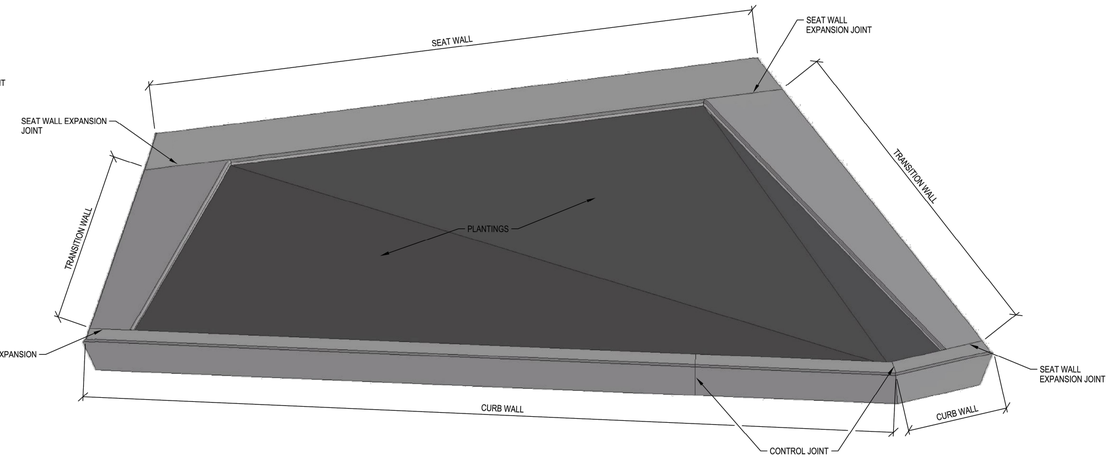
PLOT INFO: Z:\2019\191185\CAD\CD\C703\191185 CD.DWG LAYOUT: C703 DATE: 4/13/2020 TIME: 7:16:03 PM USER: AOFRANZON



PLANTER WALLS KEY PLAN



FRONT ISOMETRIC



REAR ISOMETRIC

PLANTER WALLS SCHEMATIC DIAGRAM
NO SCALE

MISCELLANEOUS DETAILS

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REVISIONS

04/14/2020	100% CD
04/01/2020	100% CD
03/04/2020	95% CD
02/03/2020	90% CD
12/27/2019	60% CD
12/06/2019	30% CD

Drawn By	AOF
Designer	AOF
Reviewer	DPE
Manager	KK3

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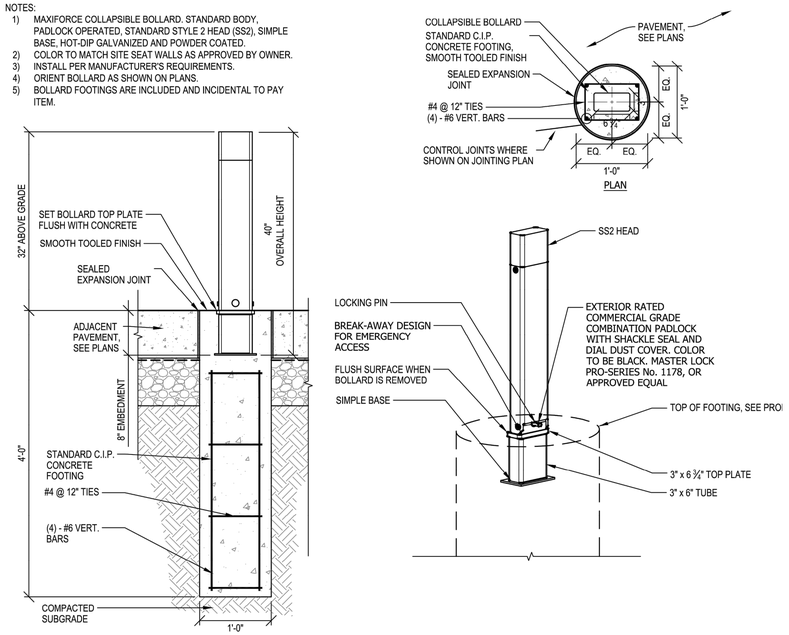
PROJECT NO.
191185

SHEET NO.
C704

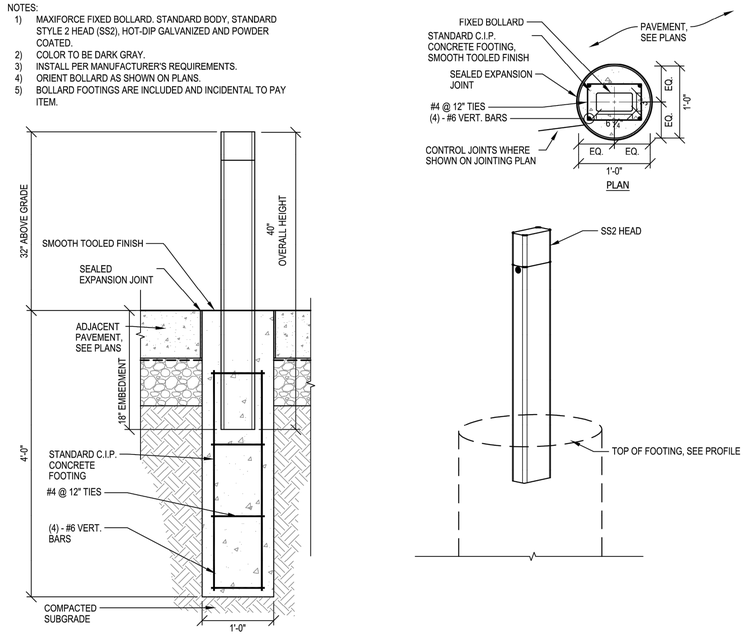
PLOT INFO: Z:\2019\191185\CAD\CD\C704 LAYOUT: C704 DATE: 4/13/2020 TIME: 7:16:21 PM USER: AOFRANZON

NOTES:
1) MAXIFORCE COLLAPSIBLE BOLLARD. STANDARD BODY, PADLOCK OPERATED, STANDARD STYLE 2 HEAD (SS2), SIMPLE BASE, HOT-DIP GALVANIZED AND POWDER COATED.
2) COLOR TO MATCH SITE SEAT WALLS AS APPROVED BY OWNER.
3) INSTALL PER MANUFACTURER'S REQUIREMENTS.
4) ORIENT BOLLARD AS SHOWN ON PLANS.
5) BOLLARD FOOTINGS ARE INCLUDED AND INCIDENTAL TO PAY ITEM.

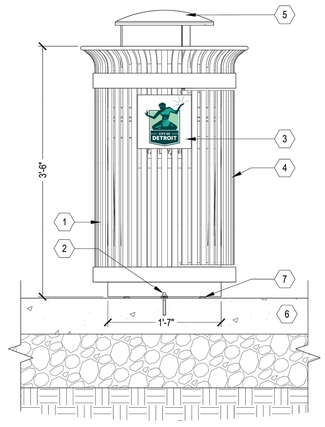


BOLLARD, COLLAPSIBLE
NO SCALE

NOTES:
1) MAXIFORCE FIXED BOLLARD. STANDARD BODY, STANDARD STYLE 2 HEAD (SS2), HOT-DIP GALVANIZED AND POWDER COATED.
2) COLOR TO BE DARK GRAY.
3) INSTALL PER MANUFACTURER'S REQUIREMENTS.
4) ORIENT BOLLARD AS SHOWN ON PLANS.
5) BOLLARD FOOTINGS ARE INCLUDED AND INCIDENTAL TO PAY ITEM.



BOLLARD, FIXED
NO SCALE

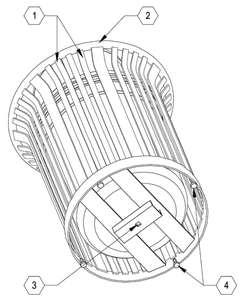


FRONT ELEVATION

1. VICTOR STANLEY MODEL SD-42 TRASH RECEPTACLE
2. 1/2" Ø X 4" S.S. VANDAL RESISTANT ANCHOR BOLT, TYP.
3. CUSTOM STEEL PLAQUE WITH PRESSURE SENSITIVE OUTDOOR DECAL OF CITY OF DETROIT LOGO - ONE PLAQUE ON OPPOSITE SIDE OF SELF-CLOSING DOOR.
4. STANDARD LOCKABLE LATCH
5. RAIN BONNET LID
6. CONCRETE SIDEWALK
7. PROVIDE ADJUSTABLE GLIDES

NOTES:

1. TRASH RECEPTACLE TO BE VICTOR STANLEY, MODEL SD-42 WITH RAIN BONNET LID, 36 GALLON CAPACITY.
2. ALL FABRICATED COMPONENTS ARE STEEL HOT-DIPPED GALVANIZED WITH BLACK POWDER COAT FINISH.
3. SURFACE MOUNT USING (1) 1/2" Ø X 4" S.S. THREADED ANCHOR RODS. FILL HOLES WITH ANCHORING ADHESIVE/ EPOXY.
4. SEE LAYOUT PLANS FOR TRASH RECEPTACLE LOCATIONS. CONFIRM ALL TRASH RECEPTACLE LOCATIONS AND ORIENTATIONS WITH ENGINEER PRIOR TO INSTALLATION.
5. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
6. PROVIDE HIGH DENSITY PLASTIC LINER. DRILL ¾" Ø DRAINAGE HOLES IN BOTTOM OF LINER.

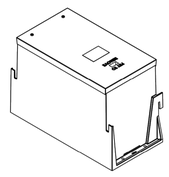


AXONOMETRIC VIEW- SURFACE MOUNTING

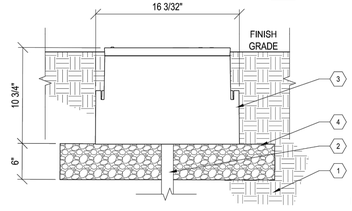
1. 3/8" X 1" VERTICAL SOLID STEEL BARS
2. 5/8" SOLID STEEL TOP RING
3. 3/4" SQUARE CENTER ANCHOR BOLT HOLD
4. LEVELING FEET WITH A 3/8" Ø THREADED STEEL SHAFT

TRASH RECEPTACLE
NO SCALE

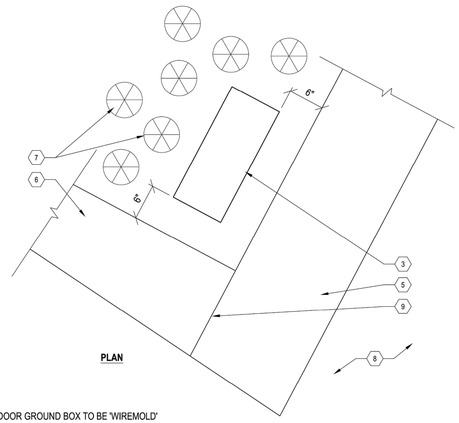
1. SUBGRADE
2. ELECTRICAL CONDUIT, BY OTHERS
3. OUTDOOR GROUND BOX
4. COMPACTED AGGREGATE
5. SEAT WALL, SEE DETAILS
6. TRANSITION WALL, SEE DETAILS
7. PLANTINGS, VARIES, SEE PLANTING PLAN
8. SIDEWALK
9. SEAT WALL EXPANSION JOINT, SEE DETAILS



AXON



SECTION



PLAN

NOTES:
1. OUTDOOR GROUND BOX TO BE 'WIREMOLD' BY LEGRAND, 2 NEMA DUPLEX GFI ON 2 SEPARATE CIRCUITS, LOCKABLE UNIT, SEE ELECTRICAL PLANS.
2. INSTALL PER MANUFACTURER'S SPECIFICATIONS.

IN-GROUND ELECTRICAL POWER BOX
NO SCALE

MISCELLANEOUS DETAILS

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REVISIONS

04/14/2020	100% CD
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12/06/2019	30% CD

Drawn By	AOF
Designer	AOF
Reviewer	DPE
Manager	KK3

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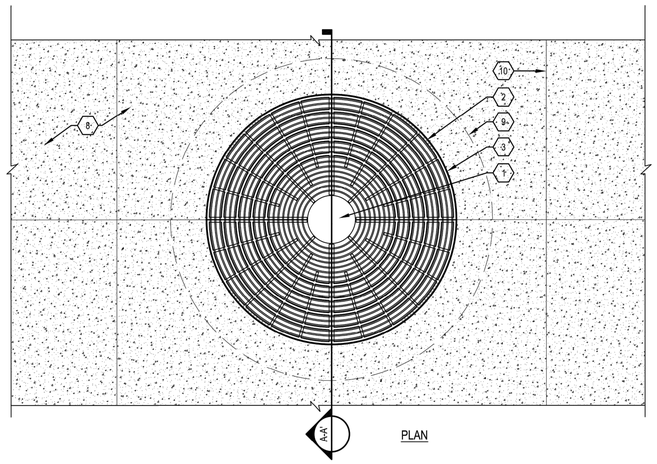
PROJECT NO.
191185

SHEET NO.
C705

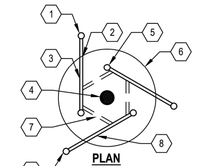
PLOT INFO: Z:\2019\191185\CAD\CDs\C705 LAYOUT: C705 DATE: 4/13/2020 TIME: 7:16:57 PM USER: AOFRANZON



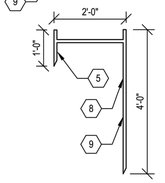
PLAN

1. 4" CALIPER DECIDUOUS TREE (SEE PLANTING PLANS)
2. _TREE GRATE, URBAN ACCESSORIES 7' ROUND RAINBOW TREE GRATE
3. TREE GRATE, FRAME AND FRAME ANCHOR INTO CONCRETE
4. ROOT BALL STABILIZER
5. _PLANTING MIX (BELOW ROOT BALL; COMPACT TO 85-90% PROCTOR)
6. _PLANTING MIX (COMPACT TO 70-80% PROCTOR)
7. GEOTEXTILE SEPARATION FABRIC
8. CAST-IN-PLACE CONCRETE SIDEWALK, SURFACE VARIES SEE PLANS
9. THICKENED EDGE CONCRETE, 1'-0" WIDE X 1'-0" DEEP
10. CONTROL JOINTS IN PAVEMENT
11. EXISTING SUBGRADE
12. AGGREGATE BASE, DRAINAGE COURSE, 12-INCH DEPTH
13. DEEPROOT UB12-2 ROOT BARRIER, TYP. INSTALL FOUR PER TREE, EQUALLY SPACE AT CONCRETE EDGE RESTRAINT
14. PEA STONE, 2-INCH DEPTH
15. WATERING / AERATION PIPE LOOP, 3-INCH Ø PVC, PROVIDE CAP WITH SSTL SCREEN, 4' X 4' RECTANGLE, 90° FITTINGS TO BE GLUED, 1/8-INCH Ø HOLES DRILLED EVERY 6" ON BOTTOM OF PIPE, NO DRILLING WITHIN FITTINGS
16. ACCESS HOLE IN GRATE (ALIGNED ON ROAD SIDE OF TREE GRATE) TO ALIGN WITH VERTICAL PIPE OF WATERING / AERATION SYSTEM, COORDINATE WITH TREE GRATE MANUFACTURER

NOTES:
1. TREE GRATE TO BE 7' ROUND 'RAINBOW' TREE GRATE BY URBAN ACCESSORIES, SEE MANUFACTURER INFORMATION FOR EACH GRATE.
2. TREE GRATE TO BE ADA COMPLIANT.
3. PROVIDE TREE GRATE IN CAST DUCTILE IRON MEETING LOAD CLASS C WITH BAKED-ON-OIL FINISH.
4. SPOT WELD EACH TREE GRATE SECTION TO THE FRAME IN A MINIMUM OF 3 LOCATIONS TO ENSURE TREE GRATES CAN NOT BE REMOVED.
5. PROVIDE MATCHING FRAME FROM MANUFACTURER FOR EACH TREE GRATE. FRAME SHALL BE PROVIDED WITH ANCHORS THAT ALLOW THE FRAME TO BE CAST INTO THE SURROUNDING CONCRETE.
6. LOCATE TREE GRATES AS SHOWN ON PLANS AND CONFIRM LOCATION WITH ENGINEER PRIOR TO PROCEEDING WITH INSTALLATION OF CAST-IN-PLACE CONCRETE SIDEWALK.
7. INSTALL THE TREE GRATE AND FRAME WITH A UNIFORM SLOPE IN ONE DIRECTION CORRESPONDING WITH THE ADJACENT PAVEMENT SLOPE. DO NOT WARP OR UNEVENLY DROP THE ELEVATION OF ONE OR MORE CORNERS OF THE TREE GRATE AND FRAME TO ENSURE GRATES SET FLUSH CONTINUOUSLY AROUND THE FRAME WITHOUT ROCKING. ENSURE THE TREE GRATES ARE SET FLUSH AND EVEN WITH THE FRAME AND ADJACENT PAVEMENT.
5. REFER TO IRRIGATION DRAWINGS AND SPECIFICATIONS FOR DRIP IRRIGATION REQUIREMENTS.



PLAN

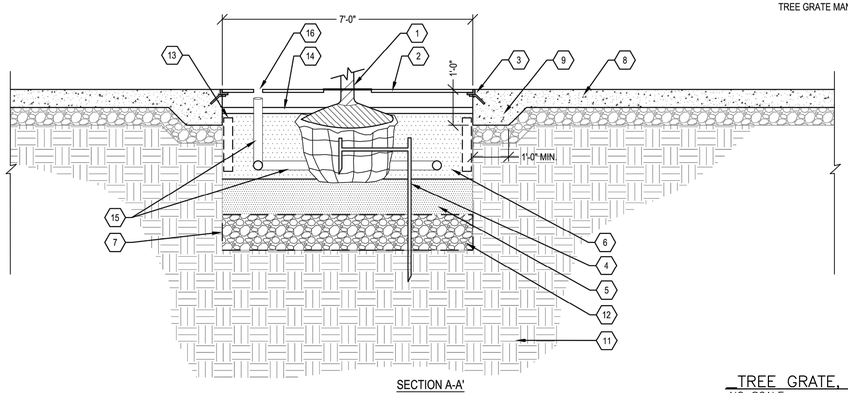


ELEVATION

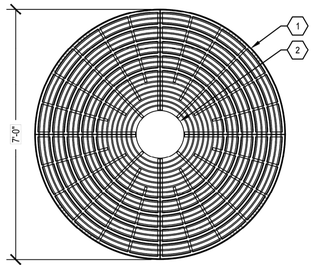
1. PLACE SAFETY CAPS ON EXPOSED ENDS AFTER INSTALLATION
2. LOCATE ROOT BALL STABILIZERS (STAPLES) EQUALLY AROUND THE TREE BALL
3. DRIVE ROOT BALL STABILIZER (STAPLE) INTO THE GROUND UNTIL THE CROSS-BAR IS RECESSED 1" TO 2" BELOW THE SURFACE OF THE ROOT BALL.
4. TREE TRUNK
5. SHORT PRONG - LOCATE HALFWAY BETWEEN THE TREE TRUNK AND OUTER EDGE OF THE TREE BALL.
6. TREE ROOT BALL
7. FOR LOOSE ROOT BALLS OR CONTAINER STOCK, TIE BURLAP TREE WRAP (3"-5" WIDTH) TO THE CROSS BARS ON EITHER SIDE OF THE TREE TRUNK. KEEP BURLAP WRAP AWAY FROM TREE TRUNK.
8. 48" STEEL ROOT BALL STABILIZER (STAPLE) PROVIDE (3) PER TREE
9. LONG PRONG - LOCATE OUTSIDE AND ADJACENT TO THE TREE BALL

ROOT BALL STABLIZER

ROOT BALL STABILIZER
NO SCALE

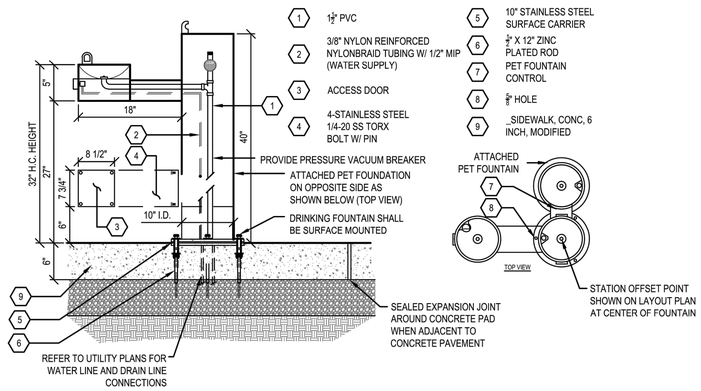


SECTION A-A'



1. URBAN ACCESSORIES 7' ROUND RAINBOW TREE GRATE
2. 1'-4" OPENING SIZE

_TREE GRATE, 7 FT DIA.
NO SCALE



1. 1½" PVC
2. 3/8" NYLON REINFORCED NYLONBRAID TUBING W/ 1/2" MIP (WATER SUPPLY)
3. ACCESS DOOR
4. 4-STAINLESS STEEL 1/4-20 SS TORX BOLT W/ PIN
5. 10" STAINLESS STEEL SURFACE CARRIER
6. ¾" X 12" ZINC PLATED ROD
7. PET FOUNTAIN CONTROL
8. ¾" HOLE
9. _SIDEWALK, CONC, 6 INCH, MODIFIED

PROVIDE PRESSURE VACUUM BREAKER
ATTACHED PET FOUNDATION ON OPPOSITE SIDE AS SHOWN BELOW (TOP VIEW)
DRINKING FOUNTAIN SHALL BE SURFACE MOUNTED

NOTES:
1. _DRINKING FOUNTAIN SHALL BE MOST DEPENDABLE FOUNTAINS MODEL 440 SM.
2. _DRINKING FOUNTAIN TO BE ADA COMPLIANT.
3. INSTALL ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
4. PROVIDE STAINLESS STEEL SURFACE CARRIER.
5. PROVIDE ATTACHED PET FOUNTAIN AND STAINLESS STEEL SURFACE CARRIER.
6. REFER TO IRRIGATION DETAILS FOR WATER SOURCE DETAIL.
7. REFER TO UTILITY PLANS FOR WATER AND DRAIN CONNECTIONS.
8. _DRINKING FOUNTAIN LOCATION AND ORIENTATION TO BE FIELD STAKED FOR ENGINEER REVIEW AND APPROVAL.
9. COLOR TO BE APPROVED BY OWNER.

_DRINKING FOUNTAIN
NO SCALE

MISCELLANEOUS DETAILS

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REVISIONS

04/14/2020	100% CD
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Drawn By	AOF
Designer	AOF
Reviewer	DPE
Manager	KK3

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PROJECT NO.
191185

SHEET NO.
C706

PLOT INFO: Z:\2019\191185\CAD\CIDIC706191185 CD.DWG LAYOUT: C706 DATE: 4/13/2020 TIME: 7:17:46 PM USER: AOFRANZON

NOTES:

1. SUBMIT COMPLETE SHOP DRAWINGS SHOWING FABRICATION, MATERIALS, INSTALLATION DETAILS, DIMENSIONS, FONTS / LETTERING, FINISHES, ACCESSORIES, JOINTS, WELDS, ANCHORAGE, GRAPHIC SYMBOLS, COLORS AND OTHER APPURTENANCES REQUIRED FOR A COMPLETE SIGN INSTALLATION TO THE ENGINEER FOR REVIEW AND APPROVAL. SHOP DRAWINGS SHALL BE APPROVED PRIOR TO FABRICATION.

2. COORDINATE AND FIELD VERIFY SIGN LOCATION AND ORIENTATION WITH THE ENGINEER PRIOR TO FABRICATION AND INSTALLATION. VERIFY FIELD CONDITIONS AND MEASUREMENTS BEFORE FABRICATION AND INSTALLATION. VERIFY UTILITY LINES IN THE AREA PROPOSED FOR THE SIGN INSTALLATION. ANY DAMAGE DURING INSTALLATION OF SIGN TO UTILITIES WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR AT NO ADDITIONAL COST.

3. EXPOSED PORTION OF THE CONCRETE FOUNDATION SHALL BE CLEAN, SMOOTH, CONSISTENT FINISH WITHOUT IMPERFECTIONS, CHIPS, MARKS AND HONEYCOMB. FOUNDATIONS NOT MEETING THESE REQUIREMENTS SHALL BE REPLACED AT NO ADDITIONAL COST.

4. SHOP FABRICATE AND PRE-ASSEMBLE SIGN.

5. ALL STEEL COMPONENTS TO BE EXTERIOR RATED AND SHALL EITHER BE GALVANIZED, POWDERCOATED OR STAINLESS STEEL.

6. ALL EXPOSED HARDWARE TO BE TACIT WELDED ON NON-EXPOSED SIDE FOR VANDAL RESISTANCE OR OTHER METHOD APPROVED BY ENGINEER.

7. THE SIGN DETAILS ARE PROVIDED TO FORM THE BASIS OF DESIGN AND ARE PROVIDED TO ILLUSTRATE THE AESTHETIC, PERFORMANCE AND FUNCTIONAL CHARACTERISTICS ONLY. THE DIMENSIONS SHOWN ARE PROVIDED TO QUANTIFY THE FORM AND OVERALL SCALE OF THE SIGN. THE DIMENSIONS PROVIDED DO NOT INDICATED THE PRECISE SIZES OF MEMBERS OR ASSEMBLIES.

8. THE CONTRACTOR IS REQUIRED TO PROVIDE THE ENGINEERING AND STRUCTURAL DESIGN AS WELL AS ALL OTHER REQUIRED COMPONENTS IN ORDER TO PROVIDE A COMPLETE AND OPERATIONAL SIGN THAT MATCHES THE DESIGN ILLUSTRATED. MODIFICATIONS TO THE FOUNDATION, ANCHORAGES/FASTENERS, STRUCTURAL MEMBERS AND OTHER COMPONENTS MAY BE NECESSARY.

9. SIGNS MUST WITHSTAND 100 MPH WIND LOADS AND MEET ALL APPLICABLE BUILDING CODES, LAWS AND REGULATIONS. THE DESIGN LOADS SHALL BE IN ACCORDANCE WITH THE INTERNATIONAL AND MICHIGAN BUILDING CODES.

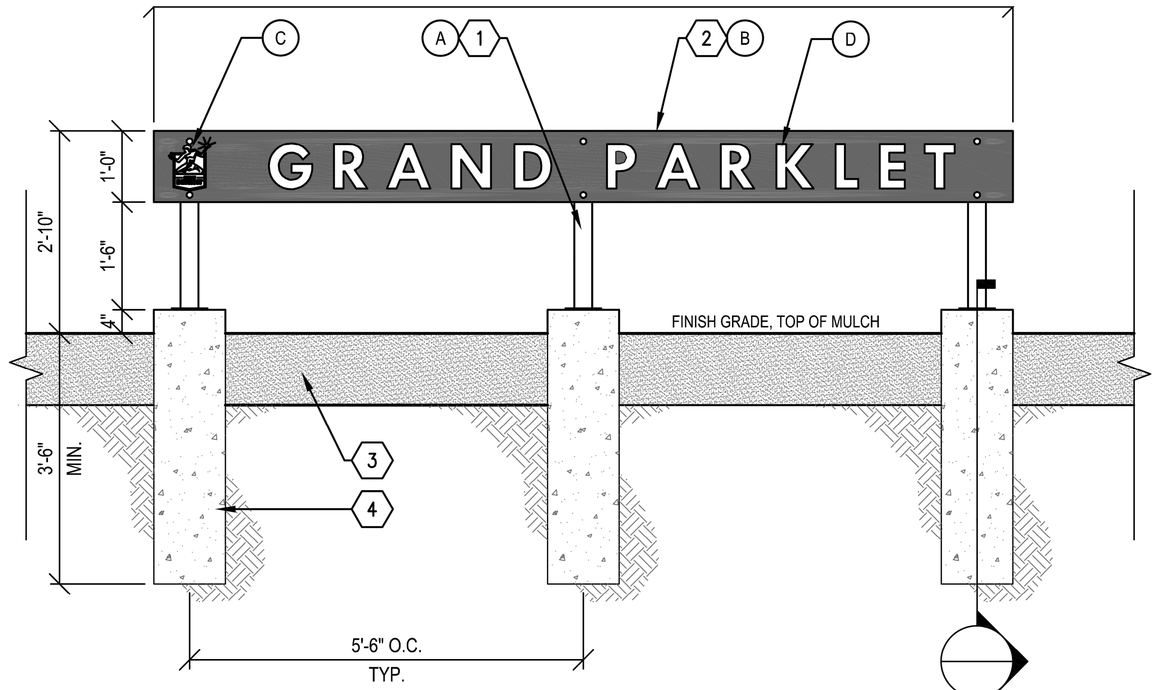
10. THE CONTRACTOR IS REQUIRED TO PROVIDE THE ENGINEERING, MATERIALS, EQUIPMENT, FABRICATION, TOOLS, LABOR AND INSTALLATION OF THE HORIZONTAL SIGN INCLUDING ALL ANCHORAGES/MOUNTING ACCESSORIES, FOUNDATIONS, FITTINGS, FASTENINGS, STRUCTURAL SUPPORTS, RIGGING AND FINISHES. ALL SIGN MATERIALS SHALL BE DESIGNED AND RATED FOR EXTERIOR ENVIRONMENTS.

NOTES:

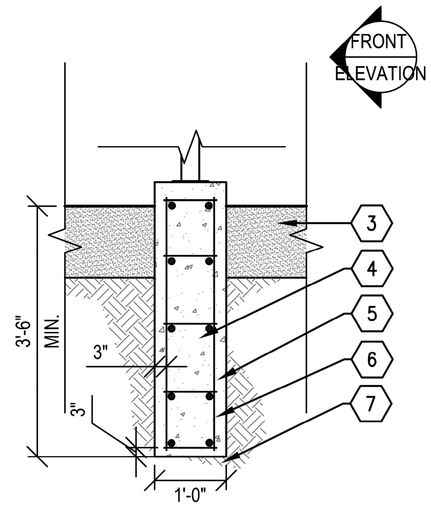
1. VERTICAL HSS SUPPORTS
2. VERTICAL POWDERCOATED STEEL PLATE
3. PLANTING MIX, SEE PLANS
4. CAST-IN-PLACE CONCRETE FOOTING, TYP.
5. #4 @ 12" TIES, TYP.
6. (4) - #6 VERT. BARS, TYP.
7. COMPACTED SUBGRADE

NOTES:

A. COLOR: MATTE BLACK
B. COLOR: PANTONE / RAL TO MATCH SEAT WALLS
C. CITY OF DETROIT LOGO - COLOR
D. ANODIZED CAST ALUMINUM LETTERS; COLOR: WHITE



FRONT ELEVATION



SECTION - SIDE VIEW

SIGN, GRAND PARKLET
NO SCALE

MISCELLANEOUS DETAILS

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REVISIONS

04/14/2020 100% CD
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12/06/2019 30% CD

Drawn By	AOF
Designer	AOF
Reviewer	DPE
Manager	KK3

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PROJECT NO.
191185

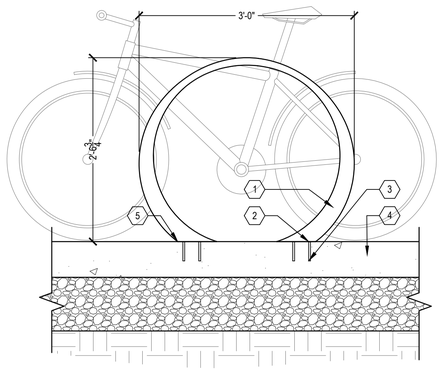
SHEET NO.
C707

PLOT INFO: Z:\2019\191185\CAD\CD\C707\191185 CD.DWG LAYOUT: C707 DATE: 4/13/2020 TIME: 7:18:17 PM USER: AOFRANZON

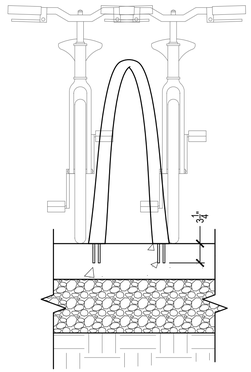
1. LOOP BIKE RACK
2. 7/16" Ø X 4" S.S. THREADED ANCHOR RODS
3. (4) 7/16" DIA. HOLES -4 1/4" DEEP FOR ANCHOR RODS
4. _SIDEWALK, CONC, 6 INCH
5. BOTTOM OF BIKE RACK TO SET FLUSH ON CONCRETE PAVEMENT
6. CURB, SEE PLANS

NOTES:

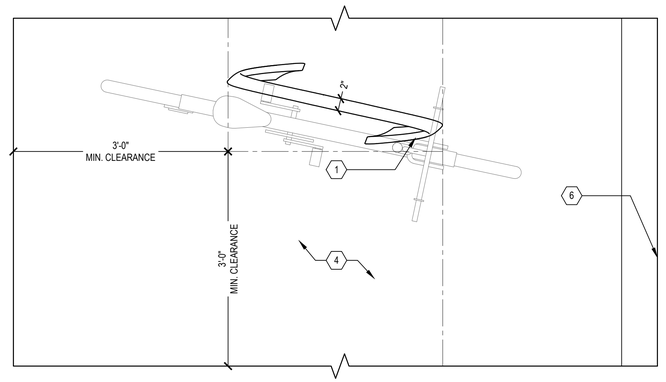
1. BIKE RACK TO BE LANDSCAPE FORMS, 35 COLLECTION, MODEL 'LOOP'.
2. BIKE RACK IS ALUMINUM CASTING WITH MATTE BLACK POWDER COAT FINISH.
3. SURFACE MOUNT USING (4) 5/16" Ø X 4" S.S. THREADED ANCHOR RODS. FILL HOLES WITH ANCHORING ADHESIVE/ EPOXY. REMOVE EXCESS EPOXY FROM CONCRETE AND BIKE RACK BEFORE IT CURES.
4. SEE LAYOUT PLANS FOR BIKE RACK LOCATIONS. CONFIRM LOCATIONS, SPACING, AND ORIENTATION ON-SITE WITH ENGINEER PRIOR TO INSTALLATION.
5. INSTALL PER MANUFACTURERS RECOMMENDATIONS.
6. PRIOR TO INSTALLATION CONFIRM WITH ENGINEER THAT AN ACCESSIBLE ADA PEDESTRIAN PATH IS PROVIDED ADJACENT TO BIKE RACKS.



FRONT ELEVATION



SECTION

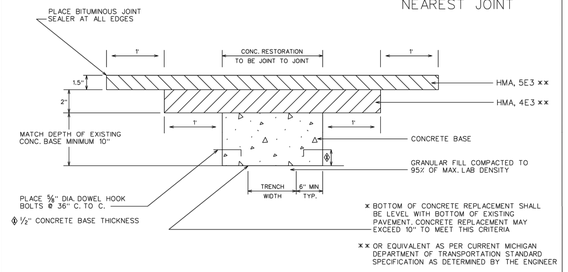


PLAN

_BIKE RACK
NO SCALE

MAJOR STREETS:

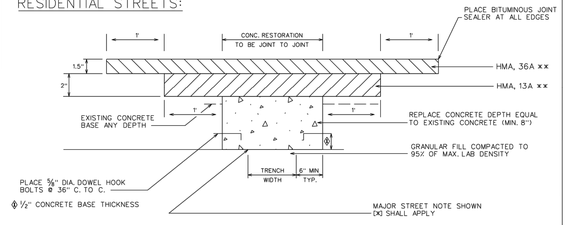
NOTE: PAVEMENT CUTS MUST EXTEND TO NEAREST JOINT



EXCEPTION:

TO ABOVE 3" HMA REPLACEMENT, WHEN PAVEMENT REPLACEMENT IS 100 FEET FROM EITHER SIDE OF UNDERPASS REPLACE 10" MIN CONCRETE BASE WITH TOP OF CONCRETE LEVEL WITH TOP OF EXISTING CONCRETE AND REPLACE HMA SECTION AS EXISTING

RESIDENTIAL STREETS:



ISOLATED CUT:

TRIM JOINT TO OBTAIN VERTICAL CUT

B					
A					
DESCRIPTION		DRWN	CHKD	APPD	DATE
REVISIONS					
DRAWN BY WLW	CHECKED KSM				
DATE 08/29/18	APPROVED SRB				

HMA SURFACE ON CONCRETE BASE UTILITY TRENCH CONSTRUCTION PAVEMENT RESTORATION

CITY OF DETROIT
CITY ENGINEERING DIVISION
SURVEY BUREAU
JOB NO.
DRWG. NO. 1 OF 2

CITY OF DETROIT NOTES

1. MILL (REMOVE) HMA PAVEMENT WITHIN AND BEYOND THE AREA OF TRENCH PAVEMENT REMOVAL IN ORDER TO DETERMINE LOCATION OF UNDERLYING CONCRETE BASE PAVEMENT JOINTS. MILL MINIMUM TO 1' BEYOND NEAREST CONCRETE JOINTS.
2. EXTEND UTILITY TRENCH CONCRETE PAVEMENT REMOVAL TO ALL CONCRETE PAVEMENT JOINTS AND / OR CURBS ADJACENT TO THE TRENCH AREA. REMOVAL SHALL BE "JOINT TO JOINT".
3. CONCRETE PAVEMENT CUTS SHALL BE MINIMUM 3' WIDE.
4. ALL PAVEMENT CUTS SHALL BE MINIMUM 1' WIDER THAN TRENCH WIDTH.
5. ALL REMOVALS SHALL BE SAWCUT STRAIGHT AND SQUARE (90 DEGREES).
6. CONCRETE RESTORATION PAVEMENT SHALL BE MDOT P1 MIX (3,500 PSI).
7. RESTORED CONCRETE PAVEMENT SHALL MATCH THICKNESS OF EXISTING CONCRETE PAVEMENT IN CONFORMANCE WITH MDOT STANDARDS DETAIL R-44-F.
8. RESTORED CONCRETE SHALL BE ANCHORED TO EXISTING CONCRETE PAVEMENT IN CONFORMANCE WITH MDOT STANDARD DETAIL R-44-F
9. APPLY HMA TACK COAT PER MDOT STANDARD SPECIFICATIONS SECTION 904.
10. RESTORE HMA PAVEMENT 3½" TO MATCH EXISTING, IN 2 LIFTS:
    1ST LIFT - 2" MDOT HMA 4E3 (13A RESIDENTIAL), COMPACTED, EXTENDED 1' BEYOND BASE CONCRETE REPAIR.
    2ND LIFT - 1½" MDOT HMA 5E3 (36A RESIDENTIAL), COMPACTED, EXTENDED 1' BEYOND 1ST LIFT..
11. BITUMINOUS JOINT SEALER SHALL BE PLACED AT ALL FINISHED HMA JOINTS.
12. ALL DISTRUBED PAVEMENT MARKINGS AND OTHER ASSETS, INCLUDING BIKE LANE DELINEATORS, WILL HAVE TO BE REPLACED AT THE COST OF THE PERMIT HOLDER, AND SHALL CONFORM TO THE LATEST CED / TED STANDARDS.
13. FOR OTHER RELATED SPECIFICATIONS (BACKFILL COMPACTION, MATERIALS, ETC...), REFER TO DIVISION 15 OF THE STANDARD SPECIFICATIONS FOR PAVING AND RELATED CONSTRUCTION.
14. NOTIFY THE CITY OF DETROIT ENGINEERING DEPARTMENT 24 HOURS PRIOR TO STARTING CONSTRUCTION.
15. ANY OPEN EXCAVATIONS ARE TO BE STEEL PLATED. IF EXCAVATIONS ARE IN THE PAVEMENT, THE PLATES ARE TO BE SPIKED AND RAMPED WITH COLD PATCH. CONTACT THE CITY WITH LOCATION OF THE STEEL PLATE.
16. THE CITY OF DETROIT REQUIRES ALL CONCRETE WORK TO BE STAMPED WITH A CONTRACTORS IDENTIFICATION STAMP.

B					
A					
DESCRIPTION		DRWN	CHKD	APPD	DATE
REVISIONS					
DRAWN BY WLW	CHECKED KSM				
DATE 08/29/18	APPROVED SRB				

HMA SURFACE ON CONCRETE BASE UTILITY TRENCH CONSTRUCTION PAVEMENT RESTORATION

CITY OF DETROIT
CITY ENGINEERING DIVISION
SURVEY BUREAU
JOB NO.
DRWG. NO. 2 OF 2

HMA SURFACE ON CONCRETE BASE UTILITY TRENCH CONSTRUCTION PAVEMENT RESTORATION
NO SCALE

MISCELLANEOUS DETAILS

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REVISIONS

04/14/2020	100%CD
04/01/2020	100%CD
03/04/2020	95%CD
02/03/2020	90%CD
12/27/2019	60%CD
12/06/2019	30%CD

Drawn By	AOF
Designer	AOF
Reviewer	DPE
Manager	KK3

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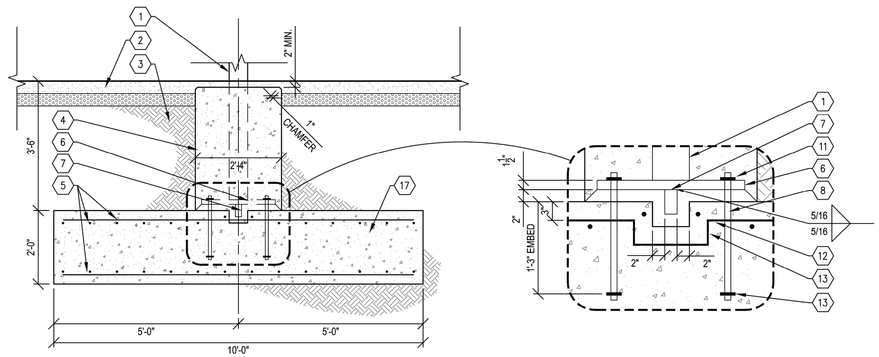
PROJECT NO.
191185

SHEET NO.
C708

PLOT INFO: Z:\2019\191185\CAD\CIV\191185-CD.DWG LAYOUT: C708 DATE: 4/13/2020 TIME: 7:18:54 PM USER: AOFRANZON

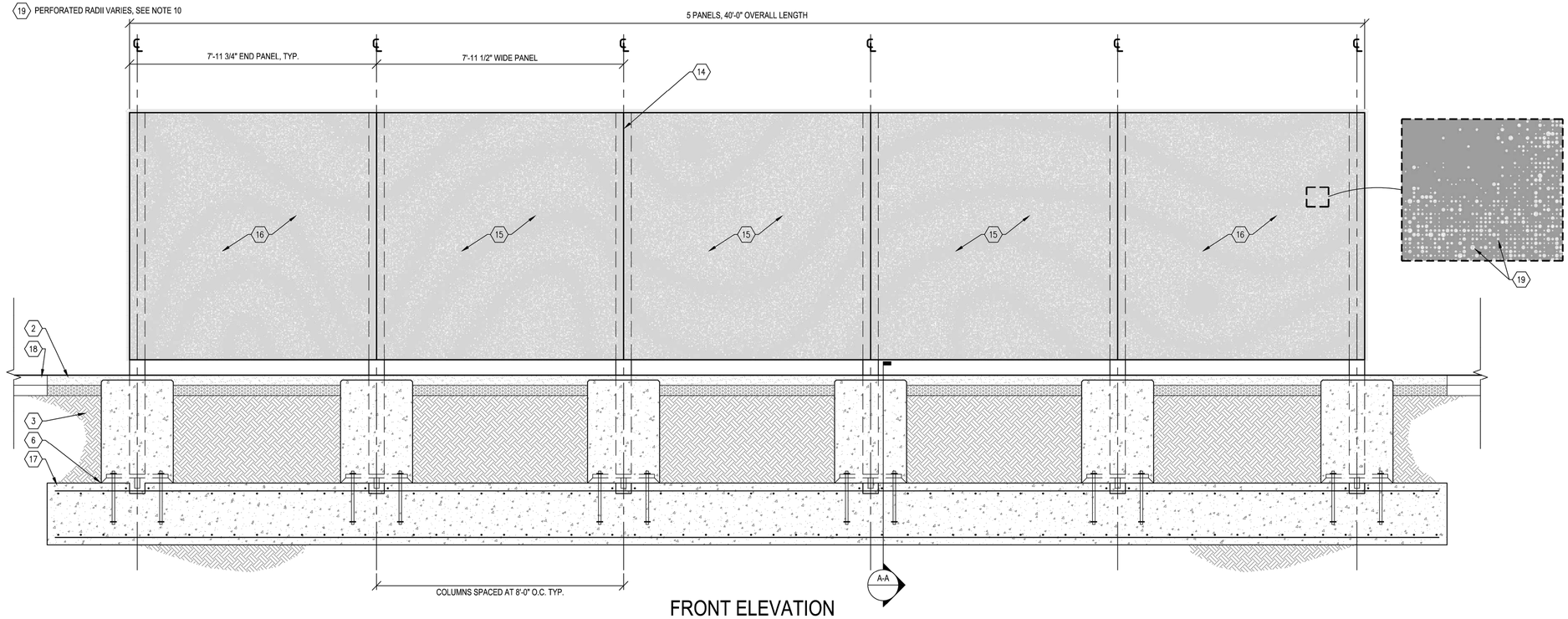
1. W6 X 20 COLUMN
2. _POROUS RESIN BONDED AGGREGATE
3. SUBGRADE
4. CAST-IN-PLACE CONCRETE FOOTING, TYP.
5. #6 @ 8", T/B
6. BASE PLATE
7. 6" WIDE X 4" DEEP X 1" THK. SHEAR LUG
8. 1' Ø GR 55 ANCHOR RODS
9. 6" WIDE X 4" DEEP X 1" THK. SHEAR LUG
10. NON-SHRINK GROUT
11. HEAVY HEX NUT AND WASHER
12. TERMINATE FOOTING REINFORCE WITH STD HOOK
13. PROVIDE ADDITIONAL REINFORCEMENT AT SHEAR LUG, SIZE AND SPACING TO MATCH FOOTING TOP REINFORCEMENT
14. ¾" SPACING BETWEEN PANELS, TYP.
15. ¾" THICK X 7'-11 ¾" WIDE X 8'-0" HEIGHT PERFORATED WEATHERED STEEL (ASTM A588) PANEL
16. ¾" THICK X 7'-11 ¾" WIDE X 8'-0" HEIGHT PERFORATED WEATHERED STEEL (ASTM A588) END PANEL
17. CONTINUOUS FOOTING
18. ADJACENT SURFACE, SEE PLANS
19. PERFORATED RADII VARIES, SEE NOTE 10



SECTION A-A

NOTES:

1. SUBMIT COMPLETE SHOP DRAWINGS SHOWING FABRICATION, MATERIALS, INSTALLATION DETAILS, DIMENSIONS, FONTS / LETTERING, FINISHES, ACCESSORIES, JOINTS, WELDS, ANCHORAGE, GRAPHIC SYMBOLS, COLORS AND OTHER APPURTENANCES REQUIRED FOR A COMPLETE SCREEN WALL INSTALLATION TO THE ENGINEER FOR REVIEW AND APPROVAL. SHOP DRAWINGS SHALL BE APPROVED PRIOR TO FABRICATION.
2. COORDINATE AND FIELD VERIFY SIGN LOCATION AND ORIENTATION WITH THE ENGINEER PRIOR TO FABRICATION AND INSTALLATION. VERIFY FIELD CONDITIONS AND MEASUREMENTS BEFORE FABRICATION AND INSTALLATION. VERIFY UTILITY LINES IN THE AREA PROPOSED FOR THE SIGN INSTALLATION. ANY DAMAGE DURING INSTALLATION OF SIGN TO UTILITIES WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR AT NO ADDITIONAL COST.
3. SHOP FABRICATE AND PRE-ASSEMBLE SCREEN WALL.
4. ALL STEEL COMPONENTS TO BE EXTERIOR RATED. ALL HARDWARE TO BE STAINLESS STEEL.
5. ALL EXPOSED HARDWARE TO BE TACIT WELDED ON NON-EXPOSED SIDE FOR VANDAL RESISTANCE OR OTHER METHOD APPROVED BY ENGINEER.
6. THE SCREEN WALL DETAILS ARE PROVIDED TO FORM THE BASIS OF DESIGN AND ARE PROVIDED TO ILLUSTRATE THE AESTHETIC, PERFORMANCE AND FUNCTIONAL CHARACTERISTICS ONLY. THE DIMENSIONS SHOWN ARE PROVIDED TO QUANTIFY THE FORM AND OVERALL SCALE OF THE SIGN. THE DIMENSIONS PROVIDED DO NOT INDICATED THE PRECISE SIZES OF MEMBERS OR ASSEMBLIES.
7. THE CONTRACTOR IS REQUIRED TO PROVIDE THE ENGINEERING AND STRUCTURAL DESIGN AS WELL AS ALL OTHER REQUIRED COMPONENTS IN ORDER TO PROVIDE A COMPLETE AND OPERATIONAL SCREEN WALL THAT MATCHES THE DESIGN ILLUSTRATED. MODIFICATIONS TO THE FOUNDATION, ANCHORAGES/FASTENERS, STRUCTURAL MEMBERS AND OTHER COMPONENTS MAY BE NECESSARY.
8. SCREEN WALL MUST WITHSTAND 100 MPH WIND LOADS AND MEET ALL APPLICABLE BUILDING CODES, LAWS AND REGULATIONS. THE DESIGN LOADS SHALL BE IN ACCORDANCE WITH THE INTERNATIONAL AND MICHIGAN BUILDING CODES.
9. THE CONTRACTOR IS REQUIRED TO PROVIDE THE ENGINEERING, MATERIALS, EQUIPMENT, FABRICATION, TOOLS, LABOR AND INSTALLATION OF THE SCREEN WALL INCLUDING ALL ANCHORAGES/MOUNTING ACCESSORIES, FOUNDATIONS, FITTINGS, FASTENINGS, STRUCTURAL SUPPORTS, RIGGING AND FINISHES. ALL SCREEN WALL MATERIALS SHALL BE DESIGNED AND RATED FOR EXTERIOR ENVIRONMENTS.
10. THE PERFORATED SCREEN WALL GRAPHIC SHOWN IS FOR ILLUSTRATIVE PURPOSES ONLY AND IS NOT TO BE USED FOR FABRICATION. THE FINAL PERFORATED SCREEN WALL GRAPHIC WILL BE APPROVED BY OWNER AND ENGINEER PRIOR TO FABRICATION. SHOP DRAWINGS OF FINAL PERFORATED SCREEN WALL GRAPHIC VECTORS TO BE REVIEWED AND APPROVED BY ENGINEER PRIOR TO FABRICATION.



FRONT ELEVATION

WEATHERED STEEL SCREEN WALL
NO SCALE

MISCELLANEOUS DETAILS

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12/06/2019	30%CD

Drawn By	AOF
Designer	AOF
Reviewer	DPE
Manager	KK3

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PROJECT NO.
191185

SHEET NO.
C709

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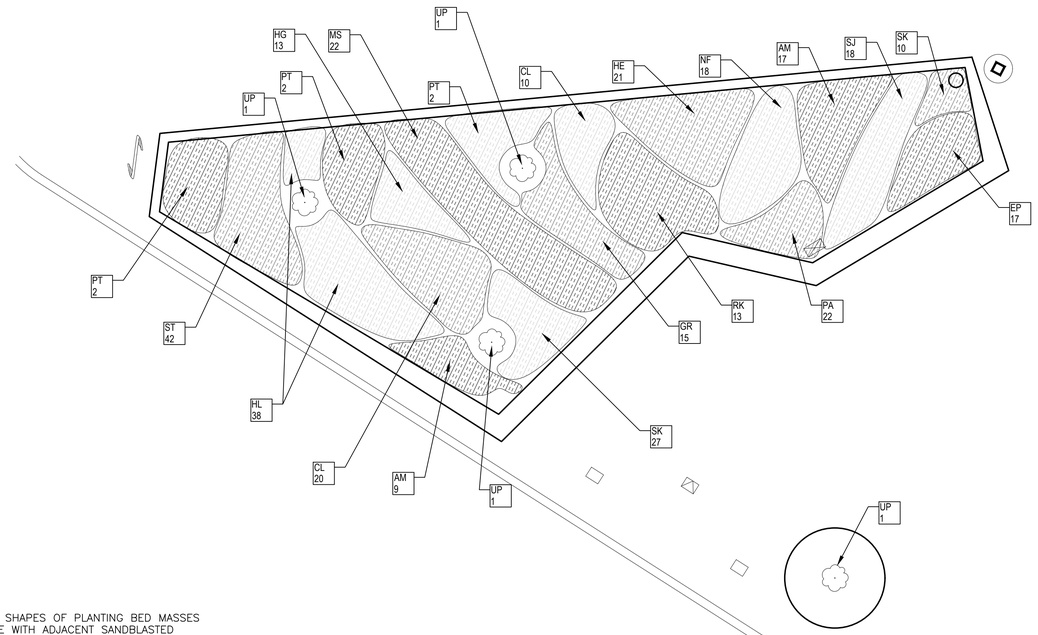

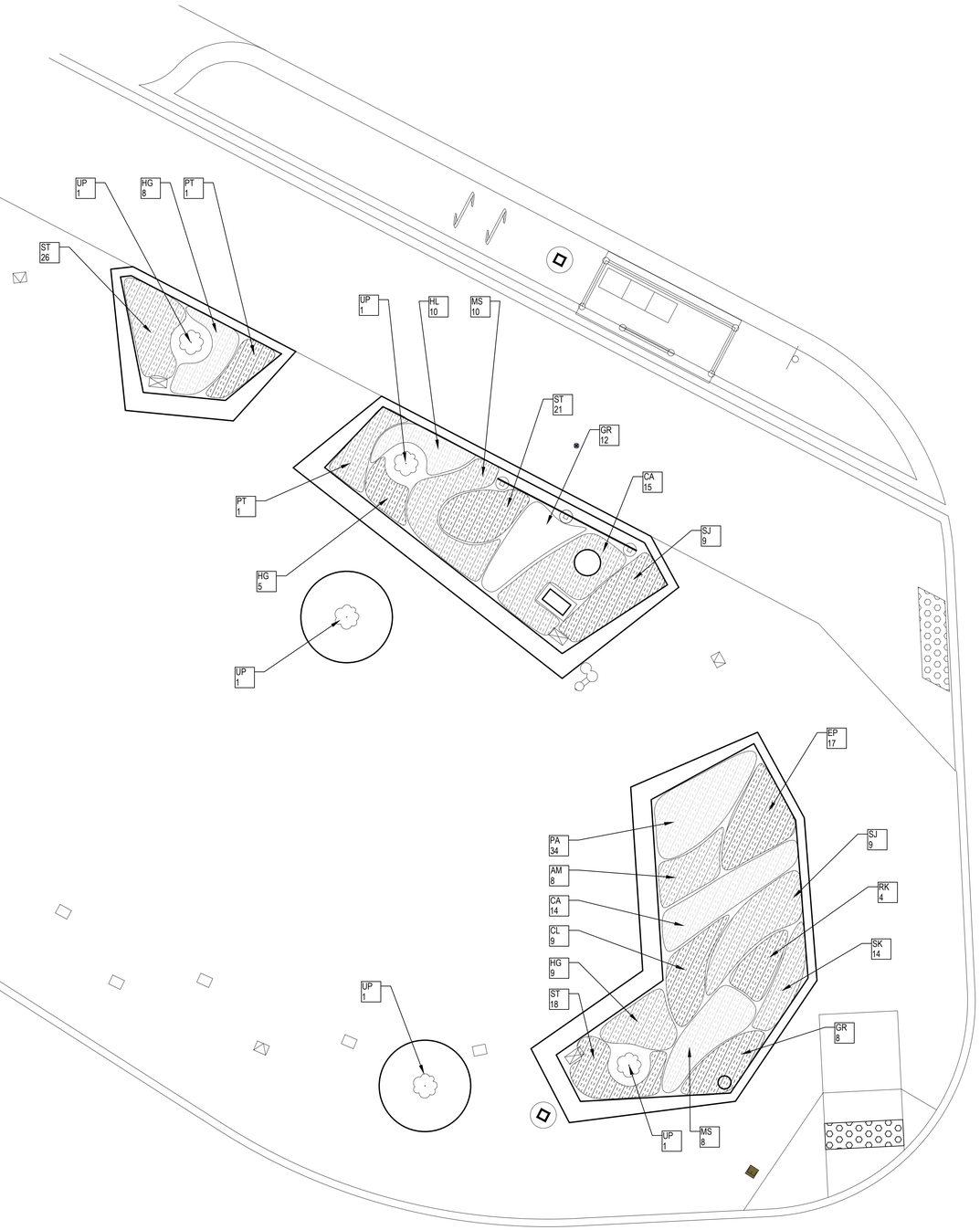

NOTES:
1) GEOMETRIC SHAPES OF PLANTING BED MASSES COORDINATE WITH ADJACENT SANDBLASTED CONCRETE SURFACE GEOMETRY.

2) PLANTING BEDS AND TREES TO BE IRRIGATED BY SPRAY HEADS, SEE SPECIFICATIONS, SUPPORTING IRRIGATION EQUIPMENT PER DWSD REQUIREMENTS.

PLANT SCHEDULE

Qty.	Abv.	Botanical Name	Common Name	Root	Size	Comments	Spacing
Deciduous Trees							
9	UP	Ulmus 'Patriot'	Patriot Elm	B&B	4" Cal.	Well formed, single central leader, 6' branching ht.	As shown
Shrubs, Perennials, Grasses & Groundcovers							
34	AM	Allium 'Millennium'	Ornamental Onion	Cont.	No. 2	Full plant, well rooted.	2'-0" o.c.
29	CA	Calamagrostis x acutiflora 'Karl Foerster'	Karl Foerster Reed Grass	Cont.	No. 2	Full plant, well rooted.	2'-0" o.c.
39	CL	Chasmanthium latifolium	Northern Sea Oats	Cont.	No. 2	Full plant, well rooted.	2'-0" o.c.
34	EP	Echinacea purpurea 'Magnus'	Purple Coneflower	Cont.	No. 2	Full plant, well rooted.	1'-6" o.c.
35	GR	Geranium 'Rozanne'	Rozanne Geranium	Cont.	No. 2	Full plant, well rooted.	2'-0" o.c.
21	HE	Hemerocallis 'Bela Lugosi'	Bella Lugosi Daylily	Cont.	No. 2	Full plant, well rooted.	2'-0" o.c.
35	HG	Hosta 'Guacamole'	Guacamole Plantain Lily	Cont.	No. 2	Full plant, well rooted.	2'-0" o.c.
48	HL	Hosta 'Liberty'	Liberty Plantain Lily	Cont.	No. 2	Full plant, well rooted.	1'-6" o.c.
40	MS	Miscanthus sinensis 'Gold Bar'	Gold Bar Maiden Grass	Cont.	No. 2	Full plant, well rooted.	3'-0" o.c.
18	NF	Nepeta x faassenii 'Walker's Low'	Walker's Low Catmint	Cont.	No. 2	Full plant, well rooted.	2'-0" o.c.
8*	PT	Pachysandra terminalis	Japanese Spurge	Flat	Clump	Clump quart, 16 per flat, *quantity represents number of flats	8" o.c.
56	PA	Perovskia atriplicifolia 'Little Spire'	Little Spire Russian Sage	Cont.	No. 1	Full plant, well rooted.	1'-0" o.c.
17	RK	Rosa 'Knock-Out'	Knock-Out Rose	Cont.	No. 3	24" spread, well rooted.	3'-0" o.c.
51	SK	Sedum kamtschaticum	Orange Stonecrop	Cont.	No. 1	Full plant, well rooted.	1'-0" o.c.
107	ST	Sedum ternatum	Three-leaved Stonecrop	Cont.	No. 1	Full plant, well rooted.	1'-0" o.c.
36	SJ	Spiraea japonica 'Little Princess'	Little Princess Spirea	Cont.	No. 3	Well-branched, min. 4 canes.	3'-0" o.c.

NORTH

LANDSCAPE PLAN

SCALE: 1" = 5'

0 2.5 5 10

PLOT INFO: Z:\2019\191185\CAD\CD\C7071191185 CD.DWG LAYOUT: L101 DATE: 4/13/2020 TIME: 7:20:06 PM USER: AOFRANZON

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02/03/2020	90%CD
12/27/2019	60%CD
12/06/2019	30%CD

Drawn By	AOF
Designer	AOF
Reviewer	DPE
Manager	KK3

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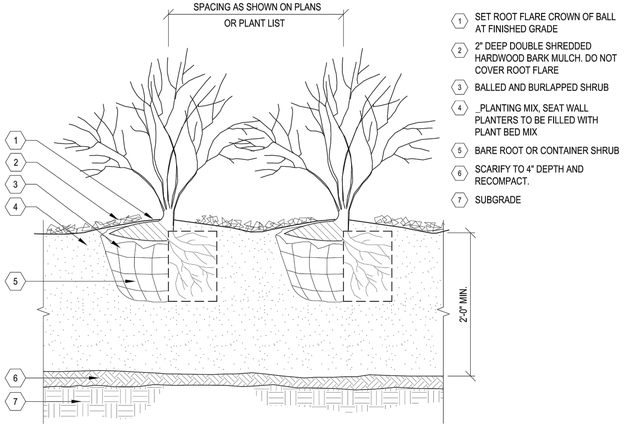
SHEET NO.
L101



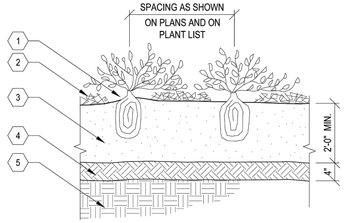
1. SET ROOT FLARE CROWN OF BALL AT FINISHED GRADE
2. 2" DEEP DOUBLE SHREDDED HARDWOOD BARK MULCH. DO NOT COVER ROOT FLARE
3. BALLED AND BURLAPPED SHRUB
4. _PLANTING MIX, SEAT WALL PLANTERS TO BE FILLED WITH PLANT BED MIX
5. BARE ROOT OR CONTAINER SHRUB
6. SCARIFY TO 4" DEPTH AND RECOMPACT.
7. SUBGRADE

NOTES:
1. REMOVE BURLAP FROM TOP 1/3 OF ROOT BALL, OR, WITH CONTAINER PLANTS, REMOVE POTS AND SEPARATE POT BOUND ROOTS AS SPECIFIED.
2. DO NOT PRUNE SHRUBS EXCEPT TO REMOVE DEAD OR BROKEN BRANCHES.

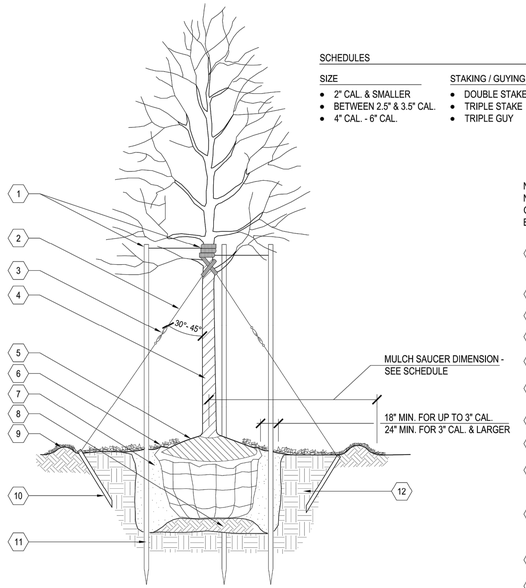
SHRUB PLANTING
NO SCALE

NOTE:
CONTAINER PLANTS: REMOVE POTS AND SEPERATE POT BOUND ROOTS AS SPECIFIED.

1. SET ROOT FLARE (COLLAR) AT FINISHED GRADE
2. 2" DEEP DOUBLE SHREDDED HARDWOOD BARK MULCH. DO NOT COVER ROOT FLARE
3. _PLANTING MIX, SEAT WALL PLANTERS TO BE FILLED WITH PLANT BED MIX
4. SCARIFY TO 4" DEPTH AND RECOMPACT
5. SUBGRADE



PERRENIAL AND GROUNDCOVER PLANTING
NO SCALE



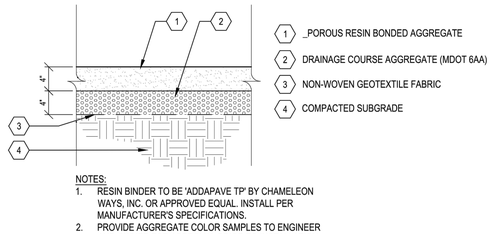
SCHEDULES

SIZE	STAKING / GUYING	MULCH SAUCER DIMENSION (NON-BED AREAS)
• 2" CAL. & SMALLER • BETWEEN 2.5" & 3.5" CAL. • 4" CAL. - 6" CAL.	• DOUBLE STAKE • TRIPLE STAKE • TRIPLE GUY	• 4' DIA. • 5' DIA. • MIN. 8' DIA.- EXTEND OUTSIDE DIAMETER TO INCLUDE GUYING STAKES

NOTES:
NEWER CUT CENTRAL LEADERS PRUNE ONLY TO REMOVE DEAD OR DAMAGED BRANCHES.

1. TOP OF STAKES AND GUYS TO BE SET ABOVE FIRST BRANCHES. SET STAKES VERTICAL AND AT SAME HEIGHT
2. GUYING CABLE 3 GUYS PER TREE
3. TURNBUCKLE
4. TREE WRAP
5. REMOVE BURLAP FROM TOP 1/3 OF ROOT BALL
6. 2" DEEP DOUBLE SHREDDED HARDWOOD BARK MULCH. DO NOT COVER ROOT FLARE
7. _PLANTING MIX
8. COMPACTED _PLANTING MIX
9. MOUND _PLANTING MIX TO FORM SAUCER AROUND PLANT PIT. SET SAUCER OUTSIDE OF GUY STAKES
10. 2x4 WOOD OR #3/LF METAL FENCE POST ANCHOR STAKE TO BE DRIVEN BELOW FINISH GRADE. MIN. LENGTH TO BE 24"
11. STAKES TO EXTEND 12" BELOW TREE PIT IN UNDISTURBED GROUND
12. SEAT WALL PLANTERS TO BE FILLED WITH _PLANTING MIX

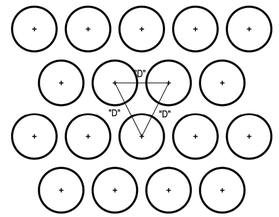
_DECIDUOUS SHADE TREE
NO SCALE



1. _POROUS RESIN BONDED AGGREGATE
2. DRAINAGE COURSE AGGREGATE (MDOT 6AA)
3. NON-WOVEN GEOTEXTILE FABRIC
4. COMPACTED SUBGRADE

NOTES:
1. RESIN BINDER TO BE 'ADDAPAVE TP' BY CHAMELEON WAYS, INC. OR APPROVED EQUAL. INSTALL PER MANUFACTURER'S SPECIFICATIONS.
2. PROVIDE AGGREGATE COLOR SAMPLES TO ENGINEER AND OWNER FOR APPROVAL PRIOR TO INSTALLATION.

_POROUS RESIN BONDED AGGREGATE
NO SCALE



D=DIMENSION OF PLANT SPACING
(SHRUB, GROUNDCOVER OR PERENNIAL)
AS INDICATED ON PLANS AND PLANTING SCHEDULE.

TYPICAL PLANT SPACING
1"=1'

MISCELLANEOUS DETAILS

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04/01/2020| 100% CD
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Drawn By	AOF
Designer	AOF
Reviewer	DPE
Manager	KK3

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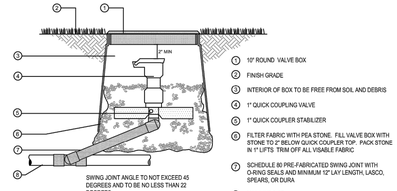
PROJECT NO.
191185

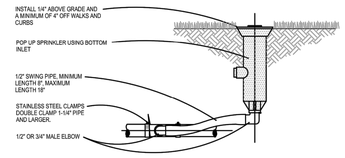
SHEET NO.
L102

PLOT INFO: Z:\2019\191185\CAD\CD\C70B\191185 CD.DWG LAYOUT: L102 DATE: 4/13/2020 TIME: 7:20:37 PM USER: AOFRANZON

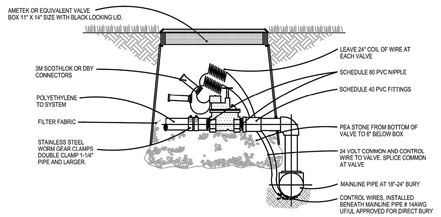


1. 10" ROUND VALVE BOX
2. FINISH GRADE
3. INTERIOR OF BOX TO BE FREE FROM SOIL AND DEBRIS
4. 1" QUICK COUPLING VALVE
5. 1" QUICK COUPLER STABILIZER
6. FILTER FABRIC WITH PEA STONE. FILL VALVE BOX WITH STONE TO 2" BELOW QUICK COUPLER TOP. PACK STONE IN 1" LIFTS. TRIM OFF ALL VISABLE FABRIC
7. SCHEDULE 80 PRE-FABRICATED SWING JOINT WITH O-RING SEALS AND MINIMUM 12" LAY LENGTH, LASCO, SPEARS, OR DURA.
8. MAINLINE PIPE.

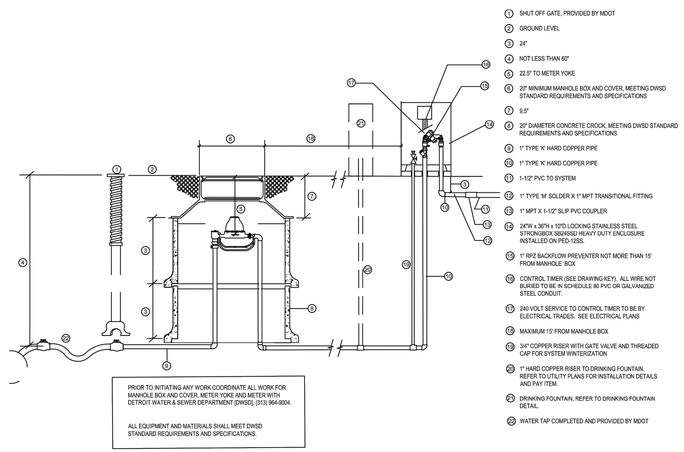
1 THREE ELBOW SWING JOINT – QUICK COUPLING VALVE
N.T.S.



2 TWO ELBOW SWING JOINT – QUICK COUPLING VALVE (1/2" AND 3/4" IPS SPRINKLERS)
N.T.S.



3 AUTOMATIC CONTROL VALVE
N.T.S.



1. SHUT OFF GATE, PROVIDED BY MDOT
2. GROUND LEVEL
3. 24"
4. NOT LESS THAN 60"
5. 22.5° TO METER YOKE
6. 20" MINIMUM MANHOLE BOX AND COVER, MEETING DWSD STANDARD REQUIREMENTS AND SPECIFICATIONS
7. 9.5'
8. 20" DIAMETER CONCRETE CROCK, MEETING DWSD STANDARD REQUIREMENTS AND SPECIFICATIONS
9. 1" TYPE 'K' HARD COPPER PIPE
10. 1" TYPE 'K' HARD COPPER PIPE
11. 1-1/2" PVC TO SYSTEM
12. 1" TYPE 'M' SOLDER X 1" MPT TRANSITIONAL FITTING
13. 1" MPT X 1-1/2" SLIP PVC COUPLER
14. 24"W x 36"H x 10"D LOCKING STAINLESS STEEL STRONGBOX SB2436SD HEAVY DUTY ENCLOSURE INSTALLED ON PED-12SS.
15. 1" RPZ BACKFLOW PREVENTER NOT MORE THAN 15' FROM MANHOLE BOX
16. CONTROL TIMER (SEE DRAWING KEY). ALL WIRE NOT BURIED TO BE IN SCHEDULE 80 PVC OR GALVANIZED STEEL CONDUIT.
17. 240 VOLT SERVICE TO CONTROL TIMER TO BE BY ELECTRICAL TRADES. SEE ELECTRICAL PLANS
18. MAXIMUM 15' FROM MANHOLE BOX
19. 3/4" COPPER RISER WITH GATE VALVE AND THREADED CAP FOR SYSTEM WINTERIZATION
20. 1" HARD COPPER RISER TO DRINKING FOUNTAIN. REFER TO UTILITY PLANS FOR INSTALLATION DETAILS AND PAY ITEM.
21. DRINKING FOUNTAIN, REFER TO DRINKING FOUNTAIN DETAIL.
22. WATER TAP COMPLETED AND PROVIDED BY MDOT

4 WATERSOURCE DETAIL–SCHEMATIC
N.T.S.

IRRIGRATION
NO SCALE

MISCELLANEOUS DETAILS

fishbeck
Engineers | Architects | Scientists | Constructors

SMITHGROUP
500 GRISWOLD
SUITE 1700
DETROIT, MI 48266
313.983.3600
www.smithgroup.com

CITY OF DETROIT

City of Detroit

Puritan Grand Parklet Streetscape

REVISIONS

04/14/2020	100%CD
04/01/2020	100%CD
03/04/2020	95%CD
01/24/2020	90%CD
12/27/2019	60%CD
12/06/2019	30%CD

Drawn By	AOF
Designer	AOF
Reviewer	DPE
Manager	KK3

Hard copy is intended to be 24"x36" when plotted. Scale(s) indicated and graphic quality may not be accurate for any other size.

PROJECT NO.
191185

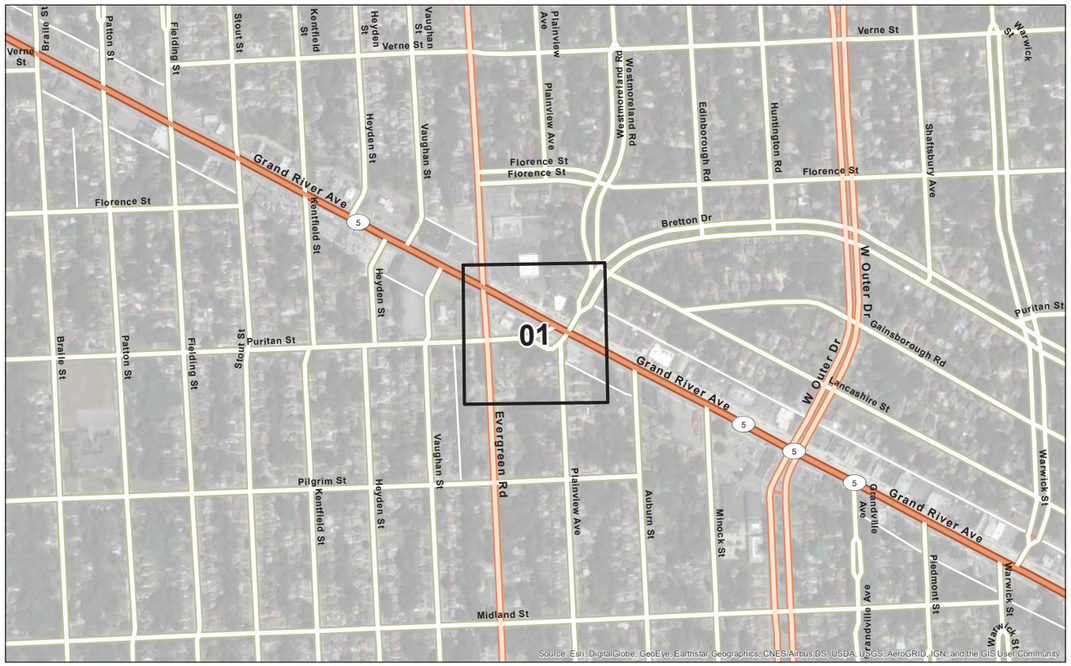
SHEET NO.
L103

PLOT INFO: Z:\2019\191185\CAD\CDC\7091191185 CD.DWG LAYOUT: L103 DATE: 4/13/2020 TIME: 7:20:59 PM USER: AOFRANZON

PUBLIC LIGHTING AUTHORITY OF DETROIT

CITY OF DETROIT, WAYNE COUNTY, MICHIGAN
CONSTRUCTION PLANS FOR GRAND RIVER PARKLET STREET LIGHTING - 48219
STREETSCAPE PROJECT

PLAN SHEET INDEX



SHEET INDEX

PROJECT LOCATION MAP

PLA - GRAND PARKLET STREET - PROJECT ESTIMATE

CONSTRUCTION QUANTITIES

MDOT CODE	DESCRIPTION	SHEET	CON-01	TOTAL	UOM
8190032	_Conduit, DB, 1, 3 inch		353	353	Ft
8190490	_Wood Pole, Fit Up, Metered Sec Elec Serv		1	1	Ea
8190495	_Wood Pole, Fit Up, Sec Cable Pole		1	1	Ea
8197001	_Cable, Equipment Grounding Wire, 1/C#6, Cu		177	177	Ft
8190236	_Cable, Sec, 600V, 2, 1/C#6, Cu		177	177	Ft
8190406	_Cable, Sec, 600V, 3, 1/C#1, Modified		352	352	Ft
8197050	_Hh, Polymer Conc, Modified		1	1	Ea
8197050	_Light Std Fdn, Modified		2	2	Ea
8197050	_Light Std, Grand River Decorative, Install		2	2	Ea
8197050	_Luminaire, 150W, Install		2	2	Ea

N W E S

REVISION

REV #	DATE	DESCRIPTION
01	3/4/2020	Revised conduit callouts.
02	3/30/2020	Revised conduit callouts.

METRO ENGINEERING SOLUTIONS
2021 S. SCHAEFER HWY.
DETROIT, MICHIGAN 48217
PHONE: 734.483.1427 FAX: 734.483.3431
www.metroes.net

PLA STREETLIGHTING			
MES JOB #:	1036-20-1071	DRAWN BY:	RYAN JALYNSKI
PLOT SCALE:	NOT TO SCALE	CHECKED BY:	BRENDAN MULLANE
PLOT DATE:	4/1/2020	DATE:	4/1/2020

PUBLIC LIGHTING AUTHORITY OF DETROIT

PLA STREETLIGHTING
GRAND RIVER PARKLET
CITY OF DETROIT
WAYNE COUNTY, MI

GRAPHIC SCALE
NOT TO SCALE

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

SHEET INFORMATION

COVER

TOTAL SHEETS	SHEET NO.
01	01

GENERAL INFORMATION

1. ALL MATERIAL AND EQUIPMENT FURNISHED BY THE CONTRACTOR MUST BE NEW AND MUST COMPLY WITH THE SPECIFICATIONS FOR THAT MATERIAL AND EQUIPMENT. THE OWNER SHALL HAVE THE RIGHT TO REJECT ANY EQUIPMENT WHICH DOES NOT MEET WITH SPECIFICATIONS.

2. CONSTRUCTION MUST BE PERFORMED BY QUALIFIED AND EXPERIENCED PERSONNEL. ALL WORK MUST MEET THE STANDARDS AND PRACTICES OF THE PUBLIC LIGHTING AUTHORITY (PLA), THE NATIONAL ELECTRICAL CODE, THE ELECTRIC CODE OF THE CITY OF DETROIT AND THE NATIONAL ELECTRICAL SAFETY CODE.

3. THE CONTRACTOR MUST USE PUBLIC LIGHTING AUTHORITY (PLA) SPECIFICATIONS FOR THIS PROJECT.
4. THE CONSTRUCTION CONTRACTOR SHALL RETURN ALL SALVAGED PUBLIC LIGHTING AUTHORITY (PLA) EQUIPMENT TO THE PLA.

   LOCATION: 1135 BEAUFAIT STREET, DETROIT, MICHIGAN 48207
   CONTACT: MELANIE STEELE (STATELINE) AT (313) 909-7509 AND
   JOHN VERNON (PLA) AT (313) 324-8290
   HOURS: MONDAY FRIDAY FROM 9:30 A.M. TO 3:30 P.M. MUST PROVIDE 48 HOURS NOTICE.

   THE CONSTRUCTION CONTRACTOR IS RESPONSIBLE FOR TRANSPORTING ALL SALVAGED EQUIPMENT TO THE PLA YARD.

5. THE CONSTRUCTION CONTRACTOR SHALL RETURN ALL REMOVED DETROIT PUBLIC LIGHTING DEPARTMENT (PLD) EQUIPMENT TO THE PLD.

   THE CONSTRUCTION CONTRACTOR IS RESPONSIBLE FOR TRANSPORTING DECOMMISSIONED EQUIPMENT TO THE PLD YARD.

6. ALL SHOP DRAWINGS MUST BE APPROVED BY THE PUBLIC LIGHTING AUTHORITY (PLA). CONTACT (313) 324-8290.

7. CALL MISS DIG AT 811 OR (800) 482-7171 A FULL THREE WORKING DAYS BEFORE TO ANY EXCAVATION FOR THE LOCATIONS OF UNDERGROUND UTILITIES.

8. THE CONTRACTOR IS TO NOTIFY DTE GAS AT (800) 477-4747 IF A PROTECTIVE COATED GAS MAIN IS EXPOSED OR DAMAGED.

9. THE CONTRACTOR IS TO NOTIFY DTE ELECTRIC AT (800) 477-4747 IF THE PROTECTIVE COATING OF ANY DTE ELECTRIC HIGH VOLTAGE UNDERGROUND LINE IS EXPOSED OR DAMAGED.

10. ALL EXISTING DETROIT PUBLIC LIGHTING DEPARTMENT (PLD) LIGHTING, PRIMARY TRANSMISSION, ETC., CIRCUITS MUST ALWAYS BE MAINTAINED IN AN OPERATIONAL CONDITION. NOTIFY THE PLD SYSTEM OPERATOR AT (313) 961-1364 48 HOURS BEFORE TO BEGINNING WORK ON PLD CIRCUITS AND KEEP THE OPERATOR INFORMED DAILY.

11. ALL VEHICLE DIRECTION, STREET NAME, AND PARKING SIGNS ON CITY OF DETROIT ROADS ARE THE PROPERTY OF THE CITY OF DETROIT DEPARTMENT OF PUBLIC WORKS (DPW). THE CONTRACTOR WILL NOT REMOVE OR RELOCATE ANY VEHICLE DIRECTION, STREET NAME OR PARKING SIGNS UNLESS CITY OF DETROIT DPW GRANTS ADVANCE AUTHORIZATION. FOR ANY VEHICLE DIRECTION, STREET NAME OR PARKING SIGN ENCOUNTERED ON A STREET LIGHT POLE, THE CONTRACTOR WILL STOP WORK AND CALL THE DETROIT DPW SIGN SHOP AT (313) 224-6950 TO COORDINATE 72 HOURS PRIOR TO THE REMOVAL OR RELOCATION.

12. ANY PERMANENT SIGNS THAT ARE DAMAGED OR REMOVED MUST EITHER BE REINSTALLED, IF IN USABLE CONDITION, OR REPLACED WITH A UNIT THAT MEETS THE CURRENT SPECIFICATIONS OF THE SIGN'S MAINTAINING AGENCY.

13. REMOVAL, REPLACEMENT, EXCAVATION, AND BACKFILL RELATED TO PAVEMENT, SIDEWALKS AND CURBS MUST BE DONE ACCORDING TO THE CITY OF DETROIT, DEPARTMENT OF PUBLIC WORKS, CITY ENGINEERING DIVISION STANDARD SPECIFICATIONS FOR PAVING AND RELATED CONSTRUCTION OR THE SPECIFICATION OF THE AUTHORITY HAVING JURISDICTION.

14. WITHIN FIVE DAYS OF COMPLETING EACH SECTION OF THE UNDERGROUND OR OVERHEAD WORK, THE CONTRACTOR SHALL FURNISH TO THE PUBLIC LIGHTING AUTHORITY (PLA) AN EXACT RECORD, AS-BUILT DRAWINGS, OF ALL UNDERGROUND AND OVERHEAD WORK INSTALLED. THE AS-BUILT DRAWINGS SHALL INCLUDE, BUT NOT LIMITED TO, STREET LIGHTING COMPONENTS, STRUCTURES, CONDUIT LENGTHS AND CABLE ROUTING INCLUDING THEIR LOCATIONS.

15. THE CONTRACT UNIT PRICE SHALL BE PAYMENT IN FULL FOR FOUNDATION REMOVAL AND BACKFILLING THE HOLE WITH GRANULAR MATERIAL. DISPOSAL OF WASTE EXCAVATED MATERIAL ALONG WITH REMOVING PAVEMENT, SIDEWALK, CURB AND GUTTER ALONG WITH ANY ASSOCIATED REPLACEMENT IS ALSO INCLUDED.

16. THE CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS COVERING CONSTRUCTION OPERATIONS INCLUDING PERMITS FROM THE PUBLIC AUTHORITIES HAVING JURISDICTION OVER THE STREETS OR OTHER PUBLIC PROPERTIES IN WHICH THE WORK IS LOCATED AND THE IMPROVEMENT THEREIN. THE BIDDER SHALL ASCERTAIN THE AMOUNT OF ANY CHARGES REQUIRED BY SUCH AUTHORITIES AND WILL INCLUDE THE COST THEREOF IN THE BID PRICES.

17. THE CONTRACTOR MUST ASCERTAIN THE REQUIREMENTS OF THE PUBLIC AUTHORITIES HAVING JURISDICTION OVER THE STREETS OR OTHER PUBLIC PROPERTIES; OR THE PRIVATE PROPERTY OWNER AND INCLUDE IN HIS BID PRICE ALL EXISTING INFRASTRUCTURE RESTORATION COSTS INCLUDING SIDEWALKS, PAVEMENT AND LANDSCAPING TO THE SATISFACTION OF THE AUTHORITY HAVING JURISDICTION OR PROPERTY OWNER IN EACH CASE, WHICH MAY INCLUDE UPGRADES FROM THE EXISTING CONDITION.

18. THE CONTRACTOR ASSUMES ALL RISKS AND RESPONSIBILITIES BECAUSE OF EXISTING SOIL CONDITIONS AND MUST COMPLETE THE WORK IN WHATEVER MATERIAL AND UNDER WHATEVER GROUND CONDITIONS MAY BE ENCOUNTERED OR CREATED WITHOUT ADDITIONAL COST TO THE PUBLIC LIGHTING AUTHORITY (PLA).

19. THE LOCATIONS OF EXISTING UNDERGROUND OBSTRUCTIONS OR UTILITY FACILITIES ARE NOT NECESSARILY INDICATED ON THE PLANS. WHERE UTILITY FACILITIES ARE SHOWN, LOCATIONS ARE ONLY APPROXIMATIONS. CORRECTNESS OF EXACT UTILITY LOCATIONS IS NOT GUARANTEED. THE CONTRACTOR MUST EXERCISE CAUTION IN AVOIDING DAMAGE TO UTILITIES AND MUST NOTIFY THE UTILITIES THAT THEY ARE PROPOSING TO BREAK PAVEMENT OR EXCAVATE SO THAT THEY MAY PROVIDE THE CONTRACTOR WITH THE VERY LATEST LOCATION INFORMATION OF THEIR EXISTING FACILITIES.

20. HANDHOLE AND MANHOLE STRUCTURE LOCATIONS ARE SHOWN IN PROXIMITY TO WHERE THEY ARE TO BE INSTALLED. STRUCTURES ARE NOT TO BE INSTALLED IN ADA RAMPS. STRUCTURE INSTALLATION IN SIDEWALKS, ROADWAYS OR DRIVEWAYS IS TO BE AVOIDED WHERE POSSIBLE UNLESS CALLED FOR BY THE PLANS. STRUCTURES INSTALLED IN ROADWAYS OR DRIVEWAYS SHALL BE OF THE PRECAST CONCRETE TYPE. STRUCTURES SHALL NOT BE INSTALLED ON PRIVATE PROPERTY UNLESS CALLED FOR SPECIFICALLY BY THE PLANS WITH AN AUTHORIZED EASEMENT. FURTHER, STRUCTURES ARE TO BE INSTALLED CLEAR OF FIRE HYDRANTS, TREES, UTILITIES, AND ANY OTHER UNDERGROUND STRUCTURES.

21. NO SPLICING WILL BE ALLOWED BETWEEN THE CONTROL CABINET AND HANDHOLE/MANHOLE; HANDHOLE/MANHOLE TO HANDHOLE/MANHOLE; HANDHOLE/MANHOLE TO UNDERGROUND STREET LIGHTING STANDARD; AND HANDHOLE/MANHOLE TO CABLE RISER.

22. THE FOLLOWING WIRE COLOR CODING IS TO BE USED FOR THE UNDERGROUND STREET LIGHTING AND RECEPTACLES ON THIS PROJECT: BLACK (A PHASE); RED (B PHASE); WHITE (NEUTRAL); GREEN (GROUND).

23. THE FOLLOWING CABLE IDENTIFICATION IS TO BE USED FOR GROUNDED OVERHEAD TRIPLEX AND QUADRUPLEX ON THIS PROJECT: NO RIB (A PHASE); ONE RIB (NEUTRAL); TWO RIBS (B PHASE); BARE MESSENGER (EQUIPMENT GROUNDING CONDUCTOR OR EGC).

    THE CABLE IDENTIFICATION FOR INSTANCES OF EXISTING UNGROUNDED OVERHEAD DUPLEX OR TRIPLEX ALONG WITH CONNECTIONS TO THE EXISTING UNGROUNDED OVERHEAD ON THIS PROJECT: NO RIB (A PHASE); ONE RIB (B PHASE); BARE MESSENGER (NEUTRAL).

    IF ANY EXISTING OVERHEAD CABLE DOES NOT MATCH EITHER OF THESE SCENARIOS, CONTACT THE PROJECT ENGINEER BEFORE MAKING ANY CONNECTIONS.

24. THE CONTRACTOR MUST CORE INTO PRECAST HANDHOLES AND MANHOLES.

25. THE CONTRACTOR IS TO TRIM EXISTING TREES TO PROVIDE A CLEAR 10 FOOT RADIUS AROUND EACH LUMINAIRE.

26. ALL UNDERGROUND STREET LIGHTING STANDARD LOCATIONS ARE TO BE INSTALLED WITH THE CENTER 3 FEET BACK OF CURB FACE (BOC) UNLESS OTHERWISE INDICATED ON THE PLANS.

27. THE CONTRACTOR IS TO CALL THE DETROIT PUBLIC LIGHTING DEPARTMENT (PLD) SENIOR SYSTEM OPERATOR AT (313) 267-4151 FOR ANY PLD FACILITIES COORDINATION. COORDINATION INCLUDES BEING GRANTED ACCESS TO PLD MANHOLES AND HANDHOLES; GAINING LOCKOUT/TAGOUT PROTECTION FOR WORKING ON PLD EQUIPMENT; ANY OTHER WORK INVOLVING PLD FACILITIES.

28. THE CONTRACTOR IS TO CALL (313) 224-1610 FOR COORDINATING ANY DETROIT DEPARTMENT OF PUBLIC WORKS TRAFFIC SIGNAL WORK.

29. LUMINAIRE WOOD POLE MOUNTING HEIGHT SHALL BE AT 30 FEET UNLESS THE PLANS SPECIFY OTHERWISE.

30. REPLACEMENT LUMINAIRE LOCATIONS SHALL BE CONNECTED TO THE SAME CIRCUIT PHASE OF THE LUMINAIRE LOCATION THEY ARE REPLACING. NEW LUMINAIRE LOCATIONS WILL BE CONNECTED TO THE CIRCUIT PHASE CALLED FOR ON THE PLAN SHEETS.

31. INSTALL SHORTING CAPS ON ALL LUMINAIRES UNLESS OTHERWISE DIRECTED BY THE PLANS.

32. REFER TO THE STREETSCAPE PAVING PLANS FOR UNDERGROUND UTILITY LOCATIONS.

REVISION		
REV #	DATE	DESCRIPTION
01		
02		

METRO ENGINEERING SOLUTIONS
2021 S. SCHAEFER HWY.
DETROIT, MICHIGAN 48217
PHONE: 734.483.1427 FAX: 734.483.3431
www.metroes.net

PLA STREETLIGHTING			
MES JOB #:	1036-20-1071	DRAWN BY:	RYAN JALYNSKI
PLOT SCALE:	NOT TO SCALE	CHECKED BY:	BRENDAN MULLANE
PLOT DATE:	2/3/2020	DATE:	2/3/2020

PUBLIC LIGHTING AUTHORITY OF DETROIT

PLA STREETLIGHTING
GRAND RIVER PARKLET
CITY OF DETROIT
WAYNE COUNTY, MI

GRAPHIC SCALE
NOT TO SCALE

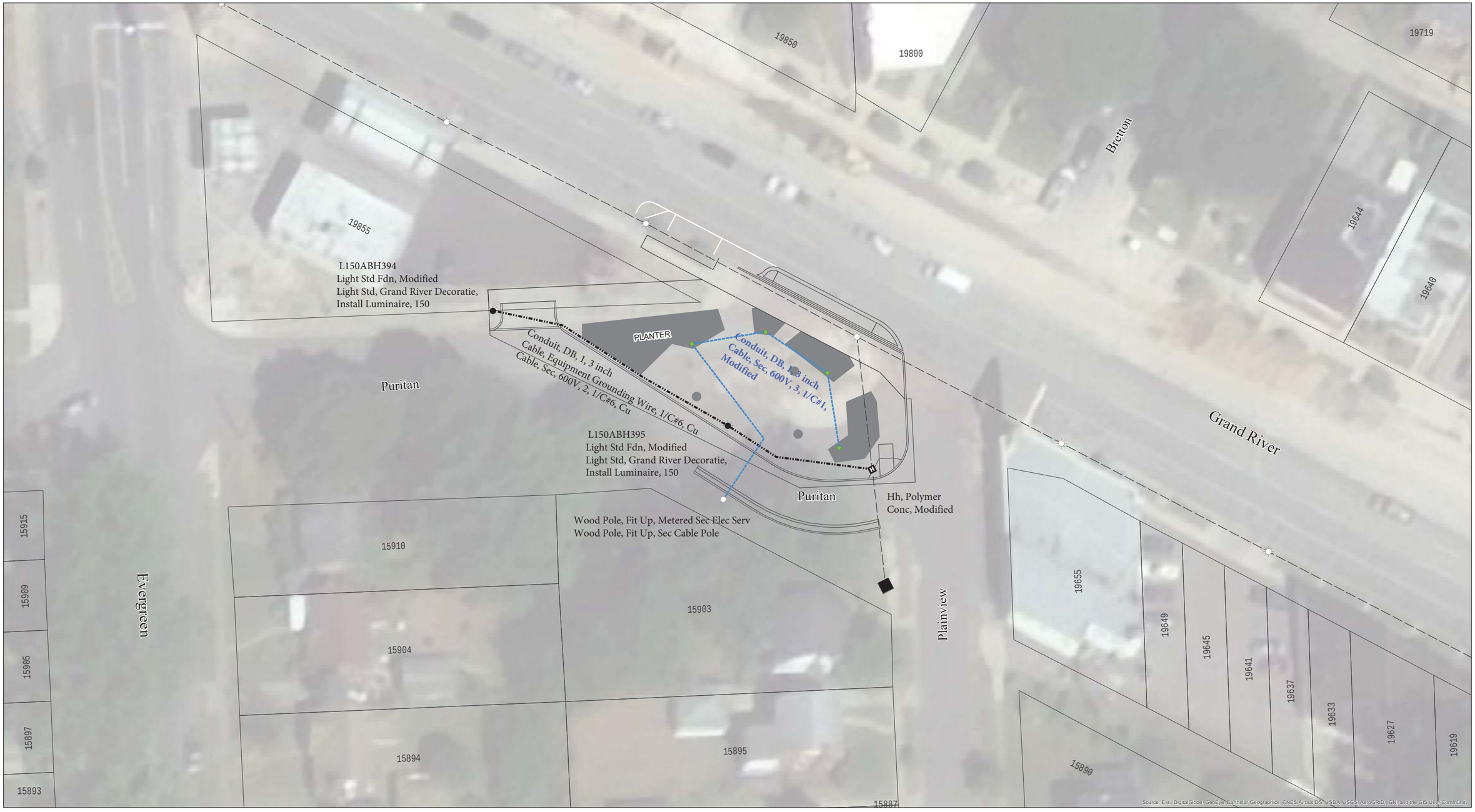
811 Know what's below. Call before you dig.

SHEET INFORMATION

GI-01

TOTAL SHEETS	SHEET NO.
34	02

C:\Users\rjalynski\Desktop\PLADETAIL.mxd



Legend

✕	REMOVAL	○	Pole	H	NHH	☼	EXISTING LIGHT	●	GFI
✹	NLL	◆	LC	▬▪▬▪▬	NEW CONDUIT	– — —	Existing Conduit	▬▬▬	GFI CONDUIT

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

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

N W E S

REVISION		
REV #	DATE	DESCRIPTION
01	3/4/2020	Revised conduit callouts.
02	3/30/2020	Revised conduit callouts.

METRO ENGINEERING SOLUTIONS
2021 S. SCHAEFER HWY.
DETROIT, MICHIGAN 48217
PHONE: 734.483.1427 FAX: 734.483.3431
www.metroes.net

PLA STREETLIGHTING			
MES JOB #:	1036-20-1071	DRAWN BY:	RYAN JALYNSKI
PLOT SCALE:	1 inch = 20 feet	CHECKED BY:	BRENDAN MULLANE
PLOT DATE:	4/1/2020	DATE:	4/1/2020

PUBLIC LIGHTING AUTHORITY OF DETROIT

PLA STREETLIGHTING
GRAND RIVER PARKLET
CITY OF DETROIT
WAYNE COUNTY, MI

GRAPHIC SCALE
0 20 40
1 inch - 20 feet
(11"x17" 1 inch = 40 feet)

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

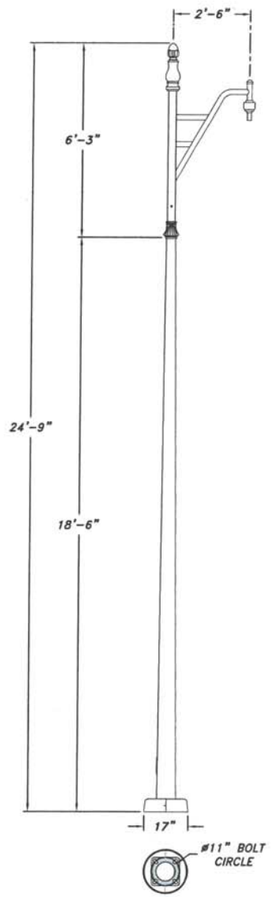
SHEET INFORMATION

CON-01

TOTAL SHEETS	SHEET NO.
01	01

$850 Each with Cree Cobrahead, $1715 each with King Teardrop
(Price is neighborhoods cost after PLA's contribution.)

STEEL SERIES



SCALE: 1/4"=1'-0"

Catalog Name:
SS-11-TSS-18.5-MT-1

Revision #: 0 Date: 06.03.14 Page: 1 of 2

Revision History: N/A

Niland Approval: Luis M. Gomez Customer Approval:

CSI POLE SPECIFICATION

I. BASE

Base shall be cast aluminum. Aluminum shall be certified as pure 356 copper free of any porosity, foreign materials or cosmetic fillers. Base casting shall be of uniform wall thickness with no warping or mold shifting. Minimum wall thickness shall be .250". The base casting shall be a clam shell and shall wrap around the pole to cover the bolt plate. Cast aluminum access cover shall be secured with two stainless steel screws. There are no exterior welds to finish.

II. POLE

Post shall be tapered smooth steel pole with reinforced 2¾"x 16"H. tenon for crossarm mounting. Shaft extrusion shall be of uniform wall thickness with no warping or mold shifting. Minimum wall thickness shall be 11 gauge (1/8"). There are no exterior welds to finish. A bolt plate shall be welded on bottom of the extrusion. The anchor bolt plate locationed at the base shall be welded in place as part of the pole extrusion, for maximum strength.

III. CROSSARM

Arm shall be cast aluminum construction with a threaded adapter for luminaire mounting.

IV. FINISH

Fixture finish shall consist of degreasing, phoshate acid etching with 140°+ de-ionizing water, rinsed, oven dryoff and top coated with a thermoset TGIC super polyester powder coat finish designed not to chalk or fade for many years. All Niland Company powders must pass a minimum 3000-hour salt spray test for corrosion resistance.

V. ANCHORAGE DETAIL

Post base requires (4) ø1"x36" hot dip galvanized L-type anchor bolts with 3" maximum projection each.

FINISHES

Five Year Powder Coating Warranty

Niland Company factory-applied powder coatings are warranted against peeling, excessive fading and cracking under normal climatic exposure for a period of five years from date of shipment. Damage to finish coating caused by abuse or mishandling during installation is not covered by warranty. This warranty is limited to the repair or replacement of the material involved and does not included reimbursement of consequential expenses such as installation or removal of equipement or transportation costs.

I. STANDARD FINISH

Satin iron achieved by rotary sanding, blasting and phosphate conversion coating.

II. THERMOSET POWDER PAINT FINISH

Pretreatment shall consist of degreasing phosphate acid-etching with 140° and de-ionizing water, rinsed and oven dried.

FINISH COAT

Thermoset TGIC super polyester powder coat finish electrostatically applied, oven cured and bonded at approximately 420° F to a minimum dry film thickness of 1.5 mils. All Niland powders must pass a minumum 3000-hour salt-spray test for corrosion resistance. The National Association of Architectural Metal Manufacturers, Metal Finishes Manual rates the outdoor life of these powders at 15-plus years.

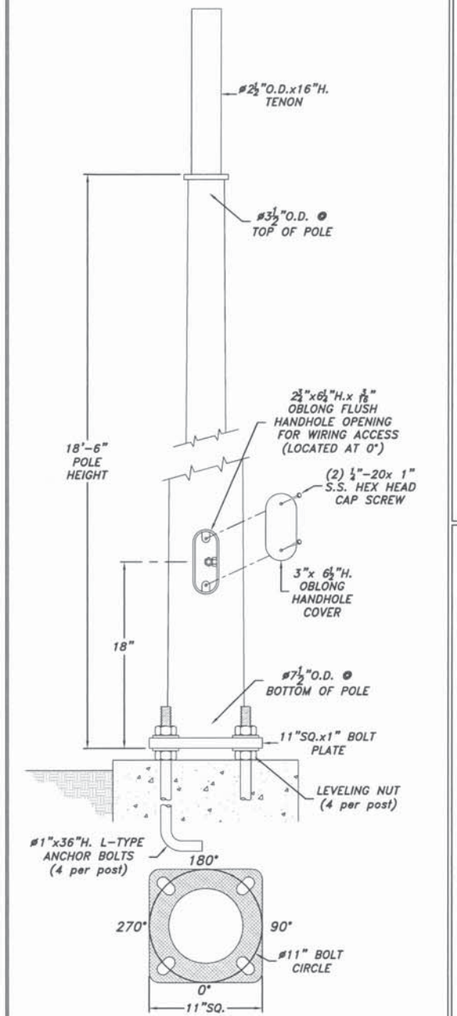
III. LIQUID FINISH

Optional liquid finish is first prime coated then finished with a two part liquid epoxy coat.

WARRANTY

Niland Company warrants to repair or replace, at our option, any equipment that fails due to defects in material or workmanship within one year from date of shipment. This warranty does not include failures as a result of improper installation, mishandling or misapplication. This guarantee is limited to repair or replacement only and does not include reimbursement for expense of installation, removal of equipment, transportation or any other expenses that may be incurred. Authorization must be obtained from Niland Company in Escondido, CA before any material is returned.

Niland Company
NILAND COMPANY • PH: (915) 779-1405 • FAX: (915) 779-3618 • E-MAIL: INFO@NILANDCO.COM
320 N. Clark El Paso, Tx 79905 • PH: 800-848-9013 • FAX: 888-779-3065 • WEB PAGE: HTTP://www.nilandco.com



SCALE: 1"=1'-0"

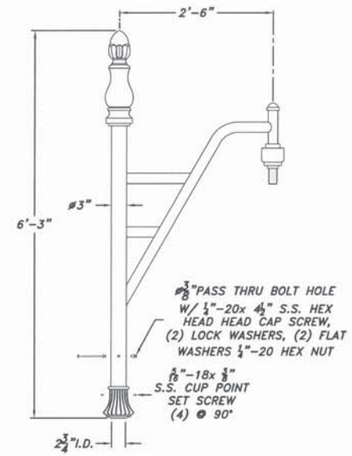
STEEL SERIES-TAPERED SMOOTH STEEL-18'-6 POLE HEIGHT
SS-11-TSS-18.5

Catalog Name: SS-11-TSS-18.5-MT-1 Date: 06.03.14

Revision History: N/A Revision #: 0

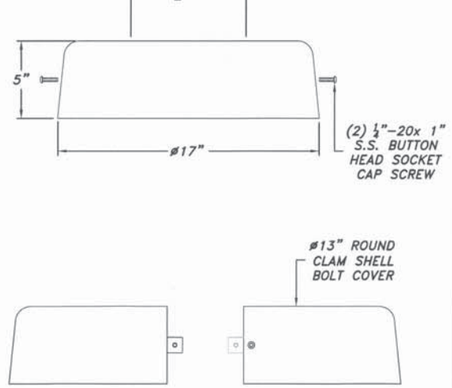
Niland Approval: Luis M.Gomez Customer Approval: Page: 2 of 2

METRO SERIES-SINGLE ARM MT-1



SCALE: 1/2"=1'-0"

STEEL SERIES-ø17" BASE-CAST ALUMINUM CLAM SHELL BASE



SCALE: 1 1/2"=1'-0"

Niland Company
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320 N. Clark El Paso, Tx 79905 • PH: 800-848-9013 • FAX: 888-779-3065 • WEB PAGE: HTTP://www.nilandco.com

METRO ENGINEERING SOLUTIONS
2021 S. SCHAEFER HWY.
DETROIT, MICHIGAN 48217
PHONE: 734.483.1427 FAX: 734.483.3431
www.metroes.net

PLA STREETLIGHTING			
MES JOB #:	N/A	DRAWN BY:	RYAN JALYNSKI
PLOT SCALE:	NOT TO SCALE	CHECKED BY:	ANURAG
PLOT DATE:	2/19/2020	DATE:	2/19/2020

PUBLIC LIGHTING AUTHORITY OF DETROIT

GRAND RIVER POST STANDARD DETAILS
STANDARD DETAIL
CITY OF DETROIT
WAYNE COUNTY, MI

GRAPHIC SCALE
NOT TO SCALE

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

SHEET INFORMATION

DT-01

TOTAL SHEETS	SHEET NO.
01	01

GE Evolve®
LED Roadway Lighting
ERL1-ERLH-ERL2

Project name _____
Date _____
Type _____

Typical Specifications: ERL1-ERLH-ERL2

LED & Optical

- **Output Range:** 1900 – 30000 lm
- **Photometric Options:** Type II Narrow, Type II Wide, Type III, Type IV
- **System Efficacy:** 100 - 145 LPW
- **CCT:** 2700K, 3000K, 4000K; LEDs @ 70 CRI

Lumen Maintenance Tables

Projected Lxx per IES TM-21 at 25°C for reference:

ERL1 LUMEN OUTPUT CODES	LXX(10K)@HOURS 25,000 HR	50,000 HR	60,000 HR
02,03,04,05,06	L96	L95	L94
07,08,09	L95	L91	L89
10	L89	L80	L76

ERLH LUMEN OUTPUT CODES	LXX(10K)@HOURS 25,000 HR	50,000 HR	60,000 HR
10, 11	L97	L96	L96
13, 14	L95	L93	L92
15, 16	L94	L91	L91

ERL2 LUMEN OUTPUT CODES	LXX(10K)@HOURS 25,000 HR	50,000 HR	60,000 HR
16, 18, 19, 21, 23	L96	L94	L95
25, 27, 28	L95	L93	L92
30	L94	L91	L90

Note: Projected Lxx based on LM80 (10,000 hour testing). Accepted industry tolerances apply to initial luminous flux and lumen maintenance measurements.

Electrical

- **Input Voltage:** 120-277 volt and 347-480 volt
- **Input Frequency:** 50/60Hz
- **Power Factor (PF)*:** >90%
- **Total Harmonic Distortion (THD)*:** <20%

**Power factor and THD tolerance exceptions: ERL1 "02" Lumen output: PF and THD within tolerances above only at 120 volt. ERL1 "03" Lumen output: @120 volt PF~0.89; @ 480 volt THD~26% ERL1 "04" Lumen output: @480 volt THD~22%*

Ratings

- **Surge Protection:** per ANSI C136.2-2015:
  (Driver Internal):
  - 6kV/3kA "Basic: (120 Strikes)" - Standard on ERL1 (02-06)
  - 10kV/5kA "Enhanced: (40 Strikes)" - Standard on ERL1 (07 - 10), ERLH, ERL2

  (Additional Separate Secondary SPD)
  - 10kV/5kA "Enhanced: (40 Strikes) - Option "R"
  - 20kV/10kA "Elevated" (40 Strikes) - Option "T"
- **Safety:** UL/cUL Listed. UL 1598 listed, suitable for wet locations
- **Environmental:** Compliant with the materials restrictions of RoHS
- **EMI:** Title 47 CFR Part 15 Class A
- **Vibration:** 3G per ANSI C136.31-2010
- LM-79 testing in accordance with IESNA Standards
- Std. Optical enclosure rated per ANSI C136.25-2009:
  — ERL1/ERLH/ERL2 = IP65, Optional: IP66

International Dark Sky Association listed. 2700K or 3000K must be selected to meet IDA certification and approval.

- **Operating Temperature:**

PRODUCT ID	LUMEN OUTPUT	AMBIENT READING
ERL1	02-10	-40°C to 50°C
ERLH	10-11, 13	-40°C to 50°C
ERLH	14-16	-40°C to 45°C
ERL2	16-28	-40°C to 50°C
ERL2	30	-40°C to 45°C

Delayed start may be experienced < -35°C

Construction & Finish

- **Housing:**
  — Die Cast Enclosure
  — Casting-integral heat sink for maximum heat transfer
- **Lensing:** Impact resistant tempered glass, standard
- **Paint:** Corrosion resistant polyester powder painted, minimum 2.0 mil. thickness.
  — Standard Colors: Dark Bronze, Black, & Gray
  — RAL & custom colors available
  — Optional coastal finish available.
- **Weight:** 12.4lbs (5.6kg) – 24lbs (10.9kg)

Warranty

- **System Warranty:** 5 Year Standard, 10 Year Optional

Controls

- **Dimming:**
  — Standard: 0-10V; Optional: DALI (120-277V Only)
- **Sensors:**
  — Photo electric sensors (PE) available.
- LightGrid™ compatible

Mounting

- Slipfitter with +/- 5 degree of adjustment for leveling.
- Integral die cast mounting pipe stop.
- Adjustable for 1.25 in. or 2 in. mounting pipe.

Suggested HID Replacement Lumen Levels

- ~4,000–5,000 lumens to replace 100W HPS Cobra-head
- ~7,000–8,800 lumens to replace 150W HPS Cobra-head
- ~8,500–11,500 lumens to replace 200W HPS Cobra-head
- ~11,500–14,000 lumens to replace 250W HPS Cobra-head
- ~21,000–30,000 lumens to replace 400W HPS Cobra-head

Note: Actual replacement lumens may vary based upon mounting height, pole spacing, design criteria, etc.

CONVERSION FROM PREVIOUS GENERATION OPTICS TO CURRENT GENERATION OPTICS** PREVIOUS	DESCRIPTION	CURRENT	DESCRIPTION
A1, B1	Extra Narrow/Narrow Asymmetric	A3	Type II Narrow
C1, E1	Asymmetric Short/Medium	B3	Type II Wide
D1, G1	Asymmetric Forward/Extra Wide	C3	Type III
F1	Asymmetric Wide	D3	Type IV
		E3	Type II Enhanced Back Light

**The information above is designed to provide a guideline to select the correct luminaire for a roadway application. The best and most accurate way to ensure the proper design is do a lighting layout Utilizing AGI.

GE Evolve®
LED Roadway Lighting
ERL1-ERLH-ERL2

Project name _____
Date _____
Type _____

E R L H — 0 — 10 — B3 — 40 — A — BLCK — LRY

PROD. ID	VOLTAGE	LUMEN OUTPUT	DISTRIBUTION*	CCT	CONTROLS	COLOR	OPTIONS
E = Evolve **R** = Roadway **L** – Local **H** = High Output	**0** = 120-277V* **1** = 120 **2** = 208 **3** = 240 **4** = 277 **5** = 480 **D** = 347 **H** = 347-480*#	**10** **11** **13** **14** **15** **16** See Table	**A3** = Type II Narrow **B3** = Type II Wide **C3** = Type III **D3** = Type IV **E3** = Type II Enhanced Back Light See Table *Nominal IES Type classing subject to typical variation, individual units may differ.	**27** = 2700K<>* **30** = 3000K<>* **40** = 4000K <> Select 2700K or 3000K CCT for IDA approved units.	**A** = ANSI C136.41 7-pin **D** = ANSI C136.41 7-pin with Shorting Cap **E** = ANSI C136.41 7-pin with non-Dimming PE Control.* *PE Control Only available for 120-277V or 480V Discrete. Not available for 347-480V or 347V Discrete. **NOTE:** Dimming controls wired for 0-10V standard unless DALI option "U" requested.	**GRAY** = Gray **BLCK** = Black **DKBZ** = Dark Bronze	**A** = 4 Bolt Slipfitter † **F** = Fusing **G** = Internal Bubble Level **I** = IP66 Optical **L** = Tool-Less Entry **R** = Secondary 10kV/5kA SPD **T** = Secondary 20kV/10kA SPD **U** = DALI Programmable +^ **V1** = Variable Output via Field Adjustable Module** **X** = Single Package # **Y** = Coastal Finish* **XXX** = Special Options † Contact manufacturer for Lead-Time. # "X" option provides single pack box per fixture. Std Packaging = 20 units per Magna pak container. * Recommended for installations within 750 ft. from the coast. Contact Factory for Lead-Time. + Compatible with LightGrid 2.0 nodes. ^ Not available in 347V, 480V or 347-480V. ** Not available with DALI (U) option.

* Not available with Fusing. Must choose a discrete voltage with F option.
 # Not available with E controls option.

LUMEN OUTPUT	DISTRIBUTION	TYPICAL INITIAL LUMENS 4000K	3000K	2700K	TYPICAL SYSTEM WATTAGE 120-277V	347-480V	BUG RATING 4000K	3000K	2700K	IES FILE NUMBER 4000K	3000K	2700K
10	A3	10000	9600	9300	82		B2-U0-G2	B2-U0-G2	B2-U0-G2	ERLH_10A340___.IES	ERLH_10A330___.IES	ERLH_10A327___.IES
	B3						B2-U0-G2	B2-U0-G2	B2-U0-G2	ERLH_10B340___.IES	ERLH_10B330___.IES	ERLH_10B327___.IES
	C3						B2-U0-G3	B2-U0-G2	B2-U0-G2	ERLH_10C340___.IES	ERLH_10C330___.IES	ERLH_10C327___.IES
	D3						B1-U0-G3	B1-U0-G2	B1-U0-G2	ERLH_10D340___.IES	ERLH_10D330___.IES	ERLH_10D327___.IES
	E3						B3-U0-G3	B3-U0-G3	B3-U0-G3	ERLH_10E340___.IES	ERLH_10E330___.IES	ERLH_10E327___.IES
11	A3	11500	11000	10700	98		B3-U0-G3	B2-U0-G2	B2-U0-G2	ERLH_11A340___.IES	ERLH_11A330___.IES	ERLH_11A327___.IES
	B3						B3-U0-G3	B2-U0-G2	B2-U0-G2	ERLH_11B340___.IES	ERLH_11B330___.IES	ERLH_11B327___.IES
	C3						B2-U0-G3	B2-U0-G3	B2-U0-G3	ERLH_11C340___.IES	ERLH_11C330___.IES	ERLH_11C327___.IES
	D3						B1-U0-G3	B1-U0-G2	B1-U0-G2	ERLH_11D340___.IES	ERLH_11D330___.IES	ERLH_11D327___.IES
	E3						B3-U0-G3	B3-U0-G3	B3-U0-G3	ERLH_11E340___.IES	ERLH_11E330___.IES	ERLH_11E327___.IES
13	A3	13000	12500	12100	111		B3-U0-G3	B3-U0-G3	B3-U0-G3	ERLH_13A340___.IES	ERLH_13A330___.IES	ERLH_13A327___.IES
	B3						B2-U0-G3	B2-U0-G3	B2-U0-G3	ERLH_13B340___.IES	ERLH_13B330___.IES	ERLH_13B327___.IES
	C3						B2-U0-G3	B2-U0-G3	B2-U0-G3	ERLH_13C340___.IES	ERLH_13C330___.IES	ERLH_13C327___.IES
	D3						B2-U0-G3	B2-U0-G3	B1-U0-G3	ERLH_13D340___.IES	ERLH_13D330___.IES	ERLH_13D327___.IES
	E3						B3-U0-G3	B3-U0-G3	B3-U0-G3	ERLH_13E340___.IES	ERLH_13E330___.IES	ERLH_13E327___.IES
14	A3	14000	13400	13000	122		B3-U0-G3	B3-U0-G3	B3-U0-G3	ERLH_14A340___.IES	ERLH_14A330___.IES	ERLH_14A327___.IES
	B3						B2-U0-G3	B2-U0-G3	B2-U0-G3	ERLH_14B340___.IES	ERLH_14B330___.IES	ERLH_14B327___.IES
	C3						B2-U0-G3	B2-U0-G3	B2-U0-G3	ERLH_14C340___.IES	ERLH_14C330___.IES	ERLH_14C327___.IES
	D3						B2-U0-G3	B2-U0-G3	B2-U0-G3	ERLH_14D340___.IES	ERLH_14D330___.IES	ERLH_14D327___.IES
	E3						B3-U0-G3	B3-U0-G3	B3-U0-G3	ERLH_14E340___.IES	ERLH_14E330___.IES	ERLH_14E327___.IES
15	A3	15000	14400	13900	136		B3-U0-G3	B3-U0-G3	B3-U0-G3	ERLH_15A340___.IES	ERLH_15A330___.IES	ERLH_15A327___.IES
	B3						B2-U0-G3	B2-U0-G3	B2-U0-G3	ERLH_15B340___.IES	ERLH_15B330___.IES	ERLH_15B327___.IES
	C3						B2-U0-G3	B2-U0-G3	B2-U0-G3	ERLH_15C340___.IES	ERLH_15C330___.IES	ERLH_15C327___.IES
	D3						B2-U0-G3	B2-U0-G3	B2-U0-G3	ERLH_15D340___.IES	ERLH_15D330___.IES	ERLH_15D327___.IES
	E3						B3-U0-G3	B3-U0-G3	B3-U0-G3	ERLH_15E340___.IES	ERLH_15E330___.IES	ERLH_15E327___.IES
16	A3	16000	15300	14900	149		B3-U0-G3	B3-U0-G3	B3-U0-G3	ERLH_16A340___.IES	ERLH_16A330___.IES	ERLH_16A327___.IES
	B3						B3-U0-G3	B3-U0-G3	B2-U0-G3	ERLH_16B340___.IES	ERLH_16B330___.IES	ERLH_16B327___.IES
	C3						B2-U0-G3	B2-U0-G3	B2-U0-G3	ERLH_16C340___.IES	ERLH_16C330___.IES	ERLH_16C327___.IES
	D3						B2-U0-G3	B2-U0-G3	B2-U0-G3	ERLH_16D340___.IES	ERLH_16E330___.IES	ERLH_16D327___.IES
	E3						B3-U0-G3	B3-U0-G3	B3-U0-G3	ERLH_16E340___.IES	ERLH_16E330___.IES	ERLH_16E327___.IES

METRO ENGINEERING SOLUTIONS
2021 S. SCHAEFER HWY.
DETROIT, MICHIGAN 48217
PHONE: 734.483.1427 FAX: 734.483.3431
www.metroes.net

PLA STREETLIGHTING			
MES JOB #:	N/A	DRAWN BY:	RYAN JALYNSKI
PLOT SCALE:	NOT TO SCALE	CHECKED BY:	ANURAG
PLOT DATE:	2/19/2020	DATE:	2/19/2020

PUBLIC LIGHTING AUTHORITY OF DETROIT

111 W STREET LUMINAIRE DETAILS
STANDARD DETAIL
CITY OF DETROIT
WAYNE COUNTY, MI

GRAPHIC SCALE
NOT TO SCALE

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

SHEET INFORMATION
DT-02
TOTAL SHEETS: 01
SHEET NO.: 01

Conductor		
Size (AWG or kcmil)	No. of strands	Stock Numbers
14*	1	**SIM*pull* THHN® CU Stock #: BK:580285, WE:580294, WE/RD:580622, RD:580293, BE:580287, GN:580291, YW:580295, OE:580292, BN:580288, PE:580286, GY:580289**
		Standard THHN CU Stock #: BK:115790, WE:115808, RD:115816, BE:115824, GN:115832, YW:115840, OE:115857, BN:115865, PE:211243, GY:214668, TN:302539, PK:255331
12*	1	**SIM*pull* THHN® CU Stock #: BK:580265, WE:580275, WE/BK:580280, WE/BE:580281, WE/RD:580283 RD:580273, GN:580271, GN/YW:584566, BE:580267, PE:580264, YW:580276, OE:580272, BN:580268, GY:580269, GY/BN:580277 GY/OE:580278, GY/PE:580263, GY/YW:580279, PK:581931**
		Standard THHN CU Stock #: BK:115873, WE:115881, WE/BK:565284, WE/BE:611410, WE/RD:565285, Red:115899, GN:115915, GN/YW:401000, BE:115907, PE:212043, YW:115923 OE:115931, BN:115949, GY:228700, GY/BN:575303, GY/OE:575304 GY/YW:575305, PK:256479, TN:320127
10*	1	**SIM*pull* THHN® CU Stock #: BK:580203, WE:580215, WE/BK:580216, WE/BE:580218, WE/RD:580219, RD:580214, GN:580211, Gn/YW:580212, BE:580204, PE:580202, YW:580220, OE:580213, BN:580205, GY:580206, GY/BN:580226, GY/OE:580208, GY/PE:580201, GY/YW:580210**
		Standard THHN CU Stock #: BK:115956 WE:115964, WE/BK:551545, WE/BE:551547, WE/RD:551546, RD:115972, GN:115998, GN/YW:611757, BE:115980, YW:116004, OE:116012, BN:116020, GY:229823, GY/BN:575300, GY/OE:575301, GY/YW:575302, PK:258384, PE:253336
14*	19	**SIM*pull* THHN® CU Stock #: BK:585485, WE:580180, WE/BK:585484, WE/BE:581899, RD:585494, BE:585486, BE/WE:592686, GN:585490, YW:580181, OE:580177, BN:580172, BN/RD:592685, PE:580178, GY:580173, PK:581933**
		Standard THHN CU Stock #: BK:229559 WE:229567, RD:229575, RD/BK:662817, BE:229583, GN:229591, YW:229609, OE:229617, BN:229625, PE:239566, GY:229633, PK:244863, TN:320150
12*	19	**SIM*pull* THHN® CU Stock #: BK:580182, WE:580199, WE/BK:580192, WE/BE:580193, WE/RD:580194, RD:580198, BE:580222, GN:580195, GN/YW:583863, YW:580200, OE:580196, BN:585461, PE:580197, GY:580250, GY/BN:580207, GY/OE:580189, GY/PE:580188, GY/YW:580190, PK:581932**
		Standard THHN CU Stock #: BK:229641 WE:229658, WE/BK:311514, WE/BE:566441, WE/RD:566440, RD:229666, BE:229674, BE/WE:662981, GN:229682, GN/YW:663013, YW:229690, OE:229708, BN:229716, PE:232124, GY:229724, GY/BN:575307, GY/OE:575309, GY/YW:575310, TN:320168, PK:242503
10*	19	**SIM*pull* THHN® CU Stock #: BK:580221 WE:580255, WE/BK:580260, WE/BE:580261, WE/RD:580262, RD:580254, BE:580222, GN:585464, GN/YW:584567, YW:585470, OE:585465, BN:580223, PE:580253, GY:580250, GY/BN:580207, GY/OE:580257, GY/PE:580227, GY/YW:580259, PK:581930**
		Standard THHN CU Stock #: BK:229732, WE:229740, WE/BK:610028, WE/BE:556199, WE/RD:556198, RD:229757, RD/WE:663039, BE:229765, GN:229773, GN/YW:663112, PE:256594, YW:229781, OE:229799, BN:229807, GY:229815, GY/BN:575297, GY/OE:575298, GY/YW:575299, PK:260539, TN:320176

Color Abbreviations

BK-Black	WE-White	RD-Red	BE-Blue	GN-Green	YW-Yellow
OE-Orange	BN-Brown	GY-Grey	PK-Pink	PE-Purple	TN-Tan

The Power of Connections.™

Southwire®

Conductor		
Size (AWG or kcmil)	No. of strands	Stock Numbers
8	19	**SIM*pull* THHN® CU Stock #: BK:204883, WE:204891, RD:204909, BE:204917, GN:204925, YW:238485, OE:238493, BN:238477, GY:238501, PK:577515, PE:256586**
6	19	**SIM*pull* THHN® CU Stock #: BK:204933, WE:204941, RD:204958, BE:204966, GN:204974, YW:260687, OE:260679, BN:260695, GY:254649, PE:485607**
4	19	**SIM*pull* THHN® CU Stock #: BK:204990, WE:205005, RD:204982, BE:205633, GN:251728, YW:411694, OE:411710, BN:411702, GY:611778, PE:552486**
3	19	**SIM*pull* THHN® CU Stock #: BK:243469, WE:243477, RD:243485, BE:372763, GN:601971, YW:551080, OE:551079, BN:551078, GY:551081, PE:552533**
2	19	**SIM*pull* THHN® CU Stock #: BK:205021, WE:205039, RD:205013, BE:315812, GN:295832, YW:420653, OE:610171, BN:610169, GY:610172, PE:552534**
1	19	**SIM*pull* THHN® CU Stock #: BK:205047, WE:344580, RD:344598, BE:481945, GN:400192, YW:550887, OE:550888, BN:550890, GY:550891, PE:552488**
1/0	19	**SIM*pull* THHN® CU Stock #: BK:205054, WE:558771, RD:558773, BE:558774, GN:556315, YW:558777, OE:558779, BN:558778, GY:558781, PE:551539**
2/0	19	**SIM*pull* THHN® CU Stock #: BK:205062 WE:556111, RD:556113, BE:556114, GN:556115, YW:556116, OE:556117, BN:556119, GY:558784, PE:552535**
3/0	19	**SIM*pull* THHN® CU Stock #: BK:205070, WE:556120, RD:556121, BE:556122, GN:556123, YW:556124, OE:556125, BN:556127, GY:556698, PE:551541**
4/0	19	**SIM*pull* THHN® CU Stock #: BK:205088, WE:556128, RD:556129, BE:556130, GN:556131, YW:556132, OE:556133, BN:556135, GY:556697, PE:551540**
250	37	**SIM*pull* THHN® CU Stock #: BK:205096, WE:556136, YW:556140, OE:556141, BN:556143, GY:556552, BE:556138, GN:556139, PK:592681, PE:551025, RD:556137, TN:592682**
300	37	**SIM*pull* THHN® CU Stock #: BK:205104, WE:556144, RD:556145, BE:556146, GN:556147, YW:556148, OE:556149, BN:556150, GY:556551, PE:551026**
350	37	**SIM*pull* THHN® CU Stock #: BK:205112, WE:556151, RD:556152, BE:556153, GN:556154, YW:556155, OE:556156, BN:556157, GY:556707, PE:551027**
400	37	**SIM*pull* THHN® CU Stock #: BK:205120, WE:556158, RD:556160, BE:556161, GN:556162, YW:556163, OE:556164, BN:556165, GY:556550, PK:581797, PE:551029, TN:581798**
500	37	**SIM*pull* THHN® CU Stock #: BK:205138, WE:556166, RD:556168, BE:556169, GN:556170, YW:556171, OE:556172, BN:556173, GY:556549, PK:581782, PE:551599, TN:581783**
600	61	**SIM*pull* THHN® CU Stock #: BK:321471, WE:556174, RD:556176, BE:556177, GN:556178, YW:556179, OE:556180, BN:556181, GY:558859, PE:552485**
750	61	**SIM*pull* THHN® CU Stock #: BK:320994, WE:564945, RD:564946, BE:564944, GN:551700, YW:550907, OE:550908, BN:550909, GY:550910, PE:552536**
1000	61	**SIM*pull* THHN® CU Stock #: BK:289710, BN:552644, OE:552645, YW:552647**

Color Abbreviations

BK-Black	WE-White	RD-Red	BE-Blue	GN-Green	YW-Yellow
OE-Orange	BN-Brown	GY-Grey	PK-Pink	PE-Purple	TN-Tan

The Power of Connections.™

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One Southwire Drive, Carrollton, GA 30119, USA

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2021 S. SCHAEFER HWY.
DETROIT, MICHIGAN 48217
PHONE: 734.483.1427 FAX: 734.483.3431
www.metroes.net

PLA STREETLIGHTING			
MES JOB #:	N/A	DRAWN BY:	RYAN JALYNSKI
PLOT SCALE:	NOT TO SCALE	CHECKED BY:	ANURAG
PLOT DATE:	2/19/2020	DATE:	2/19/2020

PUBLIC LIGHTING AUTHORITY OF DETROIT

FILL OUT DETAIL SHEET NAME
STANDARD DETAIL
CITY OF DETROIT
WAYNE COUNTY, MI

GRAPHIC SCALE
NOT TO SCALE

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SHEET INFORMATION

DT-02.2

TOTAL SHEETS	SHEET NO.
02	02

SIM*pull* THHN® Aluminum THHN Wire & Cable with Alumaflex® Brand Conductors

600 Volt Alumaflex® Brand Aluminum Alloy (AA-8176) Conductor. Thermoplastic Insulation/SIM Nylon Sheath. Heat, Moisture, Gasoline, Oil, and Sunlight Resistant. Also Rated THWN-2. SIM*pull*® Technology for Easier Pulling

APPLICATIONS

Southwire SIM*pull* THHN® Aluminum THHN Wire & Cable with Alumaflex® Brand conductors are primarily used in conduit and cable trays for services, feeders and branch circuits in commercial or industrial applications as specified in the 2011 National Electrical Code. When used as Type THHN or T90 Nylon conductor is suitable for use in dry locations at temperatures not to exceed 90°C. When used as Type THWN-2 or TWN75, conductor is suitable for use in wet or dry locations at temperatures not to exceed 90°C or not to exceed 75°C when exposed to oil or coolant. Voltage for all applications is 600 volts. This cable should be installed without application of pulling lubricant.

STANDARDS & REFERENCES

Southwire Aluminum SIM*pull* THHN® conductors comply with the following:

- ASTM B-800 and either B-801 or B836 (SIW)
- UL Standard 83
- CSA Standard C22.2 75
- Federal Specification A-A-59544
- VW-1 – Sizes 4 through 1 AWG
- CT - Sizes 1/0 AWG and larger Sizes Rated for CT use
- FT1 - Sizes 4 AWG through 750 kcmil
- T90 Nylon – Sizes 4 AWG through 750 kcmil
- TWN 75 – Sizes 8 AWG through 750 kcmil
- National Electrical Code, NFPA 70
- NEMA WC-70 Construction Requirements
- Gas & Oil Resistant II - All Sizes
- Sunlight Resistant – Sizes 6 AWG and larger
- RoHS/Reach Compliant

CONSTRUCTION

Southwire SIM*pull* THHN® conductors are AlumaFlex® Brand AA-8000 series aluminum alloy, compact stranded. Insulated with a tough heat and moisture-resistant polyvinyl chloride (PVC), over which a SIM nylon (polyamide) or UL-listed equal jacket is applied. Conductor sizes 1/0 AWG and larger are listed and marked sunlight resistant in colors. Available in black, white, red, blue, purple, green, yellow, orange, brown, and gray. Also available in striped configurations. Some colors are subject to economic order quantity.

Conductor		Insulation Thickness (mils)	Jacket Thickness (mils)	Nominal O.D. (mils)	Net Wt. Per 1000' (lbs.)	Allowable Ampacities+			Standard Package
Size (AWG or kcmil)	No. of strands					60°C	75°C	90°C	
8	7	30	5	204	27	35	40	45	B
6	7	30	5	239	38	40	50	60	C
4	7	40	6	305	62	55	65	75	BCD
2	6	40	6	360	91	75	90	100	BC
1	8	50	7	413	117	85	100	115	BC
1/0	10	50	7	450	141	100	120	135	BCD
2/0	12	50	7	490	172	115	135	150	BCD
3/0	16	50	7	537	210	130	155	175	BCD
4/0	19	50	7	589	257	150	180	205	BCD
250	22	60	8	656	311	170	205	230	ABC
300	35	60	8	706	365	190	230	255	BC
350	35	60	8	752	418	210	250	280	BC
400	35	60	8	795	471	225	270	305	BC
500	35	60	8	872	576	260	310	350	BC
600	58	70	9	971	700	285	340	385	BC
700	58	70	9	1035	804	310	375	420	C
750	58	70	9	1066	856	320	385	435	ABC
900	58	70	9	1139	1013	355	425	480	N/A
1000	58	70	9	1218	1117	375	445	500	N/A

+ Allowable Ampacities shown are for general use as specified by the National Electrical Code, Sections 310.15 and 240.4(D). Unless the equipment is marked for use at higher temperatures, the conductor ampacities shall be limited to the follwing per NEC 110.14(C): 60°C - When terminated to equipment for circuits rated 100 amperes or less marked for 14 through 1 AWG conductors. 75°C - When terminated to equipment for circuits rated over 100 amperes or marked for conductors larger than 1 AWG. 90°C - THHN dry locations and THWN wet or dry locations for ampacity adjustment purposes using NEC section 310.15.H17

Package Codes
A-500'
B-2,500'
C-1,000'
D-5,000'

RECOMMENDED SAMPLE SPECIFICATIONS:
Conductors shall be UL-listed Type THHN and THWN-2, suitable for operation at 600 volts, as specified in the National Electrical Code. Sizes 8 through 1 AWG shall be rated VW-1, larger sizes shall be rated for CT Use. Conductors shall be AlumaFlex aluminum alloy, insulated with high-heat and moisture resistant PVC, jacketed with abrasion, moisture, gasoline, and oil resistant nylon or UL-listed equivalent as manufactured by Southwire Company or approved equal.

Revised Dec 3, 2019

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Revised Dec 3, 2019

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One Southwire Drive, Carrollton, GA 30119, USA

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2021 S. SCHAEFER HWY.
DETROIT, MICHIGAN 48217
PHONE: 734.483.1427 FAX: 734.483.3431
www.metroes.net

PLA STREETLIGHTING			
MES JOB #:	N/A	DRAWN BY:	RYAN JALYNSKI
PLOT SCALE:	NOT TO SCALE	CHECKED BY:	ANURAG
PLOT DATE:	2/19/2020	DATE:	2/19/2020

PUBLIC LIGHTING AUTHORITY OF DETROIT

UNDERGROUND ALUMINUM 600V THHN CABLE DETAILS
STANDARD DETAIL
CITY OF DETROIT
WAYNE COUNTY, MI

GRAPHIC SCALE
NOT TO SCALE

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SHEET INFORMATION

DT-04.1	TOTAL SHEETS	SHEET NO.
	02	01

Conductor		
Size (AWG or kcmil)	No. of strands	Stock Numbers
8	7	**Stock #: N/A**
6	7	**Stock #: BK:563768, RD:573834, BE:573835, WE:578332, GN:566358**
4	7	**Stock #: BK:563769, RD:573544, BE:573833, WE:577628, GN:562211**
2	7	**Stock #: BK:563770, RD:573541, BE:573542, WE:563493, BN:587026, OE:587027, YW:587028, GY:578329, GN:562745**
1	18	**Stock #: BK:563771, RD:583155, BE:583156, WE:578328, BN:587023, OE:587024, YW:587025, GY:578327, GN:562746**
1/0	18	**Stock #: BK:562747, RD:562748, BE:562749, WE:562750, BN:562753, OE:562754, YW:562752, GY:562755, GN:562756, PE:573380**
2/0	18	**Stock #: BK:562212, RD:562214, BE:562621, WE:562213, BN:562758, OE:562759, YW:562757, GY:562760, GN:562761, PE:573370**
3/0	18	**Stock #: BK:562663, RD:562665, BE:562666, WE:562664, BN:562763, OE:562764, YW:562762, GY:562765, GN:562766, PE:573371**
4/0	18	**Stock #: BK:562671, RD:562673, BE:562674, WE:562672, BN:561805, OE:561806, YW:561807, GY:562767, GN:562768, PE:573372**
250	22	**Stock #: BK:560444, RD:562626, BE:562627, WE:562625, BN:561863, OE:561864, YW:561865, GY:561866, GN:561867, PE:573373**
300	35	**Stock #: BK:562667, RD:562669, BE:562670, WE:562668, BN:562771, OE:562772, YW:562770, GY:562773, GN:562774, PE:573374**
350	35	**Stock #: BK:560443, RD:562623, BE:562624, WE:562622, BN:561858, OE:561859, YW:561861, GY:561862, GN:562775, PE:573375**
400	35	**Stock #: BK:562677, RD:562776, BE:562778, WE:562779, BN:562781, OE:562782, YW:562780, GY:562783, GN:562699, PE:573376**
500	35	**Stock #: BK:560442, RD:562696, BE:562697, WE:562698, BN:561853, OE:561854, YW:561855, GY:561856, GN:561857, PE:573377**
600	58	**Stock #: BK:560441, RD:562630, BE:562631, WE:562628, BN:561847, OE:561848, YW:561849, GY:561850, GN:561851, PE:573379**
700	58	**Stock #: BK:562689, RD:562690, BE:562691, WE:562692, BN:561843, OE:561844, YW:561846, GY:562693**
750	58	**Stock #: BK:562632, RD:562634, BE:562635, WE:562633, BN:561838, OE:561839, YW:561840, GY:561841, GN:561842, PE:573481**
900	58	**Stock #: BK:562679, RD:562681, BE:562682, WE:562683, BN:561782, OE:561783, YW:561785, GY:561786, GN:562684**
1000	58	**Stock #: BK:562680, BN:564280, OE:564281, YW:564282, GY:564283**

Color Abbreviations

BK-Black RD-Red BE-Blue WE-White BN-Brown
OE-Orange YW-Yellow GY-Grey GN-Green

Revised Dec 3, 2019

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PLA STREETLIGHTING			
MES JOB #:	N/A	DRAWN BY:	RYAN JALYNSKI
PLOT SCALE:	NOT TO SCALE	CHECKED BY:	ANURAG
PLOT DATE:	2/19/2020	DATE:	2/19/2020

PUBLIC LIGHTING AUTHORITY OF DETROIT

UNDERGROUND ALUMINUM 600V THHN CABLE DETAILS
STANDARD DETAIL
CITY OF DETROIT
WAYNE COUNTY, MI

GRAPHIC SCALE
NOT TO SCALE

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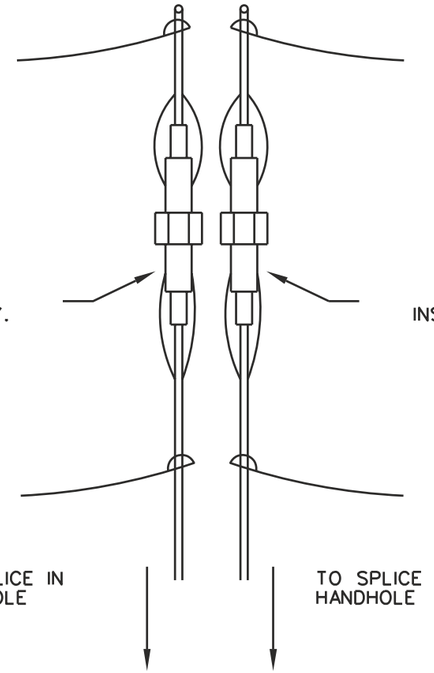
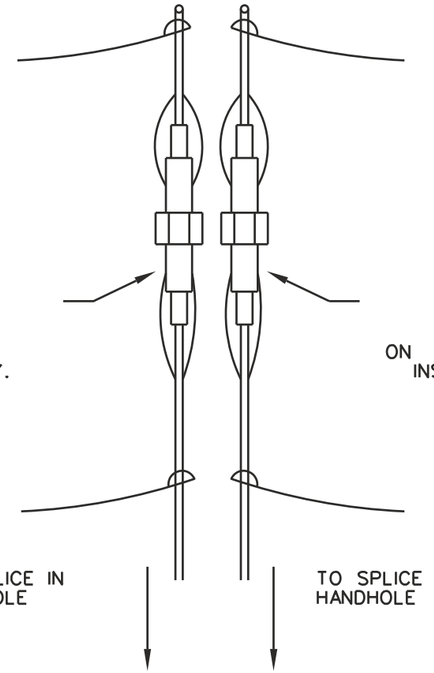
SHEET INFORMATION		
DT-04.2	TOTAL SHEETS	SHEET NO.
	02	02



** ALL CABLES TO BE SIZED AT MINIMUM SIZE OR AS INDICATED ON PLANS
** ADDITIONAL LUMINAIRES REQUIRE ADDITIONAL FUSE HOLDERS

LUMINAIRE AND RECEPTACLE
120V POWER FEED
POLE BASE CONNECTION

NOT TO SCALE



** ALL CABLES TO BE SIZED AT MINIMUM SIZE OR AS INDICATED ON PLANS
** ADDITIONAL LUMINAIRES REQUIRE ADDITIONAL FUSE HOLDERS

LUMINAIRE AND RECEPTACLE
120V NEUTRAL
POLE BASE CONNECTION

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PLOT SCALE:	NOT TO SCALE	CHECKED BY:	ANURAG
PLOT DATE:	2/19/2020	DATE:	2/19/2020

PUBLIC LIGHTING AUTHORITY OF DETROIT

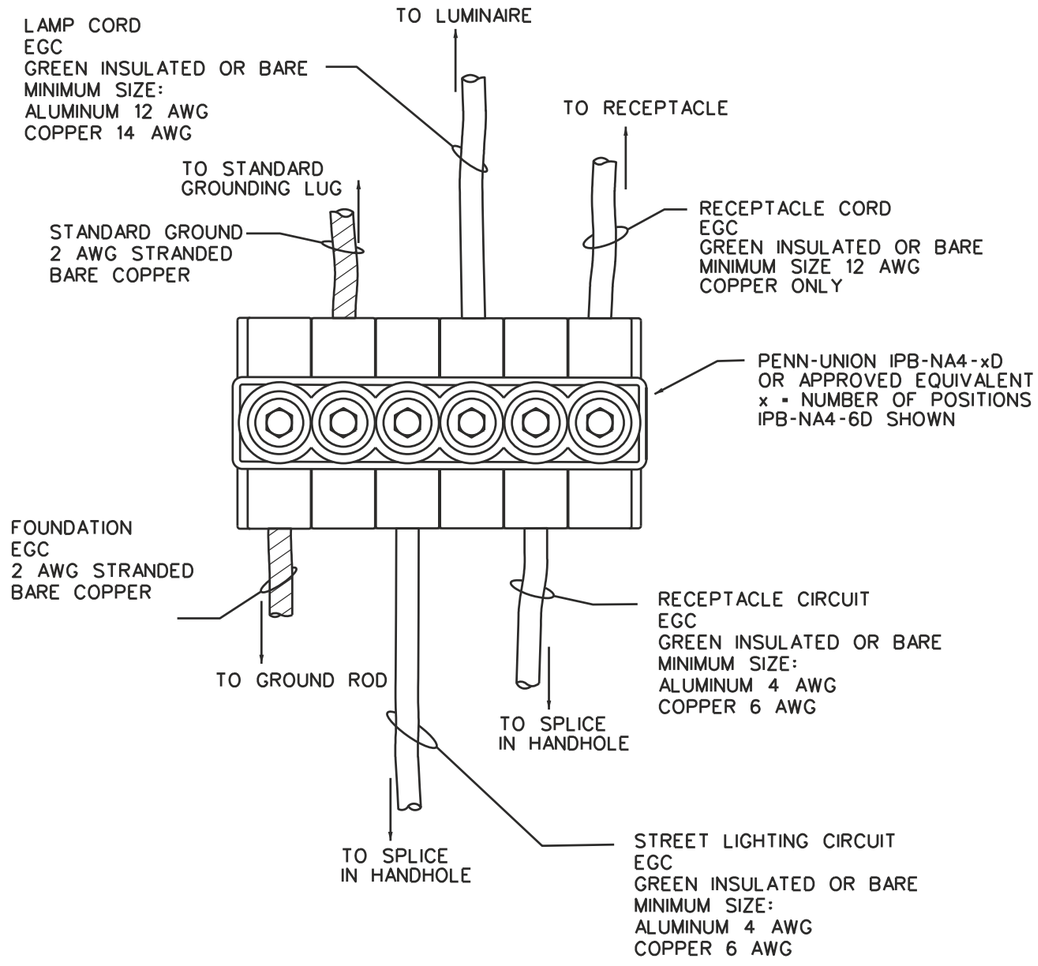
UNDERGROUND FED LIGHTING STANDARD BASE ELECTRICAL CONNECTIONS DETAILS
STANDARD DETAIL
CITY OF DETROIT
WAYNE COUNTY, MI

GRAPHIC SCALE
NOT TO SCALE

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

SHEET INFORMATION

DT-06.1	TOTAL SHEETS	SHEET NO.
	02	01



** ALL CABLES TO BE SIZED AT MINIMUM SIZE OR AS INDICATED ON PLANS
** SIZE THE POWER BAR AS NEEDED FOR LUMINAIRES AND RECEPTACLE

EQUIPMENT GROUND CONDUCTOR (EGC) POLE BASE CONNECTION

NOT TO SCALE

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PLA STREETLIGHTING			
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PLOT DATE:	2/19/2020	DATE:	2/19/2020

PUBLIC LIGHTING AUTHORITY OF DETROIT

UNDERGROUND FED LIGHTING STANDARD BASE ELECTRICAL CONNECTIONS DETAILS
STANDARD DETAIL
CITY OF DETROIT
WAYNE COUNTY, MI

GRAPHIC SCALE
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SHEET INFORMATION

DT-06.2

TOTAL SHEETS	SHEET NO.
02	02

SIM*pull* THHN®

Copper THHN Wire & Cable

600 Volts. Copper Conductor. Thermoplastic Insulation/Nylon Sheath, Heat, Moisture, Gasoline and Oil Resistant II. All Sizes Rated Both THHN and either THWN (sizes 14, 12, and 10 AWG) or THWN-2 (sizes 8 AWG and larger). Also Rated MTW and AWM (See Below). SIMpull® Technology for Easier Pulling.

APPLICATIONS

Southwire® SIM*pull* THHN® copper conductors are primarily used in conduit and cable trays for services, feeders and branch circuits in commercial or industrial applications as specified in the National Electrical Code. Voltage for all applications is 600 volts. SIM*pull* THHN® copper conductors are designed to be installed without application of a pulling lubricant.

These conductors have multiple ratings. Depending upon the product application, allowable temperatures are as follows:

- THHN or T90 Nylon- Dry locations not to exceed 90° C
- THWN-2- Wet or dry locations not to exceed 90° C or locations not to exceed 75° C when exposed to oil
- THWN- Wet locations not to exceed 75° C or dry locations not to exceed 90° C or locations not to exceed 75° C when exposed to oil
- TWN75- Wet locations not to exceed 75° C
- MTW- Wet locations or when exposed to oil at temperatures not to exceed 60° C or dry locations not to exceed 90° C (with ampacity limited to that for 75° C conductor temperature per NFPA 79)
- AWM- Dry locations not to exceed 105° C only when rated and used as appliance wiring material

STANDARDS & REFERENCES

Southwire® SIM*pull* THHN® copper conductors comply with the following:

- ASTM - B3, B8, and B787 (19 Wire Combination Unilay-Stranded)
- UL Standards 83, 758, 1063, and 1581
- CSA C22.2 No. 75, T90 Nylon/TWN75 Sizes through 1000 kcmil
- NOM-ANCE 90° C
- Federal Specification A-A-59544
- NEMA WC-70 (ICEA S-95-658) Construction Requirements
- National Electrical Code, NFPA 70
- CT Rated in Sizes 1/0 AWG and larger
- VW-1 - Sizes 14 through 1 AWG
- FT1 - All Sizes
- Sunlight Resistant – Sizes 2 AWG and larger
- AWM - Sizes 14 through 6 AWG
- MTW - Stranded Constructions Only
- RoHS/REACH Compliant

CONSTRUCTION

Southwire® SIM*pull* THHN® copper conductors are made with soft drawn copper. Sizes 14 through 4/0 AWG use a combination-unilay stranding while 250 kcmil and larger sizes use a compressed copper stranding. The wire is covered with a tough heat and moisture resistant PVC insulation with an overall nylon jacket utilizing SIM*pull*® Technology. Available in black, white, red, blue, purple, green, yellow, orange, brown, and gray. Also available in striped configurations. Some colors are subject to economic order quantity. Marked as THHN in all sizes. Also marked as THWN-2 in sizes 8 AWG and larger or marked as THWN in sizes 14, 12, and 10 AWG. Marked sunlight resistant in sizes 2 AWG and larger. Sizes 14, 12, and 10 AWG are available with SIM*pull*® Technology only in SIM*pull* BARREL™ cable drum or SIM*pull*® *Coil*PAK™ configurations.

The Power of Connections.™

Southwire®

Conductor		Insulation Thickness (mils)	Jacket Thickness (mils)	Nominal O.D. (mils)	Approx. Net Wt. Per 1000' (lbs.)	Allowable Ampacities+			Standard Package
Size (AWG or kcmil)	No. of strands					60°C	75°C	90°C	
14*	1	15	4	102	15	15	15	15	AC
12*	1	15	4	119	23	20	20	20	AC
10*	1	20	4	150	36	30	30	30	AC
14*	19	15	4	109	16	15	15	15	AC
12*	19	15	4	128	24	20	20	20	AC
10*	19	20	4	161	38	30	30	30	AC
8	19	30	5	213	63	40	50	55	ABCD
6	19	30	5	249	95	55	65	75	ABCD
4	19	40	6	318	152	70	85	100	ABCD
3	19	40	6	346	189	85	100	115	ABCD
2	19	40	6	378	234	95	115	130	ABCD
1	19	50	7	435	299	110	130	145	ABCD
1/0	19	50	7	474	372	125	150	170	ABCD
2/0	19	50	7	518	462	145	175	195	ABCD
3/0	19	50	7	568	575	165	200	225	ABCD
4/0	19	50	7	624	718	195	230	260	ABCD
250	37	60	8	694	851	215	255	290	ABCD
300	37	60	8	747	1012	240	285	320	ABC
350	37	60	8	797	1174	260	310	350	ABC
400	37	60	8	842	1334	280	335	380	ABC
500	37	60	8	926	1655	320	380	430	ABCD
600	61	70	9	1024	1987	350	420	475	ABC
750	61	70	9	1126	2464	400	475	535	BC
1000	61	70	9	1275	3257	455	545	615	C

* Sizes 14, 12, and 10 AWG are available with SIMpull® Technology only in SIMpull® Barrel or CoilPAK® configurations. Standard put ups vary from the ones shown on this chart for standard 14-10 AWG THHN.

+Allowable ampacities shown are for general use as specified by the 2014 Edition of the National Electrical Code Sections 310.15 and 240.4(D).

Unless the equipment is marked for use at higher temperatures the conductor shall be limited to the following per NEC 110.14(C):
60° C - When terminated to equipment for circuits rated 100 amperes or less or marked for 14 - 1 AWG conductors.
75° C - When terminated to equipment for circuits rated over 100 amperes or marked for conductors larger than 1 AWG.
90° C - THHN dry locations and THWN-2 wet or dry locations for ampacity adjustment purposes using NEC section 310.15.

Package Codes:
A - 2500' Reel
B - 1000' Reel
C - 500' Spool
D - 5000' Reel

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One Southwire Drive, Carrollton, GA 30119, USA

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PHONE: 734.483.1427 FAX: 734.483.3431
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PLA STREETLIGHTING			
MES JOB #:	N/A	DRAWN BY:	RYAN JALYNSKI
PLOT SCALE:	NOT TO SCALE	CHECKED BY:	ANURAG
PLOT DATE:	2/19/2020	DATE:	2/19/2020

PUBLIC LIGHTING AUTHORITY OF DETROIT

LAMP CORD CABLE DETAILS
STANDARD DETAIL
CITY OF DETROIT
WAYNE COUNTY, MI

GRAPHIC SCALE
NOT TO SCALE

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

SHEET INFORMATION

DT-07.1	TOTAL SHEETS	SHEET NO.
	02	01

Conductor		
Size (AWG or kcmil)	No. of strands	Stock Numbers
14*	1	**SIM*pull* THHN® CU Stock #: BK:580285, WE:580294, WE/RD:580622, RD:580293, BE:580287, GN:580291, YW:580295, OE:580292, BN:580288, PE:580286, GY:580289**
		Standard THHN CU Stock #: BK:115790, WE:115808, RD:115816, BE:115824, GN:115832, YW:115840, OE:115857, BN:115865, PE:211243, GY:214668, TN:302539, PK:255331
12*	1	**SIM*pull* THHN® CU Stock #: BK:580265, WE:580275, WE/BK:580280, WE/BE:580281, WE/RD:580283 RD:580273, GN:580271, GN/YW:584566, BE:580267, PE:580264, YW:580276, OE:580272, BN:580268, GY:580269, GY/BN:580277 GY/OE:580278, GY/PE:580263, GY/YW:580279, PK:581931**
		Standard THHN CU Stock #: BK:115873, WE:115881, WE/BK:565284, WE/BE:611410, WE/RD:565285, Red:115899, GN:115915, GN/YW:401000, BE:115907, PE:212043, YW:115923 OE:115931, BN:115949, GY:228700, GY/BN:575303, GY/OE:575304 GY/YW:575305, PK:256479, TN:320127
10*	1	**SIM*pull* THHN® CU Stock #: BK:580203, WE:580215, WE/BK:580216, WE/BE:580218, WE/RD:580219, RD:580214, GN:580211, Gn/YW:580212, BE:580204, PE:580202, YW:580220, OE:580213, BN:580205, GY:580206, GY/BN:580226, GY/OE:580208, GY/PE:580201, GY/YW:580210**
		Standard THHN CU Stock #: BK:115956 WE:115964, WE/BK:551545, WE/BE:551547, WE/RD:551546, RD:115972, GN:115998, GN/YW:611757, BE:115980, YW:116004, OE:116012, BN:116020, GY:229823, GY/BN:575300, GY/OE:575301, GY/YW:575302, PK:258384, PE:253336
14*	19	**SIM*pull* THHN® CU Stock #: BK:585485, WE:580180, WE/BK:585484, WE/BE:581899, RD:585494, BE:585486, BE/WE:592686, GN:585490, YW:580181, OE:580177, BN:580172, BN/RD:592685, PE:580178, GY:580173, PK:581933**
		Standard THHN CU Stock #: BK:229559 WE:229567, RD:229575, RD/BK:662817, BE:229583, GN:229591, YW:229609, OE:229617, BN:229625, PE:239566, GY:229633, PK:244863, TN:320150
12*	19	**SIM*pull* THHN® CU Stock #: BK:580182, WE:580199, WE/BK:580192, WE/BE:580193, WE/RD:580194, RD:580198, BE:580222, GN:580195, GN/YW:583863, YW:580200, OE:580196, BN:585461, PE:580197, GY:580250, GY/BN:580207, GY/OE:580189, GY/PE:580188, GY/YW:580190, PK:581932**
		Standard THHN CU Stock #: BK:229641 WE:229658, WE/BK:311514, WE/BE:566441, WE/RD:566440, RD:229666, BE:229674, BE/WE:662981, GN:229682, GN/YW:663013, YW:229690, OE:229708, BN:229716, PE:232124, GY:229724, GY/BN:575307, GY/OE:575309, GY/YW:575310, TN:320168, PK:242503
10*	19	**SIM*pull* THHN® CU Stock #: BK:580221 WE:580255, WE/BK:580260, WE/BE:580261, WE/RD:580262, RD:580254, BE:580222, GN:585464, GN/YW:584567, YW:585470, OE:585465, BN:580223, PE:580253, GY:580250, GY/BN:580207, GY/OE:580257, GY/PE:580227, GY/YW:580259, PK:581930**
		Standard THHN CU Stock #: BK:229732, WE:229740, WE/BK:610028, WE/BE:556199, WE/RD:556198, RD:229757, RD/WE:663039, BE:229765, GN:229773, GN/YW:663112, PE:256594, YW:229781, OE:229799, BN:229807, GY:229815, GY/BN:575297, GY/OE:575298, GY/YW:575299, PK:260539, TN:320176

Color Abbreviations

BK-Black	WE-White	RD-Red	BE-Blue	GN-Green	YW-Yellow
OE-Orange	BN-Brown	GY-Grey	PK-Pink	PE-Purple	TN-Tan

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Conductor		
Size (AWG or kcmil)	No. of strands	Stock Numbers
8	19	**SIM*pull* THHN® CU Stock #: BK:204883, WE:204891, RD:204909, BE:204917, GN:204925, YW:238485, OE:238493, BN:238477, GY:238501, PK:577515, PE:256586**
6	19	**SIM*pull* THHN® CU Stock #: BK:204933, WE:204941, RD:204958, BE:204966, GN:204974, YW:260687, OE:260679, BN:260695, GY:254649, PE:485607**
4	19	**SIM*pull* THHN® CU Stock #: BK:204990, WE:205005, RD:204982, BE:205633, GN:251728, YW:411694, OE:411710, BN:411702, GY:611778, PE:552486**
3	19	**SIM*pull* THHN® CU Stock #: BK:243469, WE:243477, RD:243485, BE:372763, GN:601971, YW:551080, OE:551079, BN:551078, GY:551081, PE:552533**
2	19	**SIM*pull* THHN® CU Stock #: BK:205021, WE:205039, RD:205013, BE:315812, GN:295832, YW:420653, OE:610171, BN:610169, GY:610172, PE:552534**
1	19	**SIM*pull* THHN® CU Stock #: BK:205047, WE:344580, RD:344598, BE:481945, GN:400192, YW:550887, OE:550888, BN:550890, GY:550891, PE:552488**
1/0	19	**SIM*pull* THHN® CU Stock #: BK:205054, WE:558771, RD:558773, BE:558774, GN:556315, YW:558777, OE:558779, BN:558778, GY:558781, PE:551539**
2/0	19	**SIM*pull* THHN® CU Stock #: BK:205062 WE:556111, RD:556113, BE:556114, GN:556115, YW:556116, OE:556117, BN:556119, GY:558784, PE:552535**
3/0	19	**SIM*pull* THHN® CU Stock #: BK:205070, WE:556120, RD:556121, BE:556122, GN:556123, YW:556124, OE:556125, BN:556127, GY:556698, PE:551541**
4/0	19	**SIM*pull* THHN® CU Stock #: BK:205088, WE:556128, RD:556129, BE:556130, GN:556131, YW:556132, OE:556133, BN:556135, GY:556697, PE:551540**
250	37	**SIM*pull* THHN® CU Stock #: BK:205096, WE:556136, YW:556140, OE:556141, BN:556143, GY:556552, BE:556138, GN:556139, PK:592681, PE:551025, RD:556137, TN:592682**
300	37	**SIM*pull* THHN® CU Stock #: BK:205104, WE:556144, RD:556145, BE:556146, GN:556147, YW:556148, OE:556149, BN:556150, GY:556551, PE:551026**
350	37	**SIM*pull* THHN® CU Stock #: BK:205112, WE:556151, RD:556152, BE:556153, GN:556154, YW:556155, OE:556156, BN:556157, GY:556707, PE:551027**
400	37	**SIM*pull* THHN® CU Stock #: BK:205120, WE:556158, RD:556160, BE:556161, GN:556162, YW:556163, OE:556164, BN:556165, GY:556550, PK:581797, PE:551029, TN:581798**
500	37	**SIM*pull* THHN® CU Stock #: BK:205138, WE:556166, RD:556168, BE:556169, GN:556170, YW:556171, OE:556172, BN:556173, GY:556549, PK:581782, PE:551599, TN:581783**
600	61	**SIM*pull* THHN® CU Stock #: BK:321471, WE:556174, RD:556176, BE:556177, GN:556178, YW:556179, OE:556180, BN:556181, GY:558859, PE:552485**
750	61	**SIM*pull* THHN® CU Stock #: BK:320994, WE:564945, RD:564946, BE:564944, GN:551700, YW:550907, OE:550908, BN:550909, GY:550910, PE:552536**
1000	61	**SIM*pull* THHN® CU Stock #: BK:289710, BN:552644, OE:552645, YW:552647**

Color Abbreviations

BK-Black	WE-White	RD-Red	BE-Blue	GN-Green	YW-Yellow
OE-Orange	BN-Brown	GY-Grey	PK-Pink	PE-Purple	TN-Tan

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PLA STREETLIGHTING			
MES JOB #:	N/A	DRAWN BY:	RYAN JALYNSKI
PLOT SCALE:	NOT TO SCALE	CHECKED BY:	ANURAG
PLOT DATE:	2/19/2020	DATE:	2/19/2020

PUBLIC LIGHTING AUTHORITY OF DETROIT

LAMP CORD CABLE DETAILS
STANDARD DETAIL
CITY OF DETROIT
WAYNE COUNTY, MI

GRAPHIC SCALE
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SHEET INFORMATION

DT-07.2

TOTAL SHEETS	SHEET NO.
02	02

SIM*pull* THHN®

Copper THHN Wire & Cable

600 Volts. Copper Conductor. Thermoplastic Insulation/Nylon Sheath, Heat, Moisture, Gasoline and Oil Resistant II. All Sizes Rated Both THHN and either THWN (sizes 14, 12, and 10 AWG) or THWN-2 (sizes 8 AWG and larger). Also Rated MTW and AWM (See Below). SIMpull® Technology for Easier Pulling.

APPLICATIONS

Southwire® SIM*pull* THHN® copper conductors are primarily used in conduit and cable trays for services, feeders and branch circuits in commercial or industrial applications as specified in the National Electrical Code. Voltage for all applications is 600 volts. SIM*pull* THHN® copper conductors are designed to be installed without application of a pulling lubricant.

These conductors have multiple ratings. Depending upon the product application, allowable temperatures are as follows:

- THHN or T90 Nylon- Dry locations not to exceed 90° C
- THWN-2- Wet or dry locations not to exceed 90° C or locations not to exceed 75° C when exposed to oil
- THWN- Wet locations not to exceed 75° C or dry locations not to exceed 90° C or locations not to exceed 75° C when exposed to oil
- TWN75- Wet locations not to exceed 75° C
- MTW- Wet locations or when exposed to oil at temperatures not to exceed 60° C or dry locations not to exceed 90° C (with ampacity limited to that for 75° C conductor temperature per NFPA 79)
- AWM- Dry locations not to exceed 105° C only when rated and used as appliance wiring material

STANDARDS & REFERENCES

Southwire® SIM*pull* THHN® copper conductors comply with the following:

- ASTM - B3, B8, and B787 (19 Wire Combination Unilay-Stranded)
- UL Standards 83, 758, 1063, and 1581
- CSA C22.2 No. 75, T90 Nylon/TWN75 Sizes through 1000 kcmil
- NOM-ANCE 90° C
- Federal Specification A-A-59544
- NEMA WC-70 (ICEA S-95-658) Construction Requirements
- National Electrical Code, NFPA 70
- CT Rated in Sizes 1/0 AWG and larger
- VW-1 - Sizes 14 through 1 AWG
- FT1 - All Sizes
- Sunlight Resistant – Sizes 2 AWG and larger
- AWM - Sizes 14 through 6 AWG
- MTW - Stranded Constructions Only
- RoHS/REACH Compliant

CONSTRUCTION

Southwire® SIM*pull* THHN® copper conductors are made with soft drawn copper. Sizes 14 through 4/0 AWG use a combination-unilay stranding while 250 kcmil and larger sizes use a compressed copper stranding. The wire is covered with a tough heat and moisture resistant PVC insulation with an overall nylon jacket utilizing SIM*pull*® Technology. Available in black, white, red, blue, purple, green, yellow, orange, brown, and gray. Also available in striped configurations. Some colors are subject to economic order quantity. Marked as THHN in all sizes. Also marked as THWN-2 in sizes 8 AWG and larger or marked as THWN in sizes 14, 12, and 10 AWG. Marked sunlight resistant in sizes 2 AWG and larger. Sizes 14, 12, and 10 AWG are available with SIM*pull*® Technology only in SIM*pull* BARREL™ cable drum or SIM*pull*® *Coil*PAK™ configurations.

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Conductor		Insulation Thickness (mils)	Jacket Thickness (mils)	Nominal O.D. (mils)	Approx. Net Wt. Per 1000' (lbs.)	Allowable Ampacities+			Standard Package
Size (AWG or kcmil)	No. of strands					60°C	75°C	90°C	
14*	1	15	4	102	15	15	15	15	AC
12*	1	15	4	119	23	20	20	20	AC
10*	1	20	4	150	36	30	30	30	AC
14*	19	15	4	109	16	15	15	15	AC
12*	19	15	4	128	24	20	20	20	AC
10*	19	20	4	161	38	30	30	30	AC
8	19	30	5	213	63	40	50	55	ABCD
6	19	30	5	249	95	55	65	75	ABCD
4	19	40	6	318	152	70	85	100	ABCD
3	19	40	6	346	189	85	100	115	ABCD
2	19	40	6	378	234	95	115	130	ABCD
1	19	50	7	435	299	110	130	145	ABCD
1/0	19	50	7	474	372	125	150	170	ABCD
2/0	19	50	7	518	462	145	175	195	ABCD
3/0	19	50	7	568	575	165	200	225	ABCD
4/0	19	50	7	624	718	195	230	260	ABCD
250	37	60	8	694	851	215	255	290	ABCD
300	37	60	8	747	1012	240	285	320	ABC
350	37	60	8	797	1174	260	310	350	ABC
400	37	60	8	842	1334	280	335	380	ABC
500	37	60	8	926	1655	320	380	430	ABCD
600	61	70	9	1024	1987	350	420	475	ABC
750	61	70	9	1126	2464	400	475	535	BC
1000	61	70	9	1275	3257	455	545	615	C

* Sizes 14, 12, and 10 AWG are available with SIMpull® Technology only in SIMpull® Barrel or CoilPAK® configurations. Standard put ups vary from the ones shown on this chart for standard 14-10 AWG THHN.

+Allowable ampacities shown are for general use as specified by the 2014 Edition of the National Electrical Code Sections 310.15 and 240.4(D).

Unless the equipment is marked for use at higher temperatures the conductor shall be limited to the following per NEC 110.14(C):

60° C - When terminated to equipment for circuits rated 100 amperes or less or marked for 14 - 1 AWG conductors.

75° C - When terminated to equipment for circuits rated over 100 amperes or marked for conductors larger than 1 AWG.

90° C - THHN dry locations and THWN-2 wet or dry locations for ampacity adjustment purposes using NEC section 310.15.

Package Codes:
A - 2500' Reel
B - 1000' Reel
C - 500' Spool
D - 5000' Reel

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PLA STREETLIGHTING			
MES JOB #:	N/A	DRAWN BY:	RYAN JALYNSKI
PLOT SCALE:	NOT TO SCALE	CHECKED BY:	ANURAG
PLOT DATE:	2/19/2020	DATE:	2/19/2020

PUBLIC LIGHTING AUTHORITY OF DETROIT

RECEPTACLE CORD CABLE DETAILS
STANDARD DETAIL
CITY OF DETROIT
WAYNE COUNTY, MI

GRAPHIC SCALE
NOT TO SCALE

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SHEET INFORMATION

DT-08.1	TOTAL SHEETS	SHEET NO.
	02	01

Conductor		
Size (AWG or kcmil)	No. of strands	Stock Numbers
14*	1	**SIM*pull* THHN® CU Stock #: BK:580285, WE:580294, WE/RD:580622, RD:580293, BE:580287, GN:580291, YW:580295, OE:580292, BN:580288, PE:580286, GY:580289**
		Standard THHN CU Stock #: BK:115790, WE:115808, RD:115816, BE:115824, GN:115832, YW:115840, OE:115857, BN:115865, PE:211243, GY:214668, TN:302539, PK:255331
12*	1	**SIM*pull* THHN® CU Stock #: BK:580265, WE:580275, WE/BK:580280, WE/BE:580281, WE/RD:580283 RD:580273, GN:580271, GN/YW:584566, BE:580267, PE:580264, YW:580276, OE:580272, BN:580268, GY:580269, GY/BN:580277 GY/OE:580278, GY/PE:580263, GY/YW:580279, PK:581931**
		Standard THHN CU Stock #: BK:115873, WE:115881, WE/BK:565284, WE/BE:611410, WE/RD:565285, Red:115899, GN:115915, GN/YW:401000, BE:115907, PE:212043, YW:115923 OE:115931, BN:115949, GY:228700, GY/BN:575303, GY/OE:575304 GY/YW:575305, PK:256479, TN:320127
10*	1	**SIM*pull* THHN® CU Stock #: BK:580203, WE:580215, WE/BK:580216, WE/BE:580218, WE/RD:580219, RD:580214, GN:580211, Gn/YW:580212, BE:580204, PE:580202, YW:580220, OE:580213, BN:580205, GY:580206, GY/BN:580226, GY/OE:580208, GY/PE:580201, GY/YW:580210**
		Standard THHN CU Stock #: BK:115956 WE:115964, WE/BK:551545, WE/BE:551547, WE/RD:551546, RD:115972, GN:115998, GN/YW:611757, BE:115980, YW:116004, OE:116012, BN:116020, GY:229823, GY/BN:575300, GY/OE:575301, GY/YW:575302, PK:258384, PE:253336
14*	19	**SIM*pull* THHN® CU Stock #: BK:585485, WE:580180, WE/BK:585484, WE/BE:581899, RD:585494, BE:585486, BE/WE:592686, GN:585490, YW:580181, OE:580177, BN:580172, BN/RD:592685, PE:580178, GY:580173, PK:581933**
		Standard THHN CU Stock #: BK:229559 WE:229567, RD:229575, RD/BK:662817, BE:229583, GN:229591, YW:229609, OE:229617, BN:229625, PE:239566, GY:229633, PK:244863, TN:320150
12*	19	**SIM*pull* THHN® CU Stock #: BK:580182, WE:580199, WE/BK:580192, WE/BE:580193, WE/RD:580194, RD:580198, BE:580222, GN:580195, GN/YW:583863, YW:580200, OE:580196, BN:585461, PE:580197, GY:580250, GY/BN:580207, GY/OE:580189, GY/PE:580188, GY/YW:580190, PK:581932**
		Standard THHN CU Stock #: BK:229641 WE:229658, WE/BK:311514, WE/BE:566441, WE/RD:566440, RD:229666, BE:229674, BE/WE:662981, GN:229682, GN/YW:663013, YW:229690, OE:229708, BN:229716, PE:232124, GY:229724, GY/BN:575307, GY/OE:575309, GY/YW:575310, TN:320168, PK:242503
10*	19	**SIM*pull* THHN® CU Stock #: BK:580221 WE:580255, WE/BK:580260, WE/BE:580261, WE/RD:580262, RD:580254, BE:580222, GN:585464, GN/YW:584567, YW:585470, OE:585465, BN:580223, PE:580253, GY:580250, GY/BN:580207, GY/OE:580257, GY/PE:580227, GY/YW:580259, PK:581930**
		Standard THHN CU Stock #: BK:229732, WE:229740, WE/BK:610028, WE/BE:556199, WE/RD:556198, RD:229757, RD/WE:663039, BE:229765, GN:229773, GN/YW:663112, PE:256594, YW:229781, OE:229799, BN:229807, GY:229815, GY/BN:575297, GY/OE:575298, GY/YW:575299, PK:260539, TN:320176

Color Abbreviations

BK-Black	WE-White	RD-Red	BE-Blue	GN-Green	YW-Yellow
OE-Orange	BN-Brown	GY-Grey	PK-Pink	PE-Purple	TN-Tan

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Conductor		
Size (AWG or kcmil)	No. of strands	Stock Numbers
8	19	**SIM*pull* THHN® CU Stock #: BK:204883, WE:204891, RD:204909, BE:204917, GN:204925, YW:238485, OE:238493, BN:238477, GY:238501, PK:577515, PE:256586**
6	19	**SIM*pull* THHN® CU Stock #: BK:204933, WE:204941, RD:204958, BE:204966, GN:204974, YW:260687, OE:260679, BN:260695, GY:254649, PE:485607**
4	19	**SIM*pull* THHN® CU Stock #: BK:204990, WE:205005, RD:204982, BE:205633, GN:251728, YW:411694, OE:411710, BN:411702, GY:611778, PE:552486**
3	19	**SIM*pull* THHN® CU Stock #: BK:243469, WE:243477, RD:243485, BE:372763, GN:601971, YW:551080, OE:551079, BN:551078, GY:551081, PE:552533**
2	19	**SIM*pull* THHN® CU Stock #: BK:205021, WE:205039, RD:205013, BE:315812, GN:295832, YW:420653, OE:610171, BN:610169, GY:610172, PE:552534**
1	19	**SIM*pull* THHN® CU Stock #: BK:205047, WE:344580, RD:344598, BE:481945, GN:400192, YW:550887, OE:550888, BN:550890, GY:550891, PE:552488**
1/0	19	**SIM*pull* THHN® CU Stock #: BK:205054, WE:558771, RD:558773, BE:558774, GN:556315, YW:558777, OE:558779, BN:558778, GY:558781, PE:551539**
2/0	19	**SIM*pull* THHN® CU Stock #: BK:205062 WE:556111, RD:556113, BE:556114, GN:556115, YW:556116, OE:556117, BN:556119, GY:558784, PE:552535**
3/0	19	**SIM*pull* THHN® CU Stock #: BK:205070, WE:556120, RD:556121, BE:556122, GN:556123, YW:556124, OE:556125, BN:556127, GY:556698, PE:551541**
4/0	19	**SIM*pull* THHN® CU Stock #: BK:205088, WE:556128, RD:556129, BE:556130, GN:556131, YW:556132, OE:556133, BN:556135, GY:556697, PE:551540**
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300	37	**SIM*pull* THHN® CU Stock #: BK:205104, WE:556144, RD:556145, BE:556146, GN:556147, YW:556148, OE:556149, BN:556150, GY:556551, PE:551026**
350	37	**SIM*pull* THHN® CU Stock #: BK:205112, WE:556151, RD:556152, BE:556153, GN:556154, YW:556155, OE:556156, BN:556157, GY:556707, PE:551027**
400	37	**SIM*pull* THHN® CU Stock #: BK:205120, WE:556158, RD:556160, BE:556161, GN:556162, YW:556163, OE:556164, BN:556165, GY:556550, PK:581797, PE:551029, TN:581798**
500	37	**SIM*pull* THHN® CU Stock #: BK:205138, WE:556166, RD:556168, BE:556169, GN:556170, YW:556171, OE:556172, BN:556173, GY:556549, PK:581782, PE:551599, TN:581783**
600	61	**SIM*pull* THHN® CU Stock #: BK:321471, WE:556174, RD:556176, BE:556177, GN:556178, YW:556179, OE:556180, BN:556181, GY:558859, PE:552485**
750	61	**SIM*pull* THHN® CU Stock #: BK:320994, WE:564945, RD:564946, BE:564944, GN:551700, YW:550907, OE:550908, BN:550909, GY:550910, PE:552536**
1000	61	**SIM*pull* THHN® CU Stock #: BK:289710, BN:552644, OE:552645, YW:552647**

Color Abbreviations

BK-Black	WE-White	RD-Red	BE-Blue	GN-Green	YW-Yellow
OE-Orange	BN-Brown	GY-Grey	PK-Pink	PE-Purple	TN-Tan

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PLA STREETLIGHTING			
MES JOB #:	N/A	DRAWN BY:	RYAN JALYNSKI
PLOT SCALE:	NOT TO SCALE	CHECKED BY:	ANURAG
PLOT DATE:	2/19/2020	DATE:	2/19/2020

PUBLIC LIGHTING AUTHORITY OF DETROIT

RECEPTACLE CORD CABLE DETAILS
STANDARD DETAIL
CITY OF DETROIT
WAYNE COUNTY, MI

GRAPHIC SCALE
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SHEET INFORMATION		
DT-08.2	TOTAL SHEETS	SHEET NO.
	02	02

COOPER Bussmann

TRON® In-Line Fuse Holders

HEB Series Single-Pole Breakaway & Non-Breakaway for 13/32″ x 1 1/2″ Fuses

Non-Breakaway Fuse Holders

See page 2 for breakaway holders

Catalog Symbol: HEB

Description:

Water resistant, single-pole non-breakaway in-line fuse holders for 13/32″ x 1 1/2″ midget fuses. Typical fuse types: BAF, DCM, FNM, FNQ and KTK.

Ratings:

Volts: 600V (or less)

Amps: Up to 30A*

Agency Information:

(1)UL Recognized, Guide IZLT2, File E14853

(2)CSA Certified, Class 6225-01, File 47235

(3)CE

Coupling Nut Torque: 10-20lb-in.

Part Number Explanation

Example: HEB-AK

- HEB = Holder series
- A = Loadside terminal (copper crimp for #12 copper wire)
- K = Lineside terminal (copper setscrew for two #6 copper wires)

Part Number Selection

From the table on page three, select the combination of desired loadside and lineside terminals for the application (define terminal type, wire size, number of wires per terminal and whether the terminal accepts solid and/or stranded conductors). Then in the right hand two columns, select either the non-breakaway or breakaway holder part number to order.

Available Part Numbers

HEB-AA(1) (2) (3), HEB-AB(2), HEB-AC(2), HEB-AD(2), HEB-AE(2), HEB-AJ, HEB-AK, HEB-AL, HEB-AR, HEB-AY, HEB-BA(2), HEB-BB(2), HEB-BC(2), HEB-BD(2), HEB-CC(2), HEB-DD(2), HEB-JJ, HEB-JK, HEB-JL, HEB-JY, HEB-LL, HEB-NN, HEB-PP(2), HEB-QQ(2), HEB-RR(2), HEB-SS, HEB-TT(2), HEB-ZA

Specification Data - Non-Breakaway & Loadside Breakaway

Conductor Terminals

Terminal Type	Conductor Data Size	No. Per Terminal	Solid	Stranded	Catalog Symbol Load & Line (2) & (3)
Copper Crimp 	#12 to #3	1	•	•	A
	#12	2	•	•	
	#10	2	•	•	B
	#6	1	•	•	
	#8	2	•	•	C
	#4	1	—	•	
	#6	2	•	•	D
	#2	1	—	•	
	#4	2	•	•	E
	#20 to #18	1	•	•	Z
Copper Setscrew 	#12 to #3	1	•	•	J
	#12 to #3	2	•	•	K
Solid Copper Terminal for Aluminum Wire Connector 	#8 to #12	1	•	—	S
	#10 to #4	1	—	•	
Aluminum Crimp 	#8	1	—	•	N
	#6	1	•	—	
	#6	1	—	•	P
	#4	1	•	—	
	#3, #4	1	—	•	Q
	#2	1	•	—	
	#1, #2	1	—	•	R
	#1/0	1	—	•	T
Aluminum Setscrew 	#12 to #2	1	•	•	L
	#12 to #3	2	•	•	Y

Insulating Boots

For insulating boots, see page 2. Insulating boots are not included with non-breakaway holders and must be ordered separately. They come standard with the breakaway holders. When insulating boots are utilized, extra heat retention requires that fuses are sized at a minimum of 200% of the RMS load current.

*Amp rating limited by conductor size

Breakaway Fuse Holders

Catalog Symbol: HEB

Description:

Single-pole breakaway in-line fuse holders for 13/32″ x 1 1/2″ midget fuses. Typical fuse types: BAF, DCM, FNM, FNQ AND KTK.

Ratings:

Volts: 600V (or less)

Amps: Up to 30A*

Agency Information:

(1)UL Recognized, Guide IZLT2, File E14853

(2)CSA Certified, Class 6225-01, File 47235

(3)CE

Coupling Nut Torque: 10-20lb-in.

Part Number Explanation

Example: HEB-AW-RYC

- HEB = Holder series
- AW = Loadside terminal (copper crimp for #12 copper wire)
- RYC = Lineside terminal (copper setscrew for two #6 copper wires)

Part Number Selection

From the table on page three, select the combination of desired loadside and lineside terminals for the application (define terminal type, wire size, number of wires per terminal and whether the terminal accepts solid and/or stranded conductors). Then in the right hand two columns, select either the non-breakaway or breakaway holder part number to order.

Available Part Numbers

Breakaway Units:

(Includes fuse holder, breakaway part and insulating boots):

HEB-AW-RLA, HEB-AW-RLC-A(1) (2) (3), HEB-AW-RLC-B, HEB-AW-RLC-C, HEB-AW-RLC-J, HEB-AW-RYA, HEB-AW-RYC, HEB-BW-RLC-A, HEB-BW-RLC-B, HEB-BW-RYC, HEB-JW-RLC-J, HEB-JW-RYC, HEB-KW-RLC-J, HEB-KW-RYC, HEB-LW-RLA, HEB-LW-RLC-J, HEB-LW-RYA

Fuse Holder Only: HEB-AW(2), HEB-BW(2), HEB-DW(2), HEB-JW, HEB-LW

Breakaway Part: RLC-A, RLC-B, RLC-C, RLC-J, RYC, RLA, RYA

Specification Data - Lineside Breakaway

Breakaway Receptacles

Terminal Type	Conductor Data Size	No. Per Terminal	Solid	Stranded	Catalog Symbol
Copper Crimp 	#12 to #8	1	•	•	-RLC-A
	#6	1	•	•	-RLC-B
	#4	1	•	•	-RLC-C
Copper Setscrew 	#12 to #2	1	•	•	-RLC-J
	#12 to #3	2	•	•	-RYC
Aluminum Setscrew 	#12 to #2	1	•	•	-RLA
	#12 to #3	2	•	•	-RYA
Solid Breakaway 	(Required with Breakaway Receptacle)				W

Insulating Boots

Part Numbers	Type
2A0660	Single conductor
2A0661	Two conductor

Two insulating boots come standard with the breakaway holders (example: HEB-AW-RLC-A). The insulating boots are not included with the non-breakaway holders (example: HEB-AA) or the individual pieces of the breakaway holders (example: HEB-AW, RCL-A). Two insulating boots must be ordered for each holder when ordering them separately. When insulating boots are utilized, extra heat retention requires that fuses are sized at a minimum of 200% of the RMS load current.

*Amp rating limited by conductor size.

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PLA STREETLIGHTING			
MES JOB #:	N/A	DRAWN BY:	RYAN JALYNSKI
PLOT SCALE:	NOT TO SCALE	CHECKED BY:	ANURAG
PLOT DATE:	2/19/2020	DATE:	2/19/2020

PUBLIC LIGHTING AUTHORITY OF DETROIT

FUSE HOLDER DETAILS
STANDARD DETAIL
CITY OF DETROIT
WAYNE COUNTY, MI

GRAPHIC SCALE
NOT TO SCALE

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

SHEET INFORMATION

DT-09.1

TOTAL SHEETS	SHEET NO.
02	01

For HEB Holders Only

Directions:To select complete holder P/N, work from left to right starting with loadside terminal options and then lineside terminal options. Then determine breakaway or non-breakaway style.

Loadside Terminal					Lineside Terminal					Available P/N's	
Terminal Type	Wire Size	No. of Wires per Terminal	Solid Wire	Stranded Wire	Terminal Type	Wire Size	No. of Wires per Terminal	Solid Wire	Stranded Wire	Non-Breakaway P/N (Boots not included)	Breakaway P/N (Boots included)
Copper Crimp	#12 to #8 #12	1 2	Y Y	Y Y	Copper Crimp	#12 to #8 #12	1 2	Y Y	Y Y	HEB-AA(1)(2)(3)	HEB-AW-RLC-A(1)(2)(3)
Copper Crimp	#12 to #8 #12	1 2	Y Y	Y Y	Copper Crimp	#6 #10	1 2	Y Y	Y Y	HEB-AB(2)	HEB-AW-RLC-B
Copper Crimp	#12 to #8 #12	1 2	Y Y	Y Y	Copper Crimp (4)	#4 #8	1 2	N Y	Y Y	HEB-AC(2)	HEB-AW-RLC-C(4)
Copper Crimp	#12 to #8 #12	1 2	Y Y	Y Y	Copper Crimp	#2 #6	1 2	N Y	Y Y	HEB-AD(2)	N/A
Copper Crimp	#12 to #8 #12	1 2	Y Y	Y Y	Copper Crimp	2/0 #3	1 2	N N	Y Y	HEB-AE(2)	N/A
Copper Crimp	#12 to #8 #12	1 2	Y Y	Y Y	Copper Setscrew	#12 to #3	1	Y	Y	HEB-AJ	HEB-AW-RLC-J
Copper Crimp	#12 to #8 #12	1 2	Y Y	Y Y	Copper Setscrew	#12 to #3	2	Y	Y	HEB-AK	HEB-AW-RYC
Copper Crimp	#12 to #8 #12	1 2	Y Y	Y Y	Aluminum Setscrew	#12 to #2	1	Y	Y	HEB-AL	HEB-AW-RLA
Copper Crimp	#12 to #8 #12	1 2	Y Y	Y Y	Aluminum Setscrew	#12 to #2	2	Y	Y	HEB-AY	HEB-AW-RYA
Copper Crimp	#12 to #8 #12	1 2	Y Y	Y Y	Aluminum Crimp	#1, #2	1	N	Y	HEB-AR	N/A
Copper Crimp	#6 #10	1 2	Y Y	Y Y	Copper Crimp	#12 to #8 #12	1 2	Y Y	Y Y	HEB-BA(2)	HEB-BW-RLC-A
Copper Crimp	#6 #10	1 2	Y Y	Y Y	Copper Crimp	#6 #10	1 2	Y Y	Y Y	HEB-BB(2)	HEB-BW-RLC-B
Copper Crimp	#6 #10	1 2	Y Y	Y Y	Copper Crimp	#4 #8	1 2	N Y	Y Y	HEB-BC(2)	N/A
Copper Crimp	#6 #10	1 2	Y Y	Y Y	Copper Crimp	#2 #6	1 2	N Y	Y Y	HEB-BD(2)	N/A
Copper Crimp	#4 #8	1 2	N Y	Y Y	Copper Crimp	#4 #8	1 2	N Y	Y Y	HEB-CC(2)	N/A
Copper Crimp	#2 #6	1 2	N Y	Y Y	Copper Crimp	#2 #6	1 2	N Y	Y Y	HEB-DD(2)	N/A
Copper Crimp	#20, #18	1	Y	Y	Copper Crimp	#12 to #8 #12	1 2	Y Y	Y Y	HEB-ZA	N/A
Copper Setscrew	#12 to #3	1	Y	Y	Copper Setscrew	#12 to #3	1	Y	Y	HEB-JJ	HEB-JW-RLC-J
Copper Setscrew	#12 to #3	1	Y	Y	Copper Setscrew	#12 to #3	2	Y	Y	HEB-JK	HEB-JW-RYC
Copper Setscrew	#12 to #3	1	Y	Y	Aluminum Setscrew	#12 to #2	1	Y	Y	HEB-JL	N/A
Copper Setscrew	#12 to #3	1	Y	Y	Aluminum Setscrew	#12 to #2	2	Y	Y	HEB-JY	N/A
Aluminum Setscrew	#12 to #2	1	Y	Y	Aluminum Setscrew	#12 to #2	1	Y	Y	HEB-LL	HEB-LW-RLA
Aluminum Crimp	#8 #6	1 1	N Y	Y N	Aluminum Crimp	#8 #6	1 1	N Y	Y N	HEB-NN	N/A
Aluminum Crimp	#6 #4	1 1	N Y	Y N	Aluminum Crimp	#6 #4	1 1	N Y	Y N	HEB-PP(2)	N/A
Aluminum Crimp	#3, #4 #2	1 1	N Y	Y N	Aluminum Crimp	#3, #4 #2	1 1	N Y	Y N	HEB-QQ(2)	N/A
Aluminum Crimp	#1, #2	1	N	Y	Aluminum Crimp	#1, #2	1	N	Y	HEB-RR(2)	N/A
Aluminum Crimp	1/0	1	N	Y	Aluminum Crimp	1/0	1	N	Y	HEB-TT(2)	N/A
SolidTerminal for aluminum connector	#8 to #12 #10 to #14	1 1	Y N	N Y	SolidTerminal for aluminum connector	#8 to #12 #10 to #14	1 1	Y N	N Y	HEB-SS	N/A

(1)UL Recognized, Guide IZLT2, File E14853
(2)CSA Certified, Class 5225-01, File 47235
(3)CE
(4)HEB-AW-RLC-C is for (1) #4 stranded wire only.

Contact your local Cooper Bussmann representative for other possible terminations not listed.

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PLA STREETLIGHTING			
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PUBLIC LIGHTING AUTHORITY OF DETROIT

FUSE HOLDER DETAILS
STANDARD DETAIL
CITY OF DETROIT
WAYNE COUNTY, MI

GRAPHIC SCALE
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SHEET INFORMATION

DT-09.2

TOTAL SHEETS	SHEET NO.
02	02

IDENTIFICATION TAG TEXT LEGEND

LIGHTING CONTROLLER (LC) ID TAG NAMING CONVENTION LEGEND

THE FORMAT FOR LIGHTING CONTROLLER ID TAGS SHALL FOLLOW THE FOLLOWING PATTERN:

LCVVWXX

THE SECTIONS SEPARATED FOR CLARITY ARE LC-VV-W-XX. THE LC STAND FOR LIGHTING CONTROLLER. THE V, W AND X ARE AS FOLLOWS:

VV LAST TWO DIGITS OF THE ZIP CODE WHERE THE LIGHTING CONTROLLER IS LOCATED

W ID ASSIGNED TO THE FIRM DESIGNING THE CIRCUIT. EXAMPLES INCLUDE:

- M METRO ENGINEERING SOLUTIONS
- T TETRA TECH
- W C.E.A. AND WADE TRIM JOINT VENTURE

XX ID ASSIGNED TO THE LIGHTING CONTROLLER (LC)

THE TAG SHALL HAVE THE LETTERS MOUNTED HORIZONTALLY WITH THE HOLDER MOUNTED VERTICALLY.

AN EXAMPLE LIGHTING CONTROLLER ID TAG IS:

LC16W30 AN LC INSTALLED IN THE 48230 ZIP THAT WAS LAID OUT BY THE C.E.A AND WADE TRIM JOINT VENTURE AND HAS BEEN ASSIGNED AN ID OF 30 IN THAT ZIP CODE.

CABLE ID TAG NAMING CONVENTION LEGEND

THE FORMAT FOR CABLE TAGS SHALL FOLLOW THE FOLLOWING PATTERN:

UUUVVWXXYZ

THE SECTIONS SEPARATED FOR CLARITY ARE UUU-VV-W-XX-Y-Z. THE VV-W-XX COMES FROM THE ASSIGNED LIGHTING CONTROLLER ID. THE VARIOUS VALUES STAND FOR:

UUU PLA FOR STREET LIGHTING CIRCUITS
REC FOR RECEPTACLE CIRCUITS

VVWXX THE ASSIGNED LC ID. SEE THE LC NAMING CONVENTION

Y THE CIRCUIT BRANCH ID (1, 2, 3, 4, ETC.)

Z THE CONDUCTOR CLASSIFICATION

CLASSIFICATIONS ARE:

- A A PHASE CONDUCTOR
- B B PHASE CONDUCTOR
- N NEUTRAL CONDUCTOR
- G EQUIPMENT GROUND CONDUCTOR (EGC)

THE TAG SHALL HAVE THE LETTERS MOUNTED AND THE HOLDER MOUNTED HORIZONTALLY.

NOTE: CABLE TAG LABELS ARE GENERATED FOR THE CABLE(S) BEING TAGGED DEPENDING ON WHAT IS INCLUDED UNDER THE TAG. FOR INSTANCE, AN ENTIRE BRANCH CIRCUIT 4 CABLE BUNDLE INCLUDING 2 POWER LEGS, 1 NEUTRAL AND 1 EGC COULD BE TAGGED WITH A SINGLE UUU-VV-W-XXY TAG AS LONG AS THE CABLES ARE ALL PHYSICALLY TIED TOGETHER. WHEN AN ENTIRE BRANCH CIRCUIT IS BUNDLED AND TAGGED TOGETHER WITH A CIRCUIT IDENTIFIER OF UUU-VV-W-XX-Y THEN THE INDIVIDUAL CABLES IN THAT BUNDLE CAN BE TAGGED WITH JUST AN “A”, “B”, “N”OR “G”.

NOTE:AN EQUIPMENT GROUND CONDUCTOR (EGC) CAN BE SHARED BETWEEN BRANCH CIRCUITS OR EVEN LIGHTING CONTROLLER CIRCUITS IF ALL THE CABLES SHARE THE SAME CONDUIT WHICH CREATES A UNIQUE TAGGING CONVENTION. THE EGC, IF TAGGED SEPARATELY, IS TAGGED TO INDICATE WHAT LEVEL OF SHARING IS USING THE EGC. THE LEVELS OF EGC TAGGING ARE:

UUUVVWXXYG AN EGC FOR A BRANCH CIRCUIT OR INDIVIDUAL PHASE BUNDLE
UUUVVWXXG AN EGC SHARED BETWEEN MULTIPLE BRANCH CIRCUITS
EGC AN EGC SHARED BETWEEN DIFFERENT TYPES OF CIRCUITS OR LCS

NOTE:THERE EXISTS DECORATIVE LIGHTING WITHIN THE DETROIT LIGHTING AREA UTILIZING STRAND LIGHTING. THOSE CIRCUITS ARE BUNDLED TOGETHER AND GET A UNIQUE TAG OF “STRAND”.

EXAMPLE CABLES TAGS ARE:

PLA26W5A1A PLA STREET LIGHTING BRANCH CIRCUIT BUNDLE
PLA26W5A1AA PLA STREET LIGHTING BRANCH CIRCUIT LAMP LOOP
REC26W5A1A RECEPTACLE BRANCH CIRCUIT BUNDLE
STRAND STRAND LIGHTING FEED CABLE BUNDLE

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PUBLIC LIGHTING AUTHORITY OF DETROIT

IDENTIFICATION TAG DETAILS
STANDARD DETAIL
CITY OF DETROIT
WAYNE COUNTY, MI

GRAPHIC SCALE
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SHEET INFORMATION

DT-11.1

TOTAL SHEETS	SHEET NO.
02	01

IDENTIFICATION TAG TEXT LEGEND - CONTINUED

LUMINAIRE ID TAG NAMING CONVENTION LEGEND

THE FORMAT FOR LUMINAIRE ID TAGS SHALL FOLLOW THE FOLLOWING PATTERN:

WXXXYYYZZZ

THE SECTIONS SEPARATED FOR CLARITY ARE W-XXX-YYY-ZZZ. THE W, X, Y AND Z ARE AS FOLLOWS:

W THE LUMINAIRE TYPE. SOME LUMINAIRE TYPES ARE:

- L LIGHT EMITTING DIODE (LED) FIXTURE
- S SODIUM VAPOR FIXTURE

XXX THE LUMINAIRE WATTAGE. SOME EXAMPLES ARE:

- 118 118W LUMINAIRE
- 152 152W LUMINAIRE

THESE WATTAGES ARE REGARDLESS OF THE LUMINAIRE TYPE.

YYY THE ALPHA PORTION OF THE PLA ASSIGNED LUMINAIRE ID.

ZZZ THE NUMERIC PORTION OF THE PLA ASSIGNED LUMINAIRE ID.

THE TAG SHALL HAVE THE LETTERS MOUNTED HORIZONTALLY WITH THE HOLDER MOUNTED VERTICALLY.

AN EXAMPLE LUMINAIRE ID TAG IS:

L118AFK941 A 118W LED LUMINAIRE WITH THE PLA ID OF AFK941.

MATERIALS

CABLE CIRCUIT IDENTIFICATION TAGS

THE IDENTIFICATION TAGS FOR CABLE CIRCUITS SHALL USE TECH PRODUCTS, INC. FASTTAGS MINIATURE MARKERS. THE TAGS SHALL HAVE BLACK RAISED LETTERING ON A YELLOW BACKGROUND. THE LETTERING SHALL BE ORIENTATED HORIZONTALLY AND IN A SINGLE LINE.

LIGHTING CONTROLLER IDENTIFICATION TAGS

THE IDENTIFICATION TAGS FOR LIGHTING CONTROLLERS SHALL USE TECH PRODUCTS, INC. EVERLAST 1” VERTICALLY MOUNTED NUMBERS AND LETTERS WITH SOLID BLACK POLYPROPYLENE CHARACTERS EMBEDDED IN A BRIGHT YELLOW POLYPROPYLENE BACKGROUND. THE LETTERS SHALL BE STACKED VERTICALLY WITH THE HOLDER MOUNTED VERTICALLY ON THE POLE. EACH CHARACTER SHALL BE 0.70”TALL WHEN MOUNTED. THE TAG SHALL BE MOUNTED ON THE POLE’S STREETSIDE.

LUMINAIRE IDENTIFICATION TAGS

THE IDENTIFICATION TAGS FOR LUMINAIRES SHALL USE TECH PRODUCTS, INC. EVERLAST 1”VERTICALLY MOUNTED NUMBERS AND LETTERS WITH SOLID BLACK POLYPROPYLENE CHARACTERS EMBEDDED IN A BRIGHT YELLOW POLYPROPYLENE BACKGROUND. THE LETTERS SHALL BE STACKED VERTICALLY WITH THE HOLDER MOUNTED VERTICALLY ON THE POLE. EACH CHARACTER SHALL BE 0.70”TALL WHEN MOUNTED. A TAG IS MOUNTED ON THE POLE FOR EACH INDIVIDUAL LUMINAIRE ON THE POLE. THE TAG(S) SHALL BE MOUNTED ON THE POLE’S STREETSIDE.

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PLA STREETLIGHTING			
MES JOB #:	N/A	DRAWN BY:	RYAN JALYNSKI
PLOT SCALE:	NOT TO SCALE	CHECKED BY:	ANURAG
PLOT DATE:	2/19/2020	DATE:	2/19/2020

PUBLIC LIGHTING AUTHORITY OF DETROIT

IDENTIFICATION TAG DETAILS
STANDARD DETAIL
CITY OF DETROIT
WAYNE COUNTY, MI

GRAPHIC SCALE
NOT TO SCALE

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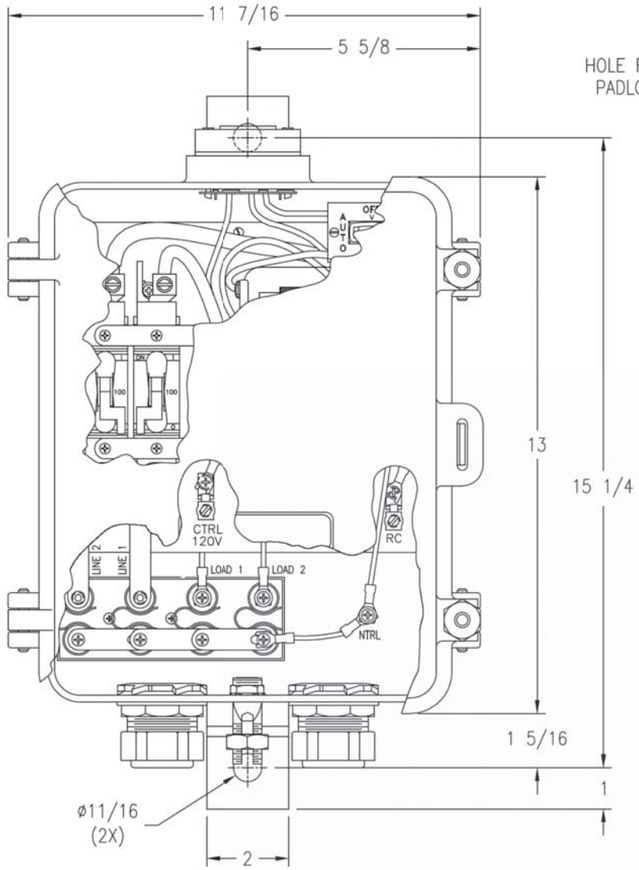
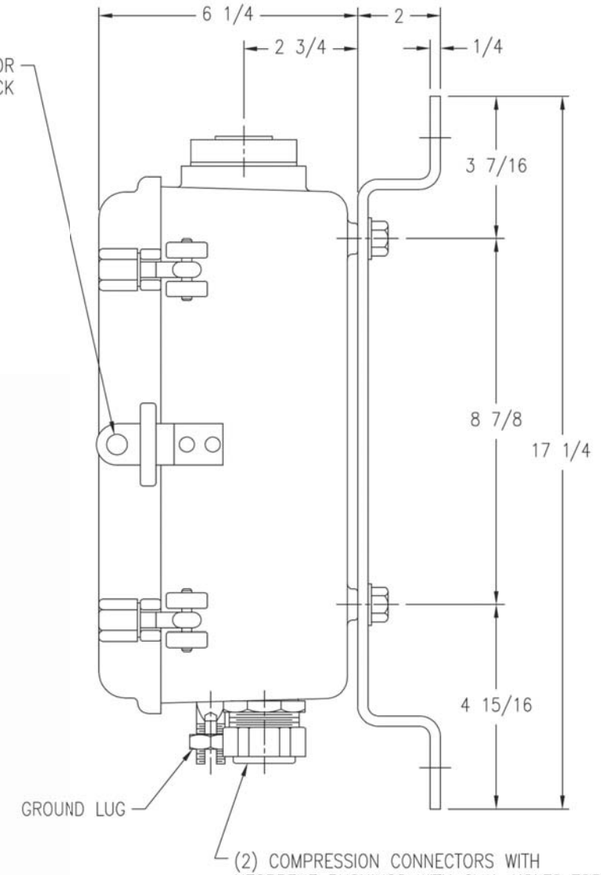
SHEET INFORMATION

DT-11.2

TOTAL SHEETS	SHEET NO.
02	02

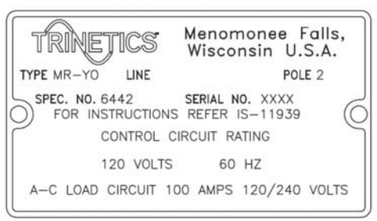




(2) COMPRESSION CONNECTORS WITH NEOPRENE BUSHINGS WITH OVAL HOLES FOR 0.547x0.89 TO 0.687x1.031 CABLE OD

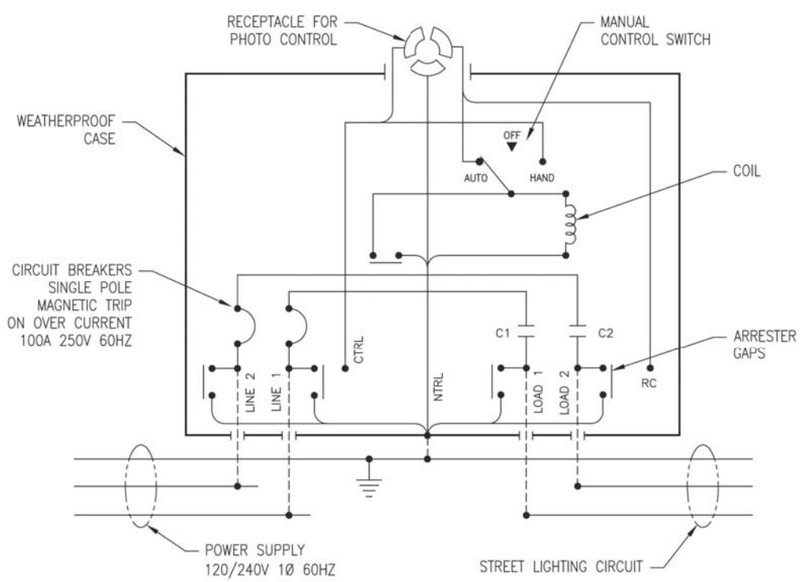
CONTROL TERMINALS WILL ACCEPT #6 THRU #14 AWG WIRE
LINE/LOAD TERMINALS WILL ACCEPT #4 THRU #1/0 AWG WIRE

CAST ALUMINUM WEATHERPROOF CASE WITH BRACKET



NAMEPLATE DETAIL

CONNECTIONS FOR TYPE MR-YO SPEC 6442 STREET LIGHT CONTROL ASS'Y WITH SINGLE POLE MAGNETIC TRIP ON OVERLOAD CIRCUIT BREAKERS.



TWO POLE STREET LIGHT CONTROL ASS'Y WIRED FOR OPERATION WITH 120V PHOTO CONTROL UNIT AND RATED FOR SWITCHING A STREET LIGHTING LOAD WITH NORMAL CURRENT WHICH DOES NOT EXCEED THE LOAD CURRENT RATING SHOWN ON THE NAMEPLATE. IF SUPPLY IS 240/480V, A SEPARATE 120V SOURCE MUST BE CONNECTED TO "CTRL" TERMINAL FOR PC OPERATION.

THE LOCATION OF THE PHOTO CONTROL UNIT MAY BE EITHER AT THE CONTROL ASS'Y AND PLUGGED INTO THE RECEPTACLE PROVIDED FOR SAME, OR AT A REMOTE POINT SUCH AS AN AUXILIARY PHOTO CONTROL MOUNTING ADAPTER OR ANOTHER STREET LIGHT CONTROL ASS'Y.

WHEN PHOTO CONTROL IS TO BE REMOTE, CLOSE THE SELF CONTAINED RECEPTACLE FOR PHOTO CONTROL WITH AN OPEN CIRCUITED CAP. ESTABLISH THE OPERATING CIRCUIT BY WIRING FROM THE "RC" TERMINAL TO THE LOAD LEAD OF THE REMOTELY LOCATED AUXILIARY PHOTO CONTROL MOUNTING ADAPTER, OR TO THE "RC" TERMINAL OF ANOTHER STREET LIGHT CONTROL ASS'Y. INTERCONNECTION OF "RC" TERMINALS OF TWO OR MORE STREET LIGHT CONTROL ASSEMBLIES PROVIDES GANG OPERATION WITH A SINGLE PC UNIT.

MANUAL CONTROL SWITCH IS SHOWN IN "AUTO" POSITION AND PHOTO CONTROL ESTABLISHES ON-OFF STREET LIGHT OPERATING SCHEDULE. MANUAL CONTROL SWITCH IN HAND OR OFF POSITIONS BY-PASSES PHOTO CONTROL TO PROVIDE, RESPECTIVELY, STREET LIGHT CIRCUIT ON OR OFF OPERATION. REMOTE PC LOCATION OR GANG OPERATION CONNECTIONS ARE NOT AFFECTED BY OPERATION OF INDIVIDUAL MANUAL CONTROL SWITCHES. HOWEVER, 120V MUST BE AVAILABLE AT EACH STREET LIGHT CONTROL ASSEMBLY TO PERMIT HAND-ON CIRCUIT OPERATION WITH RESPECTIVE MANUAL CONTROL SWITCH.

THE RELAY MUST BE ENERGIZED CONTINUOUSLY AT 120V DURING THE TIME OF RELAY CONTACT CLOSURE.

TRINETICS

RELAY ASSEMBLY
MR-YO SPEC 6442

THIRD ANGLE PROJECTION	SIZE	DRAWN BY	DATE	PART NUMBER
	B	G Pietschmann	7/14/11	31183000
ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED	FAMILY ID	APPROX. WEIGHT	SCALE	
	C1643	24 LB	5/16	

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PUBLIC LIGHTING AUTHORITY OF DETROIT

STREET LIGHTING PHOTO CONTROLLER DETAILS
STANDARD DETAIL
CITY OF DETROIT
WAYNE COUNTY, MI

GRAPHIC SCALE
NOT TO SCALE

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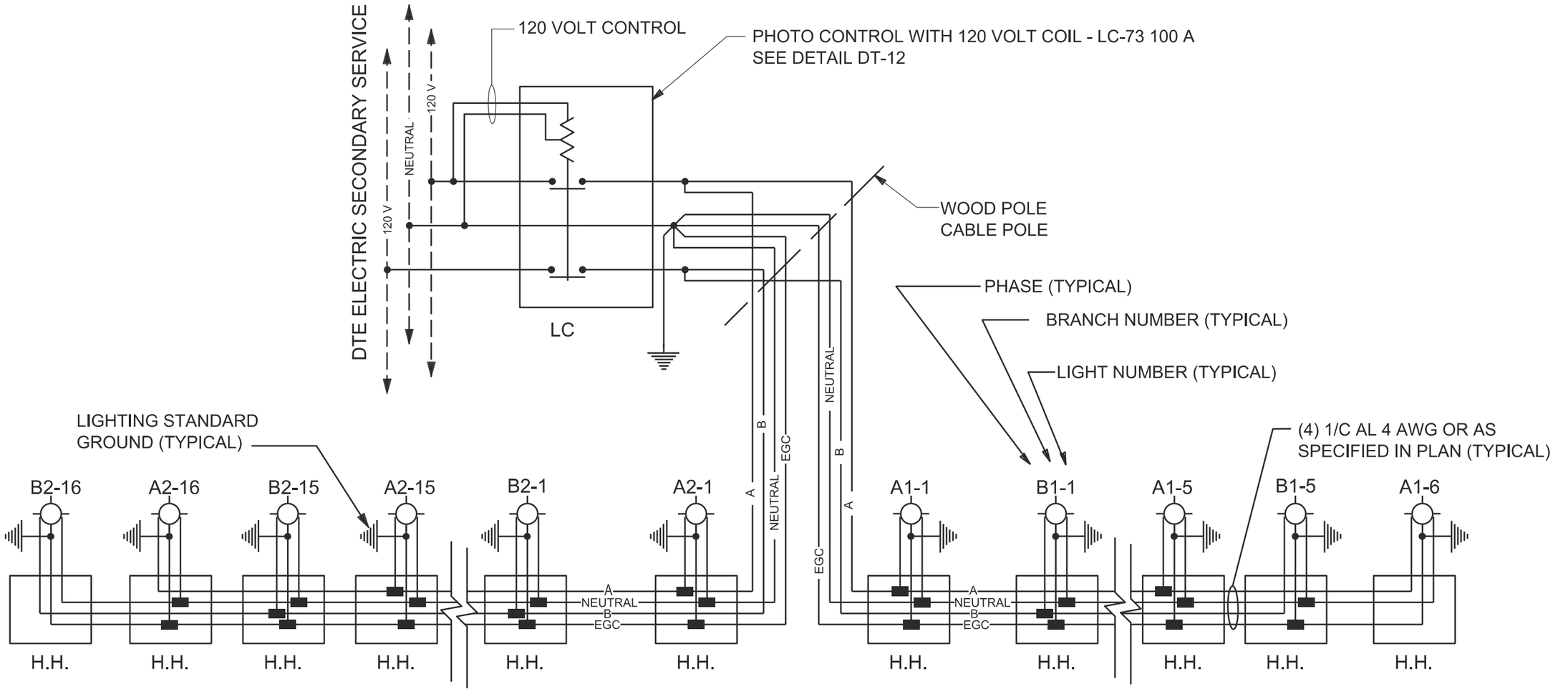
SHEET INFORMATION

DT-12

TOTAL SHEETS	SHEET NO.
01	01



UNDERGROUND STREET LIGHTING CIRCUIT TYPICAL WIRING SCHEMATIC
THREE CONDUCTOR AND EQUIPMENT GROUND CONDUCTOR (EGC)

NOT TO SCALE

UNDERGROUND FED LIGHTING STANDARD

HANDHOLE

HOMAC RAB 1/0-xx MECHANICAL CONNECTOR INSTALLED IN HANDHOLE
xx = IS THE OUTLET CONFIGURATION RAB 1/0-21 IS SHOWN
SIZE AS NECESSARY FOR MULTIPLE LUMINAIRES OR CIRCUIT BRANCHES

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PUBLIC LIGHTING AUTHORITY OF DETROIT

UNDERGROUND LIGHTING AND RECEPTACLE CIRCUITS TYPICAL WIRING SCHEMA DETAILS
STANDARD DETAIL
CITY OF DETROIT
WAYNE COUNTY, MI

GRAPHIC SCALE
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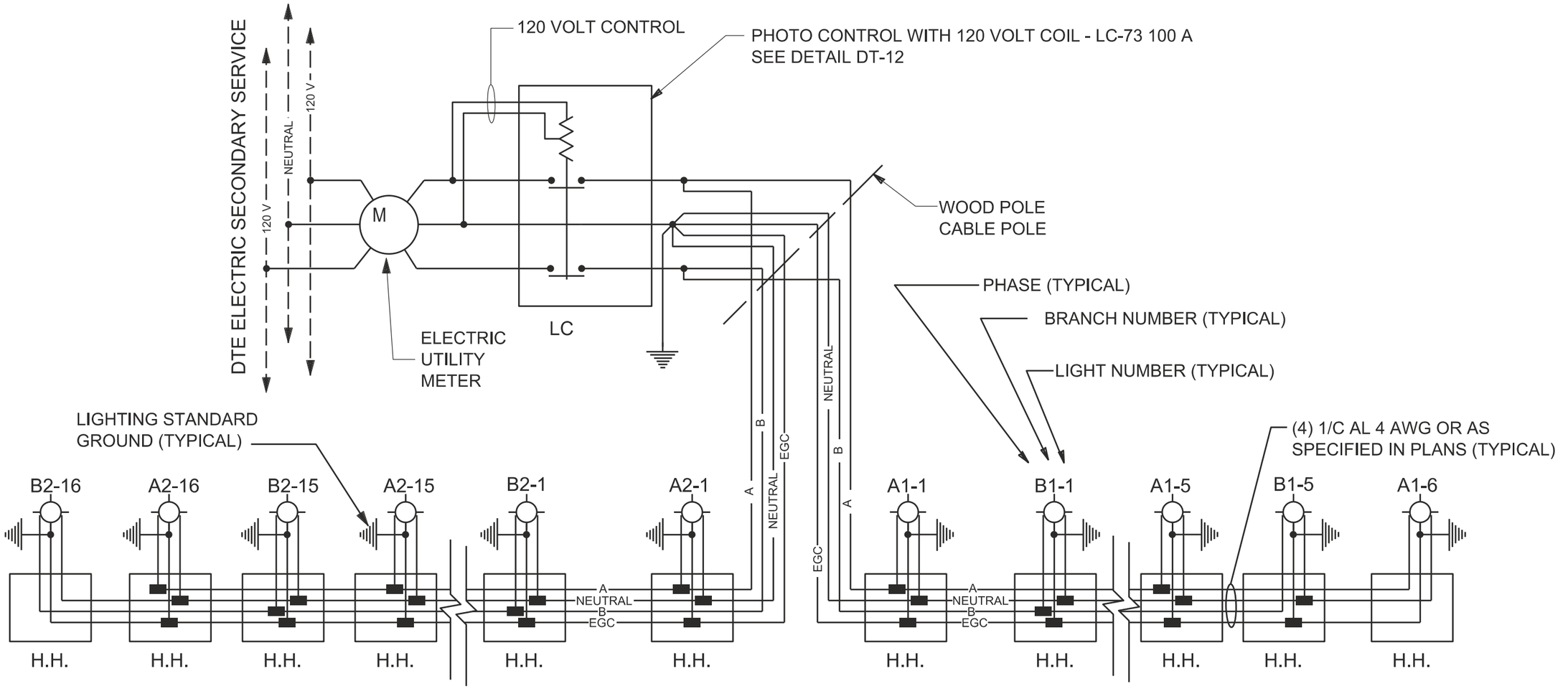
SHEET INFORMATION

DT-13.1

TOTAL SHEETS	SHEET NO.
03	01



RECEPTACLE CIRCUIT TYPICAL WIRING SCHEMATIC
THREE CONDUCTOR AND EQUIPMENT GROUND CONDUCTOR (EGC)

NOT TO SCALE

UNDERGROUND FED LIGHTING STANDARD

HANDHOLE

HOMAC RAB 1/0-xx MECHANICAL CONNECTOR INSTALLED IN HANDHOLE
xx = IS THE OUTLET CONFIGURATION RAB 1/0-21 IS SHOWN
SIZE AS NECESSARY FOR MULTIPLE RECEPTACLES OR CIRCUIT BRANCHES

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UNDERGROUND LIGHTING AND RECEPTACLE CIRCUITS TYPICAL WIRING SCHEMA DETAILS
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SHEET INFORMATION

DT-13.2

TOTAL SHEETS	SHEET NO.
03	02

CABLES IN HANDHOLES AND MANHOLES:

STREET LIGHTING AND RECEPTACLE CABLES IN HANDHOLES AND MANHOLES SHALL BE PULLED STRAIGHT THROUGH THE STRUCTURE UNLESS THERE IS A TAP REQUIRED TO SERVICE A STREET LIGHT, RECEPTACLE OR CIRCUIT BRANCH LOCATION.

LOCATIONS REQUIRING A SERVICE TAP WILL HAVE THE SERVICE PHASE TAPPED WITH THE APPROPRIATE HOMAC RAB CONNECTOR AND THE NON-SERVICE PHASE PULLED STRAIGHT THROUGH.

LOCATIONS REQUIRING CIRCUIT TAPS FOR CIRCUIT BRANCHES WILL BE INDENTIFIED ON THE PLANS WITH THE REQUIRED TAP SIZE AND PHASE PROVIDED.

EXAMPLE 1 - LAMP LOOP:

AN EXAMPLE IS A HANDHOLE LOCATION WITH BOTH THE A PHASE AND THE B PHASE COMING IN AND CONTINUING ALONG TO FEED ADDITIONAL STREET LIGHT LOCATIONS. THE HANDHOLE ALSO FEEDS A STREET LIGHTING STANDARD THAT HAS 2 LUMINAIRES THAT ARE TO BE CONNECTED TO THE B PHASE CABLE AND NO RECEPTACLE. THE B PHASE CABLE WILL HAVE A 4-WAY HOMAC RAB CONNECTOR INSTALLED. THE NEUTRAL WILL HAVE A 4-WAY HOMAC RAB CONNECTOR INSTALLED. THE EGC WILL HAVE A 3-WAY HOMAC RAB CONNECTOR INSTALLED. THE A PHASE CABLE WILL BE PULLED STRAIGHT THROUGH.

EXAMPLE 2 - CIRCUIT BRANCH:

AN EXAMPLE IS A HANDHOLE LOCATION WITH BOTH THE A PHASE AND THE B PHASE COMING IN AND FEEDING TWO DIFFERENT DIRECTIONS GOING OUT WITHOUT A STREET LIGHT LOCATION DIRECTLY CONNECTED TO THE HANDHOLE. THIS EXAMPLE REQUIRES CABLE 3-WAYS (ALSO CALLED A T-TAP OR BRANCH) TO BE INSTALLED TO FEED THE TWO DIFFERENT DIRECTIONS. A 3-WAY HOMAC RAB WILL BE INSTALLED ONTO EACH OF THE A PHASE, B PHASE, NEUTRAL AND EGC CABLES.

UNDERGROUND PHASE IDENTIFICATION

CURRENT UNDERGROUND CONSTRUCTION WIRING STANDARD				
CONDUCTOR ID	**BLACK**	**WHITE/WHITE STRIPE**	**RED/RED STRIPE**	**GREEN/BARE**
PHASE	A PHASE	NEUTRAL	B PHASE	EGC
OBSOLETE UNDERGROUND CONSTRUCTION WIRING STANDARD				
CONDUCTOR ID	**BLACK**	**WHITE/WHITE STRIPE**	**RED/RED STRIPE**	**GREEN/BARE**
PHASE	A PHASE	NEUTRAL	B PHASE	----

*** WHEN MODIFICATIONS OR ADDITIONS ARE REQUIRED ON OBSOLETE STYLE CONSTRUCTION CIRCUITS, THE CHANGES SHOULD BE MADE WITH THE OBSOLETE STYLE OR THE ENTIRE CIRCUIT MUST BE UPDATED.

*** THE CURRENT UNDERGROUND CONSTRUCTION AND THE OBSOLETE UNDEGROUND CONSTRUCTION STANDARDS SHALL NOT BE INTERMINGLED EXCEPT AT THE CIRCUIT SOURCE POINT WHERE THE NEUTRAL IS BONDED TO THE GROUND AT THE MAIN BREAKER.

*** THERE ARE INSTALLATIONS WHERE NEITHER COLOR-CODED, EITHER COLORED INSULATION OR PHASE MARKED, CONDUCTORS ARE USED SO THAT ALL THE CONDUCTORS ARE THE SAME COLOR, TYPICALLY BLACK. PHASING MUST BE FIELD VERIFIED PRIOR TO CONNECTING ANY COLOR-CODED CONDUCTORS TO NON-CODED CONDUCTORS.

*** PRIOR TO CONNECTING ANY NEW CIRCUIT CABLING TO EXISTING CIRCUIT CABLING, CARE IS TO BE TAKEN BY VERIFYING THE EXISTING CIRCUIT CABLING PHASING TO ENSURE THAT PROPER ELECTRICAL CONNECTIONS ARE MADE. IF THE EXISTING CIRCUIT CABLING IS FOUND TO HAVE IMPROPER PHASE IDENTIFICATIONS THEN THE EXISTING CIRCUIT CABLING MUST BE CORRECTED PRIOR TO CONNECTING ANY NEW CABLING.

*** THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING EXISTING CIRCUIT PHASE IDENTIFICATIONS PRIOR TO CONNECTING ANY NEW CIRCUIT CABLING TO EXISTING CIRCUIT CABLING. IF THE EXISTING CIRCUIT CABLING IS FOUND TO HAVE IMPROPER PHASE IDENTIFICATIONS THEN THE EXISTING CIRCUIT CABLING MUST BE CORRECTED PRIOR TO CONNECTING ANY NEW CABLING.

METRO ENGINEERING SOLUTIONS
2021 S. SCHAEFER HWY.
DETROIT, MICHIGAN 48217
PHONE: 734.483.1427 FAX: 734.483.3431
www.metroes.net

PLA STREETLIGHTING			
MES JOB #:	N/A	DRAWN BY:	RYAN JALYNSKI
PLOT SCALE:	NOT TO SCALE	CHECKED BY:	ANURAG
PLOT DATE:	2/19/2020	DATE:	2/19/2020

PUBLIC LIGHTING AUTHORITY OF DETROIT

UNDERGROUND LIGHTING AND RECEPTACLE CIRCUITS TYPICAL WIRING SCHEMA DETAILS	
STANDARD DETAIL	
CITY OF DETROIT	
WAYNE COUNTY, MI	

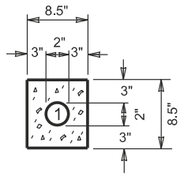
GRAPHIC SCALE
NOT TO SCALE

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

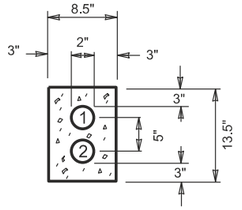
SHEET INFORMATION

DT-13.3

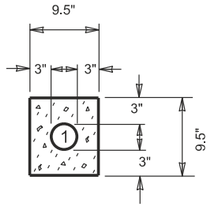
TOTAL SHEETS	SHEET NO.
03	03



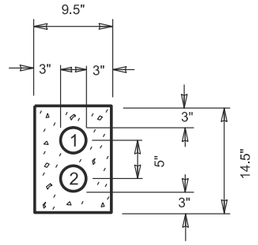
1 - 2" CONDUIT



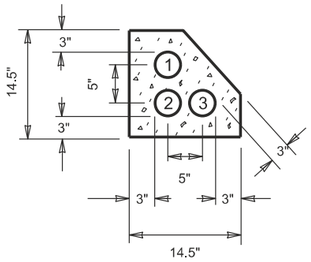
2 - 2" CONDUITS



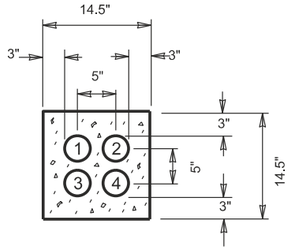
1 - 3" CONDUIT



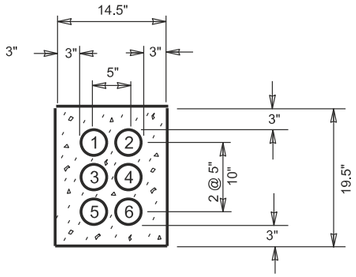
2 - 3" CONDUITS



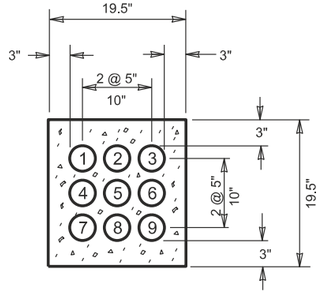
3 - 3" CONDUITS



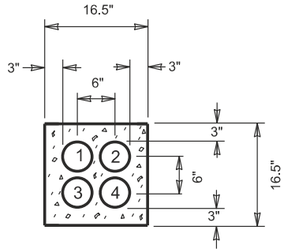
4 - 3" CONDUITS



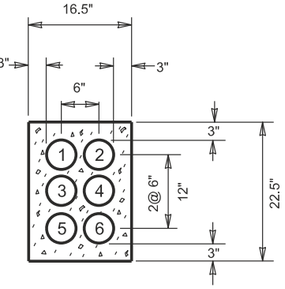
6 - 3" CONDUITS



9 - 3" CONDUITS



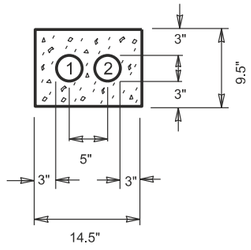
4 - 4" CONDUITS



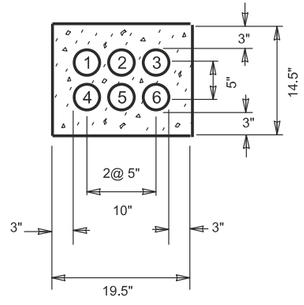
6 - 4" CONDUITS

ALTERNATE ARRANGEMENT OF 3" CONDUIT

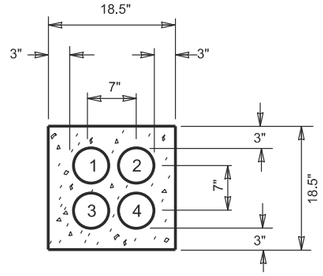
(TO SUIT FIELD CONDITIONS)
(TO BE APPROVED BY THE ENGINEER)



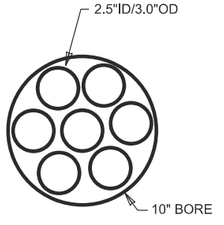
2-3" CONDUITS



6-3" CONDUITS



4 - 5" CONDUITS



7-2.5" CONDUITS
IN
10" DIRECTIONAL BORE

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PLA STREETLIGHTING			
MES JOB #:	N/A	DRAWN BY:	RYAN JALYNSKI
PLOT SCALE:	NOT TO SCALE	CHECKED BY:	ANURAG
PLOT DATE:	2/19/2020	DATE:	2/19/2020

PUBLIC LIGHTING AUTHORITY OF DETROIT

UNDERGROUND STRUCTURES DETAILS
STANDARD DETAIL
CITY OF DETROIT
WAYNE COUNTY, MI

GRAPHIC SCALE
NOT TO SCALE

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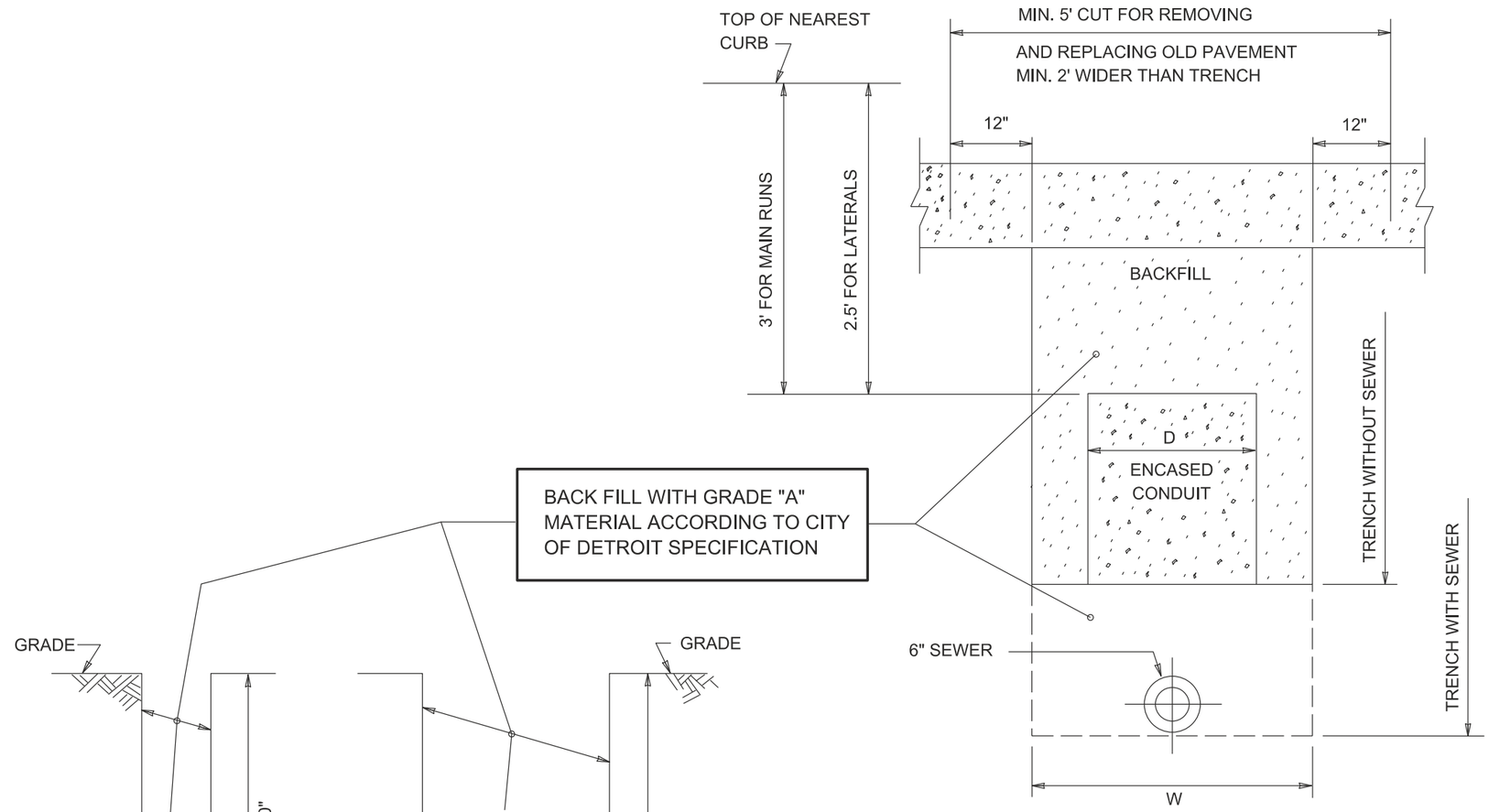
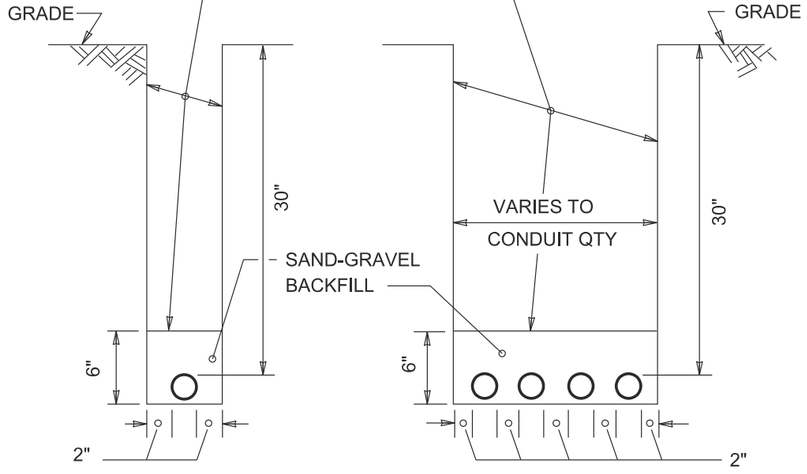
SHEET INFORMATION

DT-15.1

TOTAL SHEETS	SHEET NO.
06	01



ENCASED CONDUIT(S)



DIRECT BURIAL CONDUIT(S)

NOTE:

THE PREFERRED TRENCH WIDTH "W" IS THE WIDTH OF "D" OF CONDUIT ENCASEMENT.

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WAYNE COUNTY, MI

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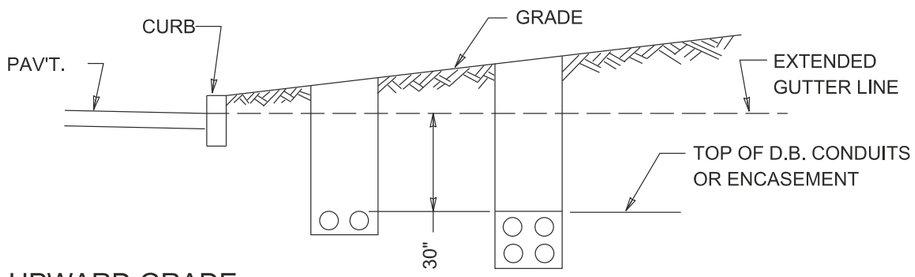
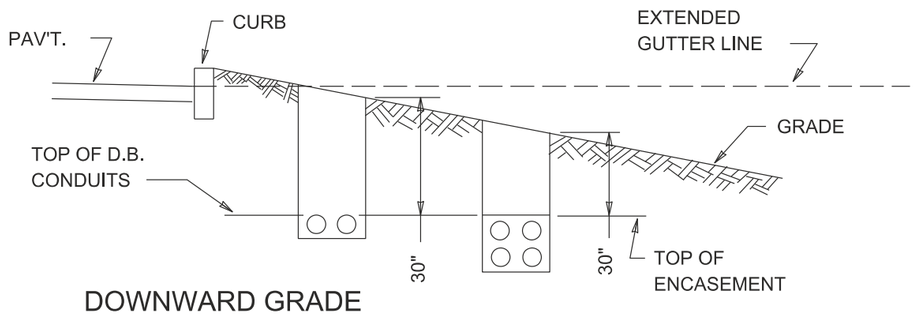
SHEET INFORMATION

DT-15.2	TOTAL SHEETS	SHEET NO.
	06	02



UPWARD GRADE

N.T.S.



DOWNWARD GRADE

N.T.S.

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PUBLIC LIGHTING AUTHORITY OF DETROIT

UNDERGROUND STRUCTURES DETAILS
STANDARD DETAIL
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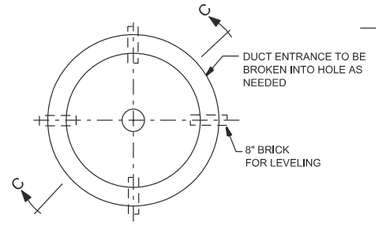
SHEET INFORMATION

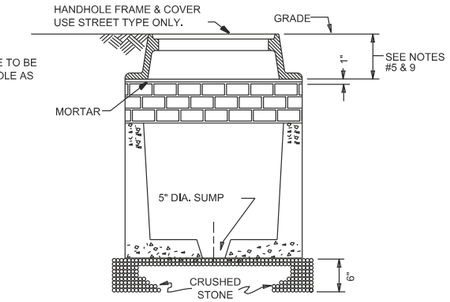
DT-15.3

TOTAL SHEETS	SHEET NO.
06	03

ROUND PRECAST HANDHOLE DETAILS



PLAN



SECTION "C-C"

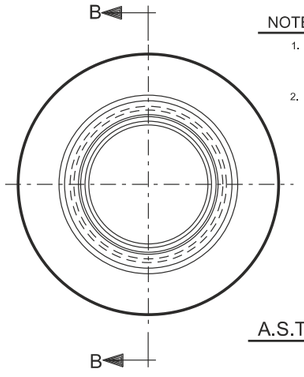
30" DIAMETER X 36" DEEP TYPE III

PRECAST ROUND HANDHOLE

N.T.S.

NOTE:

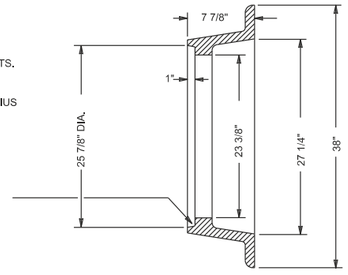
BELL ENDS ARE REQUIRED ON EACH CONDUIT BROKEN OUT IN HANDHOLE. TYPE AND SIZE SHALL BE IDENTICAL TO CONDUIT TYPE AND SIZE.



NOTE:

1. FRAMES MAY BE A.S.T.M. CLASS 30 GRAY IRON IF THE CONTRACTOR SO ELECTS.
2. ALL FILLETS ARE .5" RADIUS & ALL ROUNDS ARE .25" RADIUS

THIS SURFACE TO BE MACHINED FLAT TO PROVIDE CONTINUOUS 360 SEAT FOR COVER



SECTION "B-B"

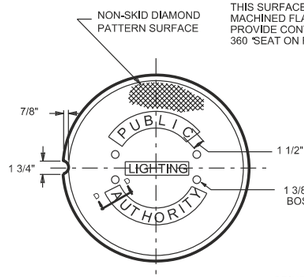
N.T.S.

A.S.T.M. CLASS 20 OR 30 GRAY IRON

APPROX. 255 LBS.

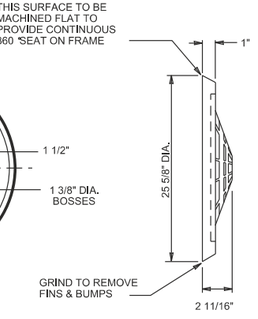
HANDHOLE FRAME

N.T.S.



SECTION "D-D"

N.T.S.



A.S.T.M. CLASS 30 GRAY IRON

APPROX. WT. 145 LBS.

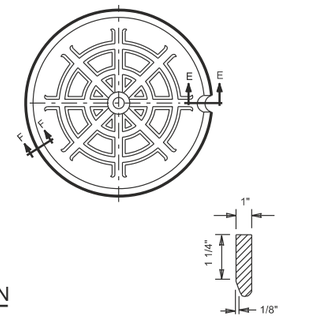
STREET TYPE COVER

TO BE USED IN STREETS & DRIVES

N.T.S.

SECTION "E-E"

N.T.S.



SECTION "F-F"

N.T.S.

METRO ENGINEERING SOLUTIONS
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PLA STREETLIGHTING			
MES JOB #:	N/A	DRAWN BY:	RYAN JALYNSKI
PLOT SCALE:	NOT TO SCALE	CHECKED BY:	ANURAG
PLOT DATE:	2/19/2020	DATE:	2/19/2020

PUBLIC LIGHTING AUTHORITY OF DETROIT

UNDERGROUND STRUCTURES DETAILS
STANDARD DETAIL
CITY OF DETROIT
WAYNE COUNTY, MI

GRAPHIC SCALE

NOT TO SCALE

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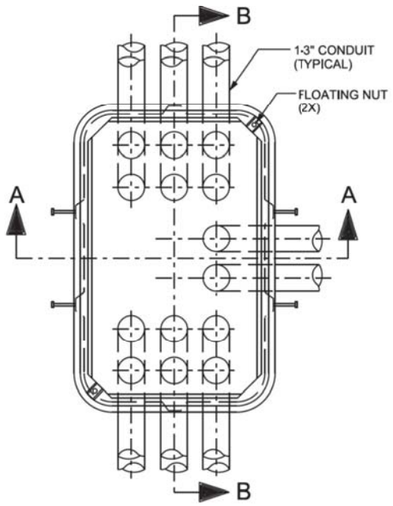
SHEET INFORMATION

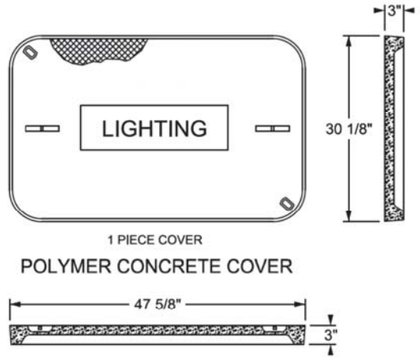
DT-15.4

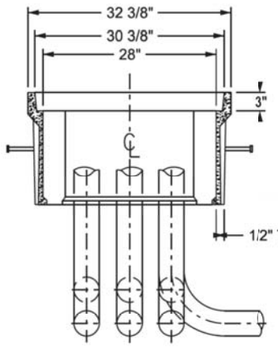
TOTAL SHEETS	SHEET NO.
06	04

POLYMER CONCRETE MANHOLE ASSEMBLY
30" X 48" X 24" DEEP

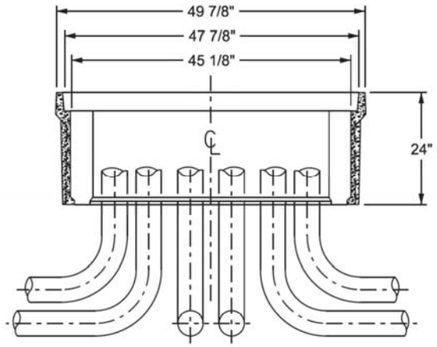


PLAN VIEW





SECTION A-A

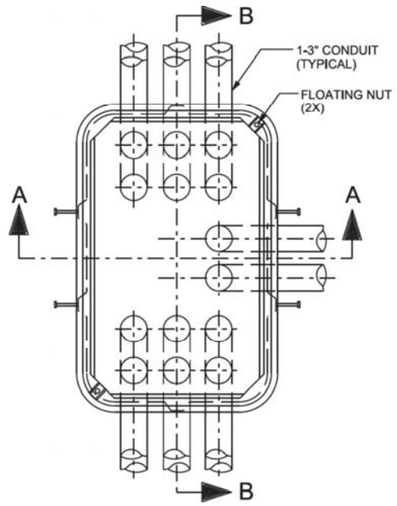


SECTION B-B

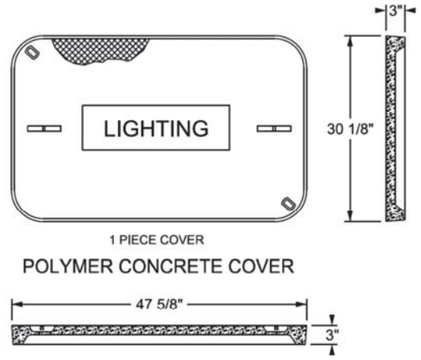
ASSEMBLY TO HAVE AN OPEN BOTTOM
LOAD RATING: ANSI TIER 15/22 - 20K POUNDS

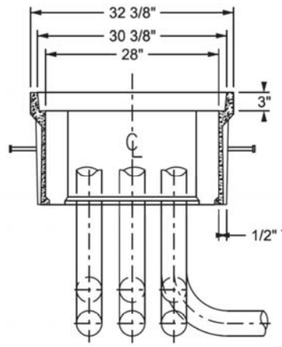
NOT TO SCALE

POLYMER CONCRETE MANHOLE ASSEMBLY
30" X 48" X 24" DEEP

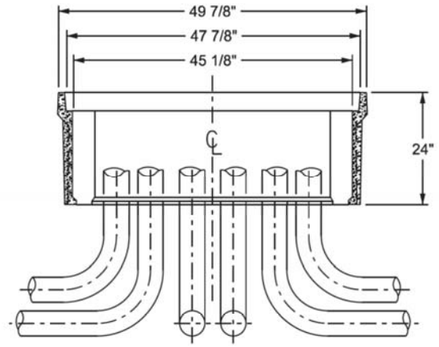


PLAN VIEW





SECTION A-A



SECTION B-B

ASSEMBLY TO HAVE AN OPEN BOTTOM
LOAD RATING: ANSI TIER 15/22 - 20K POUNDS

NOT TO SCALE

METRO ENGINEERING SOLUTIONS
2021 S. SCHAEFER HWY.
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PLA STREETLIGHTING			
MES JOB #:	N/A	DRAWN BY:	RYAN JALYNSKI
PLOT SCALE:	NOT TO SCALE	CHECKED BY:	ANURAG
PLOT DATE:	2/19/2020	DATE:	2/19/2020

PUBLIC LIGHTING AUTHORITY OF DETROIT

UNDERGROUND STRUCTURES DETAILS
STANDARD DETAIL
CITY OF DETROIT
WAYNE COUNTY, MI

GRAPHIC SCALE
NOT TO SCALE

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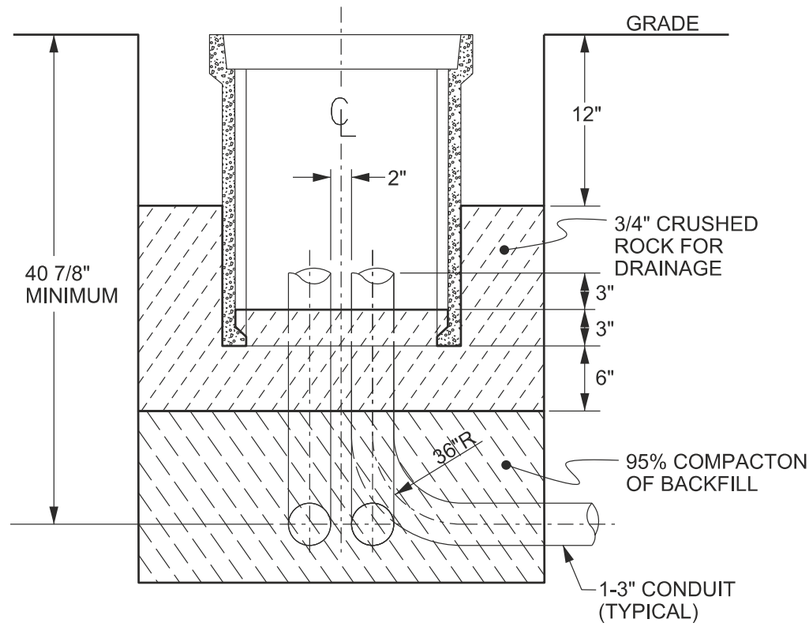
SHEET INFORMATION

DT-15.5	TOTAL SHEETS	SHEET NO.
	06	05

POLYMER CONCRETE STRUCTURE INSTALLATION



NOT TO SCALE

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PLA STREETLIGHTING			
MES JOB #:	N/A	DRAWN BY:	RYAN JALYNSKI
PLOT SCALE:	NOT TO SCALE	CHECKED BY:	ANURAG
PLOT DATE:	2/19/2020	DATE:	2/19/2020

PUBLIC LIGHTING AUTHORITY OF DETROIT

UNDERGROUND STRUCTURES DETAILS
STANDARD DETAIL
CITY OF DETROIT
WAYNE COUNTY, MI

GRAPHIC SCALE
NOT TO SCALE

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SHEET INFORMATION		
DT-15.6	TOTAL SHEETS	SHEET NO.
	06	06