

Special Meeting 6:00 p.m., Tuesday, January 29, 2019 Conference Room 23600 Liberty Street Farmington, MI 48335

SPECIAL MEETING AGENDA

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- 2. Approval of Agenda
- 3. Public Comment
- 4. Oakland Street Project
- 5. Other Business
- 6. Council Comment
- 7. Adjournment

Farmington City Council Staff Report	Council Meeting Date: 1-29-19	Item Number 4
Submitted by: City Manager		
Agenda Topic: Proposed Oakland Street Proje	ect	
Proposed Motion: Move to approve the propo	osed Oakland Street project	
Background: The Oakland Street Project replacement, additional 16-18 parking spaces, s of AT&T utility poles, street lights and landscaping		
Materials: Engineering design of proposed Oak	land Street Project	

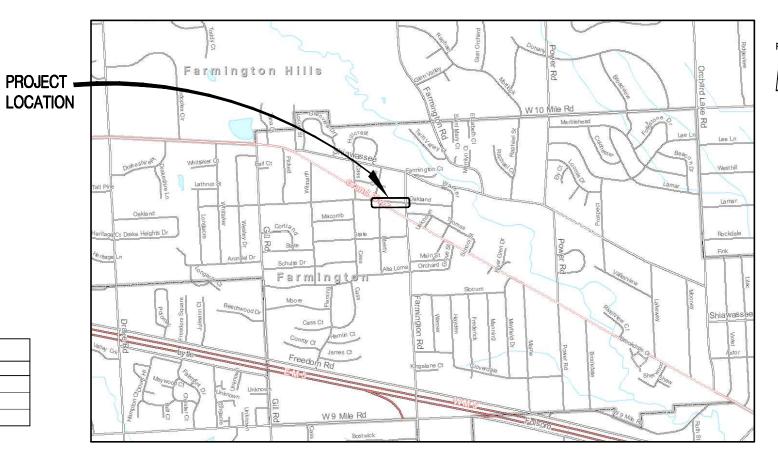
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CITY OF FARMINGTON OAKLAND COUNTY, MICHIGAN OAKLAND STREET RECONSTRUCTION

	INDEX OF SHEETS
SHEET NO.	DESCRIPTION
1	COVER
2	LEGEND
	ROAD & UTILITIES
3-4	GENERAL NOTES & DETAILS
5	REMOVAL PLAN
6	CONSTRUCTION PLAN
7	PROFILES
8	UTILITY PLAN
9-10	DETAILED GRADING
	LANDSCAPE
11	LANDSCAPE NOTES
12	PLANT CHARACTER IMAGES
13	MATERIAL CHARACTER IMAGES
14-15	PLANTING PLANS
16-17	LANDSCAPE MATERIALS
18-19	IRRIGATION PLANS
20-23	LANDSCAPE DETAILS
	ELECTRICAL
24	ELECTRICAL LEGEND & SYMBOLS
25	ELECTRICAL SITE LIGHTING PLAN
26	ELECTRICAL DETAILS & SCHEDULES
	DETAILS
27	OCWRC SOIL EROSION & SEDIMENTATION CONTROL DETAILS
28-29	WATER MAIN STANDARD DETAILS
30-31	SANITARY SEWER STANDARD DETAILS
32-33	STORM SEWER STANDARD DETAILS

PLAN NO.
*R-28-J
R-29-I
R-30-G

^{*} MDOT SPECIAL DETAIL



LOCATION MAP

GENERAL PROVISIONS

THE IMPROVEMENTS COVERED BY THESE PLANS SHALL BE DONE IN ACCORDANCE WITH THE PROPOSAL AND ACCOMPANYING SPECIFICATIONS FOR THIS PROJECT INCLUDING THE 2012 MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION, THE MICHIGAN MANUAL ON TRAFFIC CONTROL DEVICES 2011 EDITION, AND ACCORDING TO THE MOOT LOCAL AGENCY PROGRAMS GUIDELINES FOR GEOMETRICS, 3R, DATED 08/28/08.

THE LOCATION OF ALL PUBLIC UTILITIES SHOWN ON THESE PLANS IS TAKEN FROM THE BEST AVAILABLE DATA. CITY OF FARMINGTON WILL NOT BE RESPONSIBLE FOR ANY OMISSION OR VARIATION FROM THE LOCATIONS SHOWN. PURSUANT TO ACTS 173 & 174 OF THE P.A. OF 2013, AS A CONDITION OF THIS CONTRACT, NOTICE SHALL BE GIVEN TO MISS DIG PRIOR TO UNDERGROUND WORK TO BE PERFORMED IN ACCORDANCE WITH THIS CONTRACT, PHONE (800) 482-7171 (OR 811). UTILITY SERVICE CONNECTIONS ARE NOT SHOWN ON THE PLANS AND ARE NOT THE RESPONSIBILITY OF THE CITY OF FARMINGTON.

APPLICATION DATE PERMITS APPROVAL DATE 7/6/18 MDEQ WATER MAIN PA 399 7/20/18 MDOT ROW PERMIT OCWRC SOIL EROSION CONTROL PERMIT

CITY OF FARMINGTON CITY COUNCIL

STEVEN G. SCHNEEMANN

MAYOR •

SARA BOWMAN

MAYOR PRO-TEM •

WILLIAM GALVIN
JOE LaRUSSA
MARIA TAYLOR
COUNCIL MEMBERS

DAVID MURPHY
• CITY MANAGER •



UTILITY PATTERN WATER & SEWER UTILITY SYMBOLS MISCELLANEOUS UTILITY SYMBOLS MISCELLANEOUS SYMBOLS REMOVAL LEGEND **EXISTING EXISTING EXISTING EXISTING** SIDEWALK REMOVAL _____. ____. ____. ____. ____. ____. ___. ___. ___. ___. ___. ____. ELECTRICAL * OST STORM MANHOLE GUY WIRE RIPRAP 34000 Plymouth Road Livonia, MI 48150 P (734) 522-6711 | F (734) 522-6427 Ħ \emptyset_{GP} SQUARE CATCH BASIN GUY POLF SIGN HMA SURFACE REMOVAL GAS\OIL ROUND CATCH BASIN \emptyset_{II} FLOW DIRECTION UTILITY POLE OHM-ADVISORS COM ______. (COMPANY) CABLE/TEL. . _____. . ____. CABLE/TELEPHONE * PAVEMENT REMOVAL -\$\frac{1}{4}i UTILITY POLE W/LIGHT STUMP # ______FIBER_OPTIC______ FIBER_OPTIC * CULVERT W/O END SECTION LIGHT/DECOR LAMP POLE WETLAND COLD MILLING HMA SURFACE -英-CULVERT W/END SECTION FLOOD LIGHT ₹, CONIFEROUS TREE CL 1 1" TO 5" CL 2 6" TO 17" ____12" <u>wm</u> ____ _ _ _ _ _ _ WATER HMA BASE CRUSHING AND SHAPING Os SANITARY MANHOLF GAS VALVE DECIDUOUS TREE ______12"_SAN__________SANITARY 6 © CLEAN OUT GAS VENT CONIFEROUS SHRUB EXCAVATION, EARTH, MODIFIED _____<u>12" STM ____</u> ___ STORM G DECIDUOUS SHRUB GATE VALVE & WELL GATE VALVE & BOX $\langle \hat{G} \rangle$ SOIL BORING GAS RISER CURB AND GUTTER, REM **PROPOSED** -XXXXXXXX W WATER STOP BOX **\(\rightarrow \)** TRAFFIC SIGNAL SECTION CORNER \otimes TREE, REM STORM/SANITARY/WATER ∇ FIRE HYDRANT MONUMENT ф-PEDESTRIAN RISER PRIMARY UTILITY WILL HAVE A CONTINUOUS LINESTYLE, WITH THE SECONDARY UTILITY MATCHING ITS RESPECTIVE EXISTING UTILITY LINESTYLE S-XXXXXX SALVAGE MP METER PIT IRON ROD/PIPE (E) TRANSFORMER PAD Φ Οu PK NAIL B-XXXXXX BULKHEAD PRIVATE UTILITY MANHOLE *OH = OVERHEAD , UG = UNDERGROUND (SH) R)X R SPRINKLER HEAD BENCHMARK RAILROAD CROSSING *****ВМ# A-XXXXXX ABANDON **ROW PATTERN** IRRIGATION VALVE ΔTP# TRAVERSE POINT E ELECTRIC METER R-XXXXXX REMOVE MAIL/NEWSPAPER BOX PB PHONE BOOTH **EXISTING PROPOSED** ADJ-XXXXXX ADJUST TS FLAG POLE TRAFFIC SIGNAL CONTROLLER ROW STORM MANHOLE \bigcirc HAND HOLE REL-XXXXXXX RELOCATE INLET/CATCH BASIN (E) HAZARDOUS OR FLAMMABLE MATERIAL USED WITH UNDERGROUND GAS & ELECTRIC RISER ELECTRICAL LINES REC-XXXXXXX RECONSTRUCT CULVERT END SECTION \Diamond PROPERTY/PARCEL TELEPHONE RISER USED WITH TELEPHONE & CAUTION — CRITICAL UNDERGROUND UTILITY FIBER OPTIC LINES **©** R B/O-XXXXXX REMOVE BY OTHERS SANITARY MANHOLE CABLE TV RISER **PROPOSED** \bigcirc GATE VALVE & WELL MONITORING WELL ADJ B/O-XXXXXX ADJUST BY OTHERS **PROPOSED** GATE VALVE & BOX UNDERGROUND MARKER REL B/O-XXXXXX RELOCATE BY OTHERS TAPPING SLEEVE VALVE & WELL 1,1,H,1,H,H SIGN TAPPING SLEEVE VALVE & BOX TOPO PATTERN IF NECESSARY FOR CLARITY FLOW DIRECTION FIRE HYDRANT **EXISTING** S SALVAGE STRUCTURE NUMBER WM SAN STM ₿ BULKHEAD ADA SIDEWALK RAMP A ABANDON © CLEARING DETECTABLE WARNING SURFACE R REMOVE (REL) RELOCATE (REC) RECONSTRUCT RAILROAD REL B/O RELOCATE BY OTHERS CITY OF FARMINGTON OAKLAND STREET RECONSTRUCTION (ADJ B/O) ADJUST BY OTHERS REAL ESTATE SYMBOLS **PROPOSED** SPECIAL LEGEND GRADING LIMIT (SLOPE STAKE) _____ CONTIGUOUS PROPERTY SYMBOL _ _ _ CENTERLINE OF DITCH PARCEL NUMBER BOX NO ROW IMPACTS GUARDRAIL

AWING PATH: P:\0101_0125\0111180030_Oakland_St_Reconstruct\Drawings\Civi\Misc\180030\LEG.dwg_Ja

GENERAL

THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE 2012 MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION EXCEPT AS NOTED HEREIN AND IN THE CONTRACT DOCUMENTS.

LIMITATIONS ON PRIVATE WORK: DURING CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL NOT PERFORM WORK BY PRIVATE AGREEMENT WITH PROPERTY OWNERS ADJACENT TO THE PROJECT. UNLESS GIVEN WRITTEN CONSENT OF THE ENGINEER.

THE CONTRACTOR SHALL CONDUCT OPERATIONS IN SUCH A MANNER TO COMPLY WITH ALL FEDERAL, STATE AND CITY CODES FOR NOISE LEVELS VIBRATIONS OR ANY OTHER RESTRICTIONS WHILE REMOVING PAVEMENT OR FOR ANY OTHER CONSTRUCTION OPERATIONS WITHIN THIS CONTRACT TO BE

WHEN THE CONTRACTOR FAILS TO PERFORM THE DUTIES AS CALLED FOR ON THESE PLANS AND IN THE CONTRACT, THE ENGINEER MAY REQUIRE CITY FORCES TO PERFORM WORK, WITH OR WITHOUT NOTIFICATION TO THE CONTRACTOR OR THE SURETY. THE CONTRACTOR WILL BE CHARGED EQUIPMENT RENTAL RATES AS ESTABLISHED BY THE CITY. TIME CHARGED TO THE CONTRACTOR SHALL BE FROM THE TIME THAT THE WORKFORCE AND EQUIPMENT LEAVE THE CITY YARD TO THE TIME THAT THEY

ALL AREAS DISTURBED BY THE CONTRACTOR AND/OR HIS SUBCONTRACTOR SHALL BE SEEDED AS PECIFIC OR DIRECTED BY THE ENGINEER. NO ADDITIONAL PAYMENT OR COMPENSATION WILL BE ALLOWED FOR THIS ACTIVITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE PROPERTY BEYOND THE AREAS OF WORK, INCLUDING EXISTING FENCING, LAWN, TREES, SPRINKLER

THE CONTRACTOR SHALL RELOCATE DISTURBED ORNAMENTAL OBJECTS AS DIRECTED BY THE ENGINEER, NO ADDITIONAL PAYMENT OR COMPENSATION WILL BE ALLOWED FOR THIS ACTIVITY.

DISTURBED AREAS SHALL BE RESTORED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER, AREAS FOR SEEDING AND SODDING ARE INDICATED ON THE PLANS.
MULCH BLANKET AND HIGH VELOCITY MULCH BLANKET SHALL BE PLACED IN ACCORDANCE TO SUBSECTION 816.03.H OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION.

ALL AREAS DISTURBED BY THE CONTRACTOR AND/OR HIS SUBCONTRACTOR BEYOND THE SLOPE STAKE LINE OF THE PROJECT SHALL BE SODDED OR SEEDED AS SPECIFIED OR DIRECTED BY THE ENGINEER, NO ADDITIONAL PAYMENT OR COMPENSATION WILL BE ALLOWED FOR THIS ACTIVITY.

THE CONSTRUCTION OF ALL LONGITUDINAL JOINTS IN THE HMA LEVELING AND WEARING COURSES SHALL BE CONSTRUCTED WITH THE USE OF A JOINT MATCHING SHOE.

LINTIL THE FINAL ACCEPTANCE OF THE PROJECT ANY RANDOM IRREGULARLY CRACKED NEW CONCRETE CURB & GUTTER, CONCRETE PAYEMENT, OR SIDEWALK THAT OCCURS SHALL BE REMOVED AND REPLACED AT THE EXPENSE OF THE CONTRACTOR PRIOR TO OPENING THE PAYEMENT TO

THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING PUBLIC OR PRIVATE UTILITIES DURING THE CONSTRUCTION OF THIS PROJECT. ADEQUATE CARE SHALL BE TAKEN AT ALL TIMES.

ALL DRIVEWAY OPENINGS SHALL CONFORM TO MDOT SPECIAL DETAIL R-29-H, DETAIL L OR DETAIL M, EXCEPT THE LAYOUT SHALL BE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

THE GRADING OF AGGREGATE SHOULDERS SHALL BE AS DIRECTED BY THE ENGINEER.

AT LOCATIONS WHERE BARRIER CURBS TERMINATE THE HEIGHT OF THE BACK OF CURB SHALL ISITION FROM FULL HEIGHT TO A HEIGHT OF ONE (1) INCH OVER 10 (10) FEET OR AS DIRECTED BY THE ENGINEER.

ANY PERMANENT SIGNS REQUIRING RELOCATION DUE TO THE CONTRACTOR'S OPERATIONS SHALL BE SALVAGED AND RESET BY THE CONTRACTOR AT LOCATIONS DESIGNATED BY THE ENGINEER. SIGNS AND POST DAMAGED DURING THE REMOVAL AND STORAGE OPERATION SHALL BE REPLACED WITH NEW SIGNS

THE CONTRACTOR SHALL NOT PARK ANY VEHICLES OR STORE ANY FOLIPMENT AND MATERIALS ON PRIVATE PROPERTY. ALL WORK SHALL BE CONFINED TO THE CONSTRUCTION LIMITS SHOWN ON THE PLANS UNLESS AUTHORIZED IN ADVANCE BY THE ENGINEER.

FARTH DISTURBANCE LIMITS FOR THIS PROJECT ARE SHOWN ON THE PLANS. RESTORATION MEASURES EARTH DISTORMANCE LIMITS FOR THE PROVED ARE SHOWN ON THE PURIS, RESTORATION MEASURES.

HAVE BEEN INCLUDED IN THE PLANS FOR THE APPROVED AREAS OF DISTURBANCE. THE CONTRACTOR SHALL SUBMIT AN EARTH CHANGE PLAN FOR ANY WORK BEYOND THE APPROVED LIMITS TO THE ENGINEER TO REVIEW FOR APPROVAL PRIOR TO THE DISTURBANCE. ALL COSTS FOR OBTAINING AND EXECUTING AN APPROVED EARTH CHANGE PLAN, INCLUDING RESTORATION, SHALL BE AT THE CONTRACTOR'S SOLE EXPENSE.

THE CONTRACTOR SHALL MAINTAIN ACCESS FOR POSTAL SERVICE AND REFUSE COLLECTION TO ALL PROPERTIES AT ALL TIMES. ACCESS SHALL ALSO BE MAINTAINED FOR EMERGENCY SERVICES, INCLUDING POLICE, FIRE AND EMERGENCY RESPONSE PERSONNEL AND EQUIPMENT, AT ALL TIMES.

THE CONTRACTOR SHALL PROTECT AND NOT DAMAGE THE NEW CONCRETE ON FARMINGTON ROAD, AS WELL AS THE NEW HMA SURFACE ON GRAND RIVER AVENUE.

REMOVALS

SAW CUTTING FOR PAVEMENT REMOVAL AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER SHALL BE TO THE DEPTH REQUIRED FOR PROPER REMOVAL OF PAVEMENTS OR CURB.

SAWING DEPTH SHALL BE ADEQUATE TO PREVENT SPALLING, CHIPPING, OR DAMAGE TO EXISTING PAVEMENT EDGES LEFT IN PLACE AS DIRECTED BY THE ENGINEER.

REMOVALS SHALL BE DONE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER IN

SIDEWALK REMOVAL LIMITS SHALL BE TO THE NEAREST PANEL. PARTIAL PANEL REMOVALS ARE NOT ACCEPTABLE, UNLESS APPROVED BY THE ENGINEER.

CURB SECTION REMOVALS SHALL BE TO THE NEAREST JOINT. PARTIAL CURB SECTION REMOVALS

THE CONTRACTOR SHALL REMOVE THE EXISTING PAVEMENT SURFACE, AS DIRECTED BY THE ENGINEER, TO A SUFFICIENT DEPTH IN ORDER TO CONSTRUCT THE PROPOSED PAVEMENT CROSS-SECTION.

PAVEMENT REMOVAL AS SHOWN ON THE PLANS SHALL BE AT THE DISCRETION OF THE ENGINEER. IF IN HIS/HER JUDGEMENT, AREAS OF PAVEMENT MAY BE LEFT IN PLACE, OR ADDITIONAL AREAS ADDED, TO PROVIDE THE PROPER CROSS-SECTION AND BASE, ADJUSTMENTS CAN BE MADE IN THE

SAW CUTS ARE NOT PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE REMOVAL ITEMS.

ALL SIGN SALVAGES SHALL BE RESET IMMEDIATELY.

MISS DIG RULES APPLY PRIOR TO SAW CUTTING AND REMOVAL IF SHALLOW LEADS ARE EXPECTED OR ENCOUNTERED, HAND DIGGING OR POT HOLING OUTSIDE OF THE PAYEMENT, BEHIND THE SECTION OF CURB REMOVAL SHALL BE CONDUCTED AT NO ADDITION EXPENSE TO THE OWNER.

UTILITY NOTES

- 1. FOR PROTECTION OF UNDERGROUND UTILITIES AND CONFORMANCE WITH PUBLIC ACT 53, 1974. THE CONTRACTOR SHALL DIAL 1-800-482-7171 OR 811 A MINIMUM OF THREE FULL WORKING DAYS, EXCLUDING SATURDAYS, SUNDAYS AND HOLIDAYS, PRIOR TO BEGINNING EACH EXCAVATION IN AREAS WHERE PUBLIC UTILITIES HAVE NOT BEEN PREVIOUSLY LOCATED. MEMBERS OF THE "MISS DIG" ALERT SYSTEM WILL BE ROUTINELY NOTIFIED. THIS DOFS NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING UTILITY OWNERS WHO MA NOT BE PART OF THE "MISS DIG" ALERT SYSTEM.
- 2 THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING PUBLIC OR PRIVATE THE COMPANDION WHILE BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING PUBLIC OR PRIVATE UTILITIES DURING THE CONSTRUCTION OF THIS PROJECT. ADEQUATE CARE SHALL BE TAKEN AT ALL TIMES.
- 3. THE LOCATIONS SHOWN FOR ALL PUBLIC UTILITIES, INCLUDING WATER SERVICE AND SANITARY SEWER LEADS ARE BASED ON BEST AVAILABLE INFORMATION. NO GUARANTEE IS MADE REGARDING THE ACCURACY OF THIS INFORMATION. THE CONTRACTOR SHALL PERFORM HIS OWN INVESTIGATION(S) IF HE DESIRES TO IN PERFORMING THE WORK OF THIS PROJECT.
 PAYMENT FOR 'EXPLORATORY EXCAVATION, TRENCH' WILL NOT BE PAID FOR UNLESS APPROVED IN ADVANCE BY THE ENGINEER
- 4. ALL UTILITY WORK, INCLUDING STORM SEWER, SANITARY SEWER AND WATER MAIN, SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF FARMINGTON'S STANDARD DETAILS.
- THE CONTRACTOR SHALL PROVIDE A MINIMUM 48—HOUR WRITTEN NOTICE TO ALL PROPERTY OWNERS PRIOR TO THE CLOSURE OF DRIVEWAYS OR THE INTERRUPTION OF CITY WATER SERVICE IN THE EVENT OF A WATER MAIN SHUT-DOWN
- THE CONTRACTOR SHALL NOTE THAT A NEW 8-INCH WATER MAIN IS BEING CONSTRUCTED ALONG OAKLAND AVENUE. THE NEW WATER MAIN SHALL BE DISINFECTED AND TESTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. UPON PASSING BOTH THE PRESSURE TEST(S) AND BACTERIOLOGICAL TEST(S), THE CONTRACTOR SHALL TIE IN THE NEW WATER MAIN AS SHOWN ON THE PLANS. ONCE THE NEW MAIN IS IN SERVICE, THE CONTRACTOR SHALL TRANSFER THE EXISTING WATER SERVICES FROM THE 4-INCH WATER MAIN TO THE NEW MAIN IS IN SERVICE THAT IF GALVANIZED OR STREET SERVICE SERVICE WATER MAIN THE CONTRACTOR SHALL NOTE THAT IF GALVANIZED OR STEEL SERVICE LEADS ARE ENCOUNTERED, NEW COPPER SERVICES WILL BE INSTALLED. ONCE THE SERVICE LEADS HAVE BEEN TRANSFERRED TO THE NEW 8-INCH WATER MAIN, THE 4-INCH WATER MAIN WILL BE REMOVED AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
- 7. THE CONTRACTOR SHALL NOTE THAT THERE ARE SELECTIVE SANITARY SEWER REPAIRS AND CONSTRUCTION ALONG OAKLAND AVENUE. SOME OF THIS WORK MUST BE PRECEDED BY SEWER CLEANING AND VIDEO RECORDING IN ORDER TO VERIFY THE LOCATION OF THE NEEDED REPAIRS. THEREFORE, THE FOLLOWING SANITARY SEWER SEGMENTS WILL REQUIRE CLEANING
 - SANITARY MANHOLE 2046 TO SANITARY MANHOLE 2056

THE ACTUAL WORK PERFORMED ON THE SANITARY SEWERS INCLUDING CIPP LINING, MAY CHANGE BASED ON THE FINDINGS OF THE VIDEO INSPECTIONS, ALL WORK MUST BE APPROVED IN ADVANCE BY THE ENGINEER.

- 10. THE CONTRACTOR SHALL NOTE THAT THERE ARE SELECTED LOCATIONS WHERE STORM STRUCTURES ARE BEING REMOVED AND REPLACED SO AS TO ALION WITH THE CONSTRUCTION OF NEW CURB OR ALLOW FOR THE PLACEMENT OF CONCRETE SPILLWAYS. AT THESE LOCATIONS, THERE MAY BE INSTANCES WHERE THE WORK MAY NEED TO BE MODIFIED BY THE ENGINEER TO DEAL WITH SPECIFIC SITE CONDITIONS, INCLUDING ADJUSTING THE LOCATION AND/OR SPECIFIC WORK THAT WILL NEED TO BE PERFORMED. IF THIS IS REQUIRED IN THE OPINION OF THE ENGINEER, ALL WORK WILL BE PERFORMED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND PAID FOR AT THE UNIT PRICE(S) FOR THE ACTUAL WORK
- 11. THE CONTRACTOR SHALL NOTE THAT SELECTED LOCATIONS ARE BEING IDENTIFIED FOR INSTALLATION OF "SUBGRADE UNDERDRAIN, 6 INCH." UNLESS OTHERWISE SPECIFIED ON THE PLANS OR AS DIRECTED BY THE ENGINEER, AT THESE LOCATIONS, PIPE SEGMENTS EQUALING 25 FEFT OF 6-INCH SUBGRADE UNDERDRAIN SHALL BE INSTALLED. THIS PROJECT IS NOT PROPOSING THE CONSTRUCTION OF "CONTINUOUS" SUBGRADE UNDERDRAIN.
- 12. WHERE STORM SEWER INLETS ARE TO BE PLACED IN F2 AND F4 CURB AND GUTTER, EAST JORDAN IRON WORKS 7045 CASTINGS AND TYPE "M2" SINUSOIDAL COVERS ARE TO BE USED. AT ALL OTHER LOCATIONS WHERE INLETS ARE TO BE CONSTRUCTED, EAST JORDAN IRON WORKS 5080 CASTINGS AND TYPE "M2" SINUSOIDAL COVERS ARE TO BE USED.
- 13. THE RECONSTRUCTION OF STRUCTURES, BEYOND "STRUCTURE ADJUSTMENT", SHALL BE AS DIRECTED BY THE ENGINEER.

LAWN SPRINKLER SYSTEMS AND LANDSCAPING

IT IS ANTICIPATED THAT THE CONTRACTOR WILL COME ACROSS EXISTING IRRIGATION SYSTEMS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE OWNERS OF EXISTING LAWN SPRINKLER SYSTEMS AND/OR LANDSCAPING (IN WRITING WITH A COPY SENT TO THE ENGINEER) TWO WEEKS IN ADVANCE OF ANY WORK TO BE DONE THAT WILL AFFECT THOSE SYSTEMS AND/OR LADSCAPING. IF ATM WORK ID BE DONE HAI WILL AFFECT INDSC STSIEMS AND/OR LADSCAPING. IF THE PROPERTY OWNER FAILS TO RELOCATE THE LAWN SPRINKLER SYSTEM PRIOR TO THE CONTRACTOR BEGINNING WORK, AND IF THE CONTRACTOR CUTS THE SYSTEM DURING CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE REPAIRS OF THE SPRINKLER SYSTEM WITH THE INSPECTOR. IF THE SPRINKLER SYSTEM IS PROPERTY MARKED BY THE PROPERTY OWNER, AND THE CONTRACTOR DAMAGES THE SYSTEM, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PERFORM THE NECESSARY REPAIRS AT THE CONRACTOR'S COST. IF THE PROPERTY OWNER FALLS TO RELOCATE THE LANDSCAPING PRIOR TO THE CONTRACTOR BEGINNING WORK, THE CONTRACTOR SHALL CAREFULLY SALVAGE THE LANDSCAPING ITEMS AND STOCKPILE THEM ON THE PROPERTY OWNERS PROPERTY FOR THE

FLAGGING OPERATIONS

THE CONTRACTOR AND ANY SUBCONTRACTORS WHO WILL BE USING A FLAGGING OPERATION FOR THIS PROJECT SHALL BE REQUIRED TO PROVIDE SATISFACTORY DOCUMENTATION PROVING THAT THEY HAVE MET THE MINIMUM REQUIREMENTS SET FORTH IN SECTION 812. OF THE 2012 MODT STANDARD SPECIFICATIONS FOR CONSTRUCTION. FAILURE TO PROVIDE DOCUMENTATION WILL RESULT IN THE ROAD AUTHORITY WITHHOLDING PAYMENT FOR FLAGGING OPERATIONS.

TREE PRESERVATION

TREE REMOVAL SHALL NOT COMMENCE IN ANY GIVEN AREA UNTIL AFTER APPROVAL. TO DO SO IS GIVEN BY THE ENGINEER. TREES REMOVED BY THE CONTRACTOR THAT WERE NOT CLEARLY MARKED AND INTENDED FOR REMOVAL SHALL BE REPLACED WITH 2 1/2" TO 3" DIAMETER PLANTINGS OF A SIMILAR SPECIES AT THE CONTRACTOR'S EXPENSE, REPLACEMENT TREES SHALL BE PROVIDED SUCH THAT THE SUM OF THE DIAMETERS OF THE REPLACEMENT TREES EQUALS THE DIAMETER OF THE TREES REMOVED. TEMPORARY FENCE SHALL BE ERECTED AROUND TREES THAT ARE TO BE SAVED.

HAND FINISHING

HAND FINISHING OF CONCRETE POURS TO BE STRUCK OFF AND CONSOLIDATED BY HAND METHODS WILL BE PERMITTED ON VARIABLE WIDTH LANES AND LANES FORMED BY FLEXIBLE FORMS FO SHORT RADIUS CURVES AS DIRECTED BY THE ENGINEER.

SOIL EROSION MEASURES

PLACE PERMANENT SEED AND MULCH AS SOON AS POSSIBLE. CRITICAL DITCH GRADES SHOULD BE PROTECTED WITH EITHER SOD OR SEED/MULCH AS DIRECTED BY THE ENGINEER. REFER TO PLANS AND STANDARD DETAILS FOR SOIL EROSION DETAILS.

CONCRETE PAVEMENT/CURB AND GUTTER

THE CONCRETE MIX SHALL BE GRADE P1 IN ACCORDANCE WITH SECTION 601 OF THE 2012 MDOT

ADJUSTING MONUMENT BOXES

IT IS THE INTENT THAT ALL GOVERNMENT CORNERS ON THIS PROJECT BE PRESERVED AND THAT, WHERE NECESSARY, MONUMENT BOXES BE PLACED OR ADJUSTED, WHETHER SHOWN OR NOT. PRESERVING MONUMENT BOXES SHALL BE PERFORMED IN ACCORDANCE WITH THE MICHIGAN DEPARTMENT OF TRANSPORTATION 2012 STANDARD SPECIFICATIONS FOR CONSTRUCTION.

DUST CONTROL

THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING DUST ON THE PROJECT BY SPRAYING WATER ON ANY AGGREGATE OR UNRESTORED SURFACES AS NEEDED OR AS REQUESTED BY THE ENGINEER ALL COSTS FOR THIS OPERATION SHALL BE INCLUDED CONTRACT PAY ITEMS ADN WILL NOT BE PAID FOR SEPARATELY.

SIDEWALK

ADDITIONAL SIDEWALK MAY BE ADDED BY THE ENGINEER TO THE SCOPE OF THE PROJECT PRIOR TO CONSTRUCTION. ANY SIDEWALK DAMAGED BY THE CONTRACTOR NOT MARKED FOR REMOVAL ON THE PLANS SHALL BE REPLACED AT THE COST OF THE CONTRACTOR.

UTILITIES

THE FOLLOWING LITHLITY COMPANIES HAVE FACILITIES WITHIN THE PROJECT LIMITS:

- 1. FOR WATER & SANITARY/STORM SEWER: CITY OF FARMINGTON ATT: CHUCK EUDY PH: 248-437-7250
- 2. FOR ELECTRIC: DETROIT EDISON ATTN: MEREDITH SALENS
- 3. FOR GAS: CONSUMERS ENERGY ATTN: CHRIS SCHNEIDER PH: (734) 513-6277
- 4. FOR TELEPHONE: AT&T ATTN: LARRY ZOAN PH: (248) 456-0821
- 5. FOR CABLE TELEVISION: BRIGHT HOUSE CABLE ATTN: BOB HENDZELL PH: (313) 538-3911 EXT. 1112

MISC PROJECT QUANTITIES

TOTAL LINIT DESCRIPTION 1 LSUM Mobilization, Max., 5% LSUM Audio Video Route Survey

LSUM Permit Fee s Allowance 1 LSUM Traffic Maintenance and Control Erosion Control, Silt Fence

Erosion Control, Inlet Protection, Fabric Dro

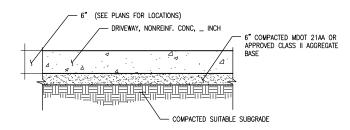
Livonia, MI 48150 P (734) 522-6711 | F (734) 522-642

OHM-ADVISORS COM

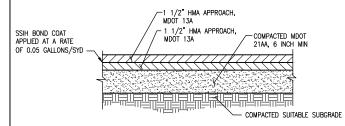
FARMINGTON STREET RECONSTRUCTION ⋖ర NOTES CITY OF F, OAKLAND §

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TYPICAL OAKLAND STREET PAVEMENT CROSS SECTION NTS

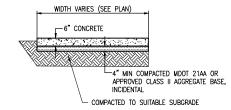


RESIDENTIAL DRIVE- NON-REINFORCED CONCRETE, 6" COMMERCIAL DRIVE- NON-REINFORCED CONCRETE, 8" CONCRETE DRIVEWAY CROSS SECTION NTS



NOTE: THE HMA SURFACE SHALL BE APPLIED IN 2 LIFTS

HMA DRIVEWAY CROSS SECTION



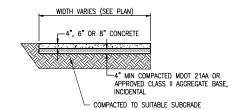
- NOTES:

 1. PREP SUBBASE WITH PRAMITOL "C" OR EQUAL APPROVED SOIL STERILANT PRIOR TO PAVING

 2. PLACE 1/4" CONTRACTION JOINTS AT 5' INTERVALS

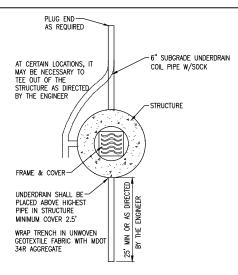
 3. PLACE 1/2" EXPANSION JOINTS AT 50' INTERVALS (MAX)

ADA RAMP CONCRETE SIDEWALK

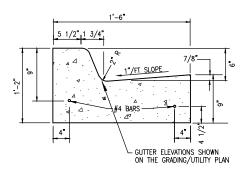


- PREP SUBBASE WITH PRAMITOL "C" OR EQUAL APPROVED SOIL STERILANT PRIOR TO PAVING
- 2. PLACE 1/4" CONTRACTION JOINTS AT 5' INTERVALS 3. PLACE 1/2" EXPANSION JOINTS AT 50' INTERVALS (MAX)

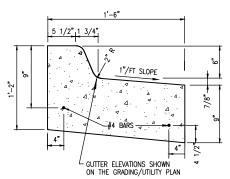
CONCRETE SIDEWALK



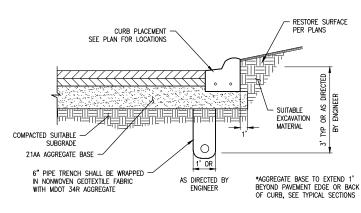
EDGE DRAIN DETAIL NTS



MDOT TYPE F2 CONCRETE CURB AND GUTTER DETAIL

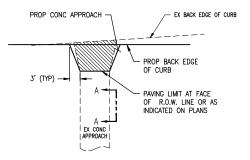


MDOT TYPE F2 R (MOD) CONCRETE CURB AND GUTTER DETAIL



EDGE DRAIN CROSS SECTION

NTS



HMA & CONCRETE DRIVE APPROACH (RESIDENTIAL) APPLIES: 33432 OAKLAND, 33424 OAKLAND, 33414 OAKLAND, 23801 FARMINGTON, 23715 FARMINGTON

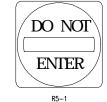
CHART FROM DRAKE RD -



R1-1 30"x30"

4-WY

R1-3 18"x9"



30"x30"





ONE WAY

ONE WAY

R6-1L 36"x12"

R6-1R 36"x12"



SIGNS

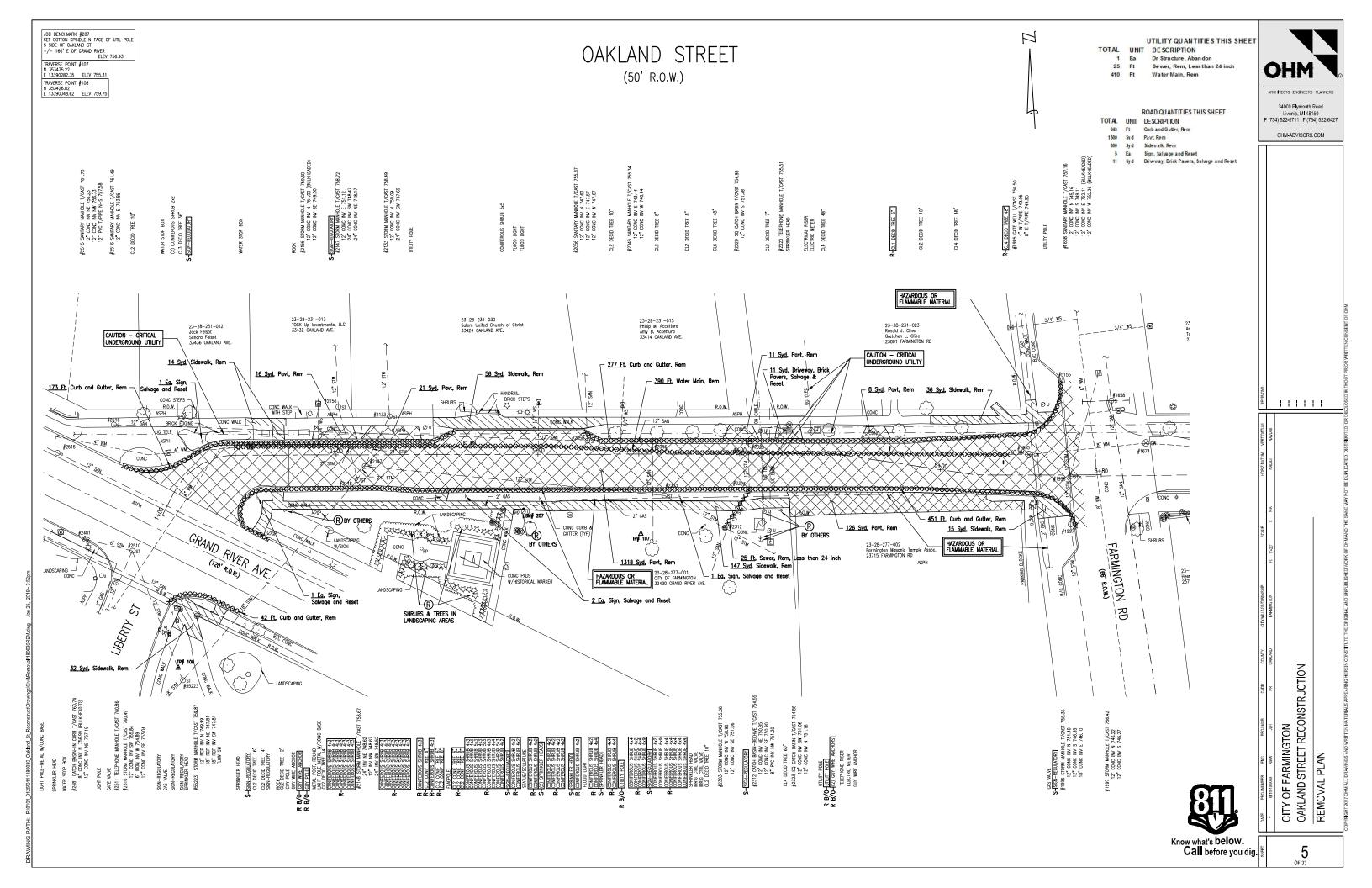
HMA APPLICATION ESTIMATE											
MIX TYPE	ITEM DESCRIPTION RATE OF APPL. EST THICKNESS LB/SYD (INCHES) PERFORMANCE GRADE LOCATION/NOTES										
(5E1)	HMA, 5E1	165	1.5	64-22	TOP COURSE AWI=260 MIN						
(4E1)	HMA, 4E1	220	2	64-22	LEVELING COURSE						
2C	HMA, 2C	440	4	58-22	BASE COURSE						
W	HMA, 13A	VARIES	VARIES	58-22	PLACE WEDGING COURSE AS DIRECTED BY THE ENGINEER TO ACHIEVE PROPOSED X-SLOPE SHOWN IN THE TYPICAL SECTIONS						
HMA APPROACH	HMA, 36A	163	3 (2 LIFTS)	58-22							

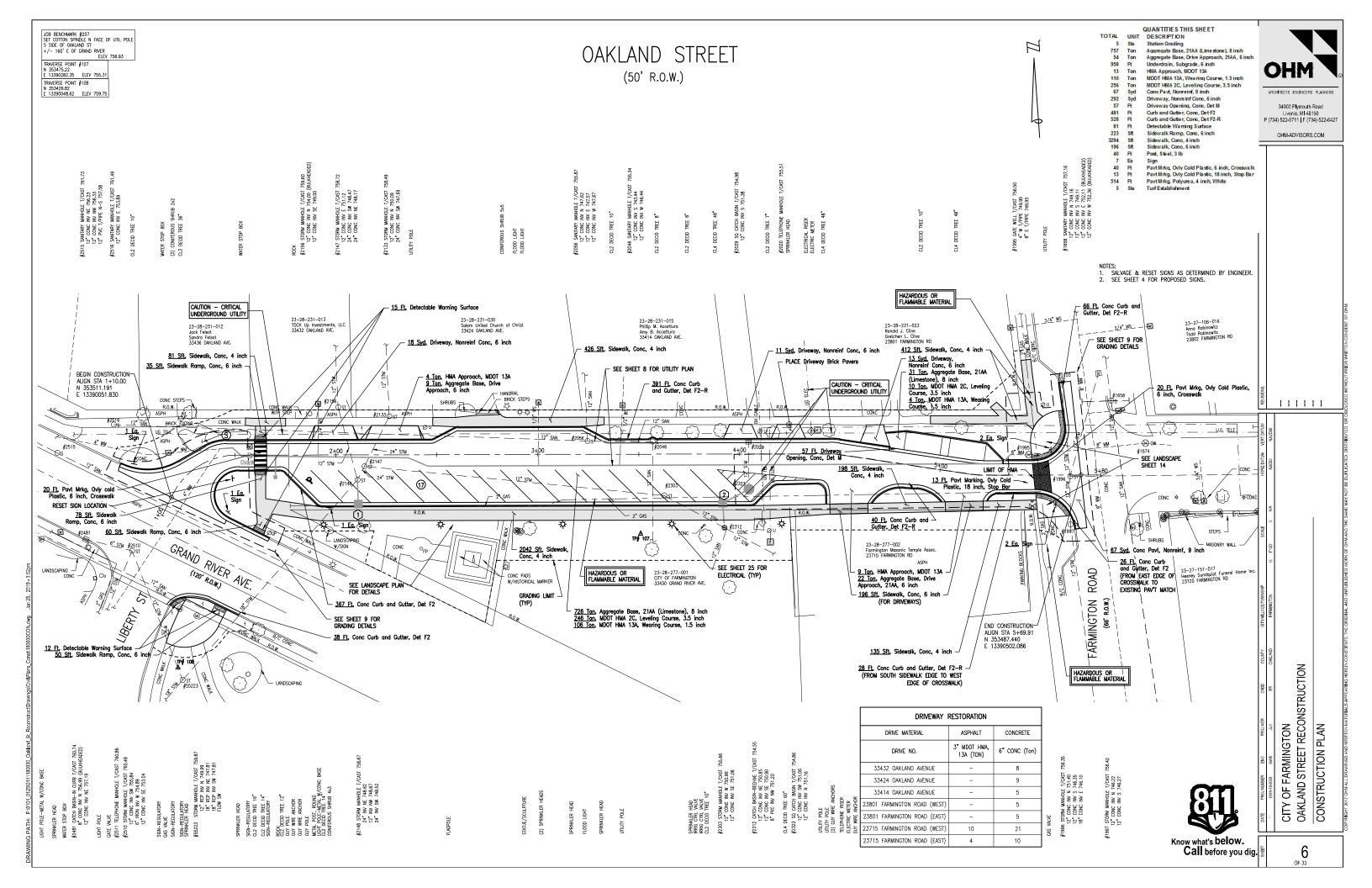
34000 Plymouth Road Livonia, MI 48150 P (734) 522-6711 | F (734) 522-642.

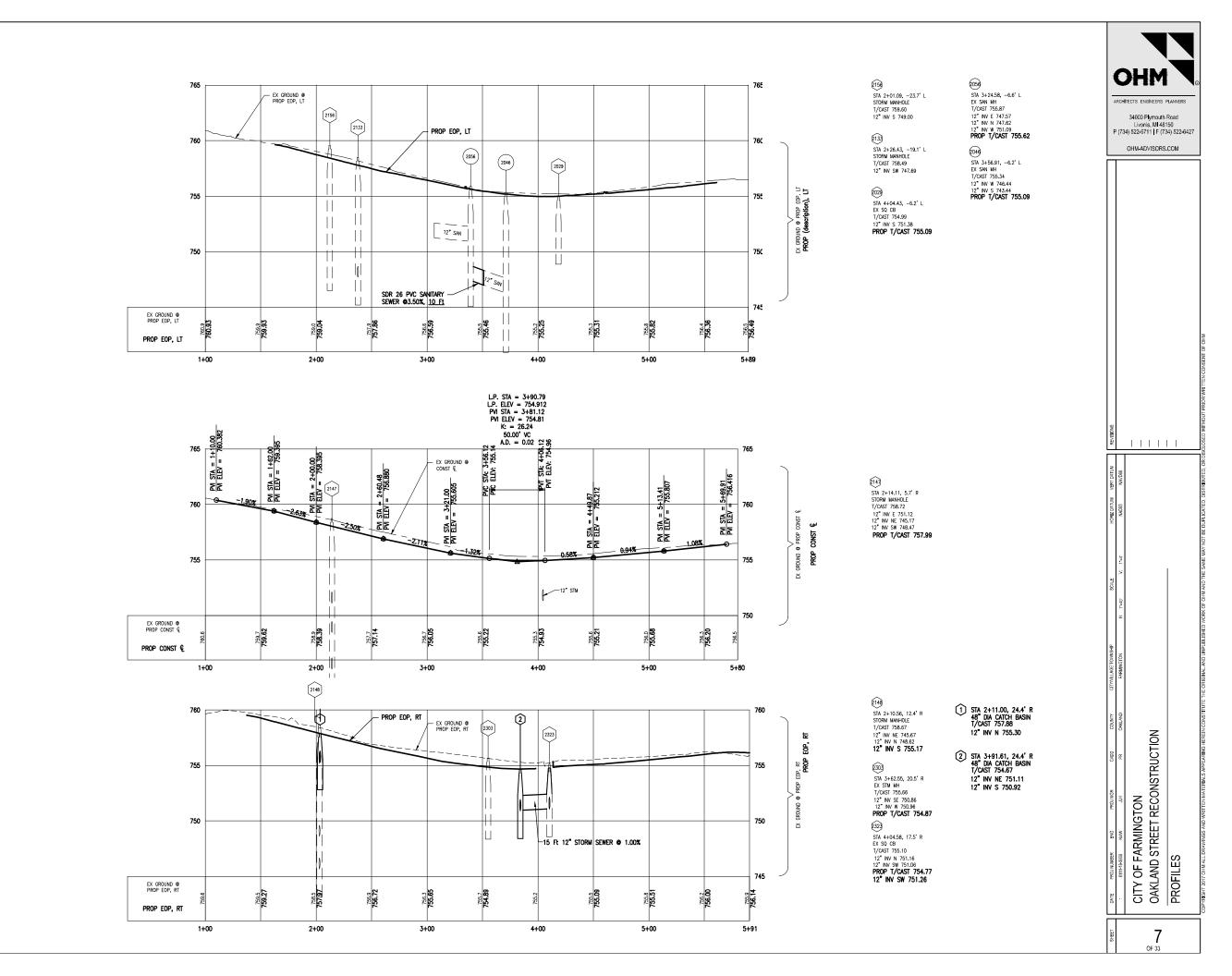
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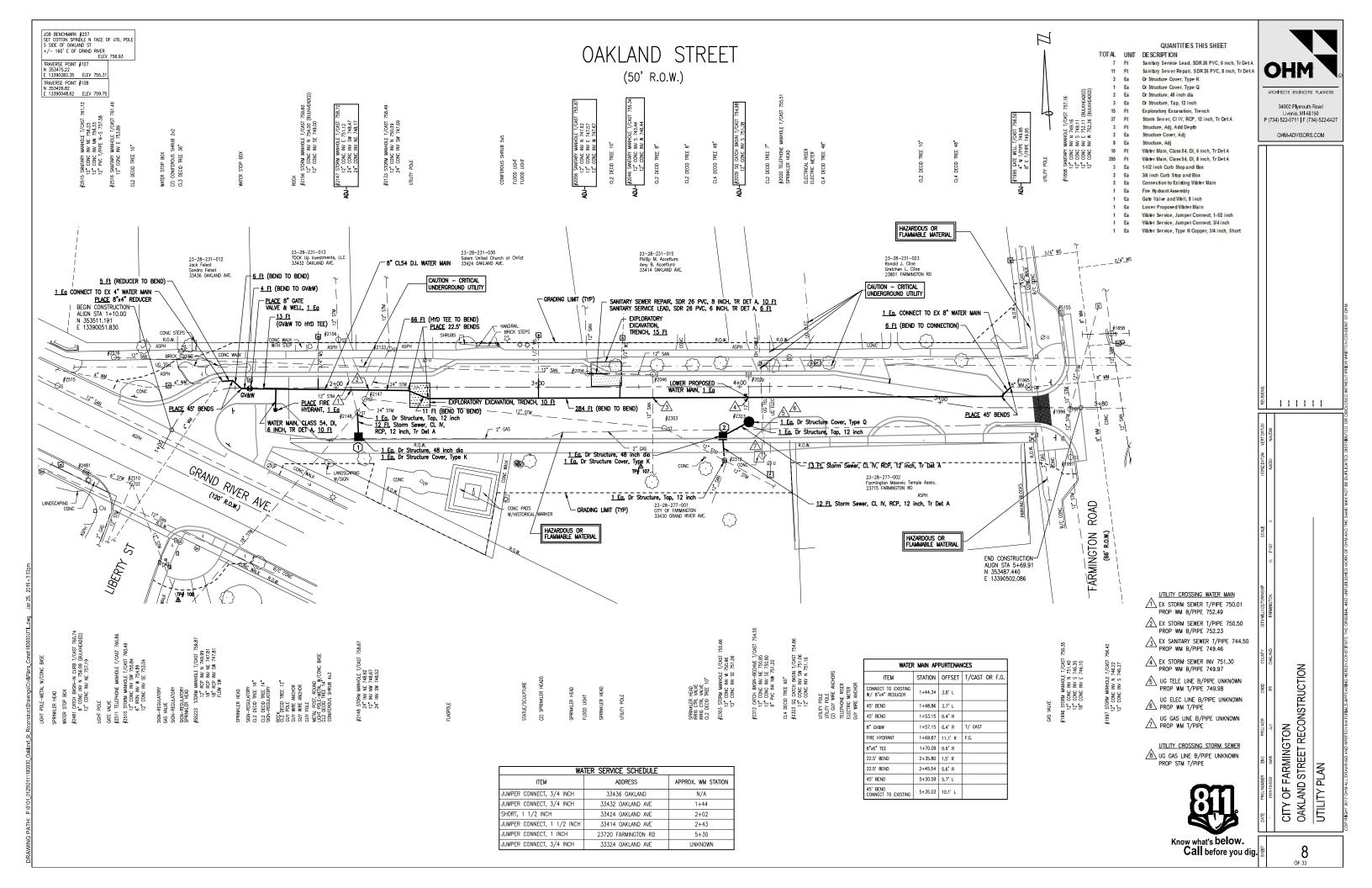
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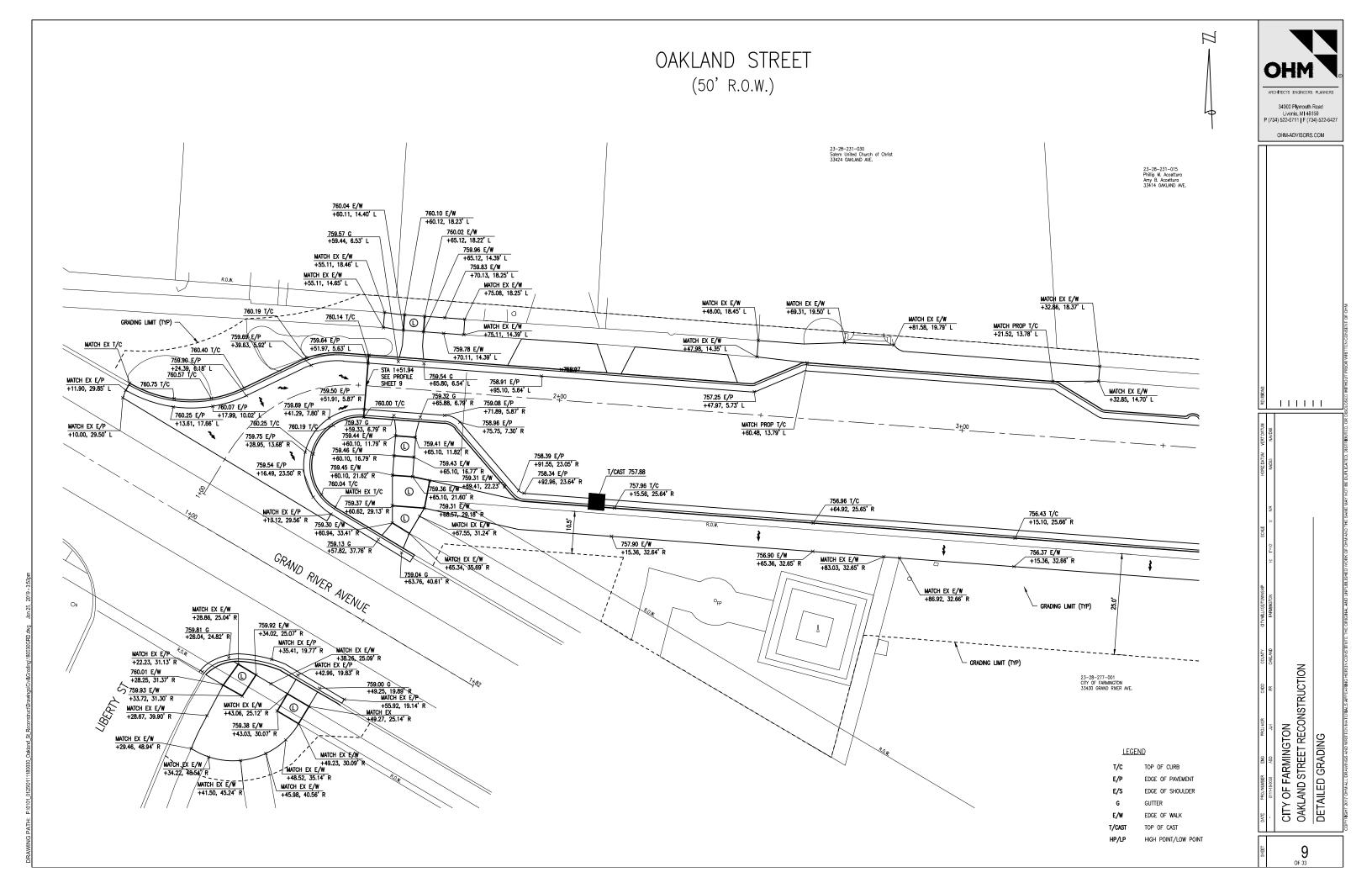
CITY OF FARMINGTON
OAKLAND STREET RECONSTRUCTION
GENERAL NOTES & DETAILS







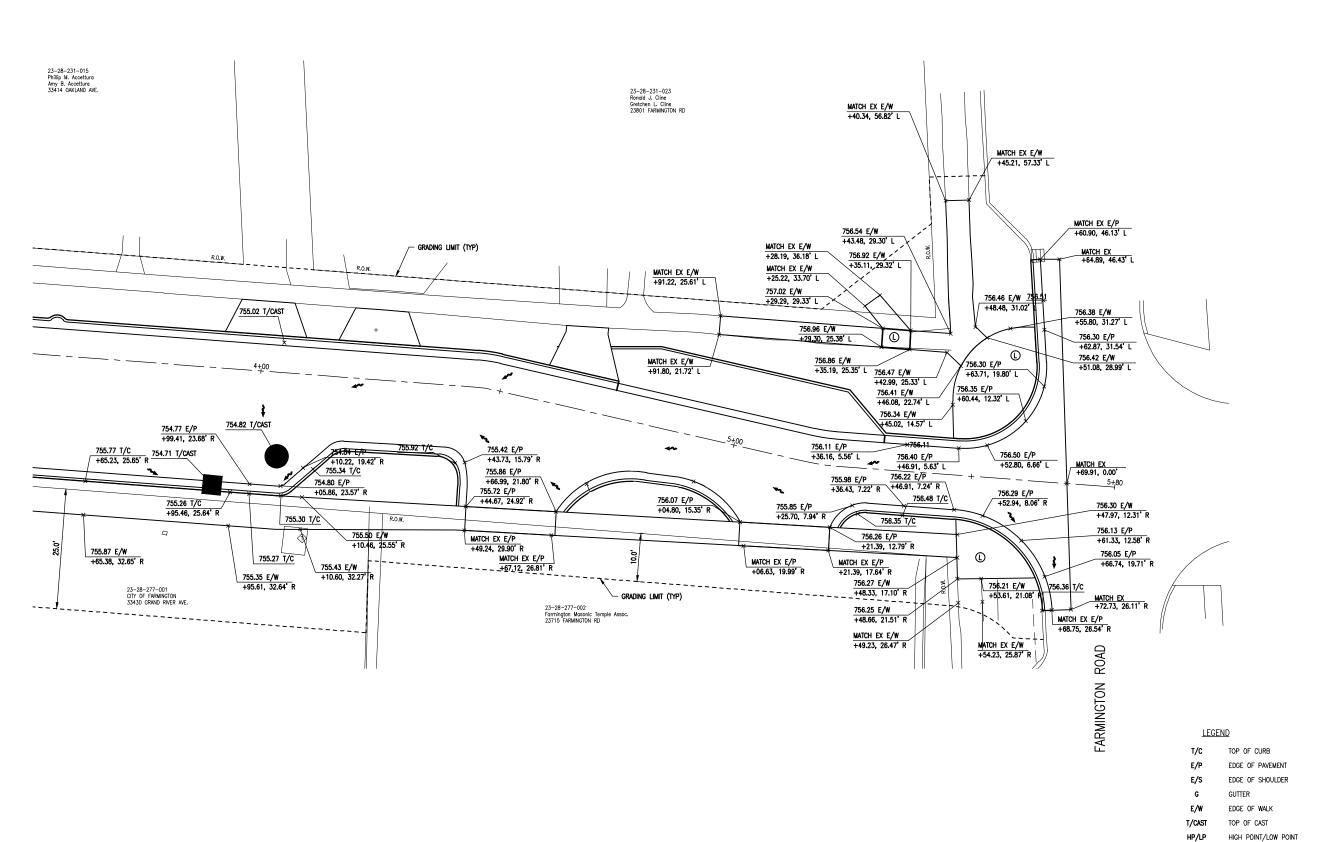




OAKLAND STREET (50' R.O.W.)







-1 + 1 + 1 + 1 + 1CITY OF FARMINGTON
OAKLAND STREET RECONSTRUCTION
DETAILED GRADING

> 10 OF 33

- 2. CONTRACTOR SHALL FAMILIARIZE HIMSELF/HERSELF WITH THE PROJECT SITE PRIOR TO BIDDING THE WORK.
- 3. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND REPORT ANY DISCREPANCIES TO THE OWNER'S REPRESENTATIVE PRIOR TO COMMENCING WITH WORK, NOTIFY OWNER'S REPRESENTATIVE OF ANY DISCREPANCY BETWEEN THE PLANS AND ACTUAL SITE CONDITIONS. NO WORK SHALL BE DONE IN AREAS WHERE SUCH DISCREPANCIES EXIST. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ALL NECESSARY REVISIONS DUE TO FAILURE TO GIVE SUCH
- 4. CONTACT MISS DIG (800-482-7171) AND ALL LOCAL UTILITY SERVICES FOR UTILITY LOCATIONS PRIOR TO COMMENCING WITH WORK
- 5. CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS PRIOR TO COMMENCING WITH WORK.
- 6. THE CONTRACTOR SHALL COORDINATE ALL WORK AND BE RESPONSIBLE FOR ALL METHODS, MEANS, SEQUENCE AND PROCEDURES OF WORK.
- 7. CONTRACTOR SHALL PROVIDE ALL NECESSARY SAFETY MEASURES DURING CONSTRUCTION OPERATIONS TO PROTECT THE PUBLIC ACCORDING TO ALL APPLICABLE CODES AND RECOGNIZED
- 8. CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN ON THE DRAWINGS AS WELL AS ANY DISCOVERED DURING THE CONSTRUCTION
- 9. CONTRACTOR SHALL COORDINATE ACCESS AND STAGING AREAS WITH THE OWNER'S REPRESENTATIVE.
- 10. THE LIMITS OF CONSTRUCTION LINE SHOWN DEFINES THE LIMITS OF WORK IN THIS CONTRACT. THERE MAY BE INSTANCES WHERE EROSION PROTECTION DEVICES AND UTILITY SYSTEMS EXTEND BEYOND THE PROJECT LIMITS LINE IN ORDER TO SUCCESSFULLY COMPLETE OPERATIONS AND/OR TIE INTO ADJACENT SYSTEMS.
- 11. THE CONTRACTOR SHALL KEEP ALL DRAINAGE FACILITIES AFFECTED BY HIS CONSTRUCTION OPERATIONS CLEAN AND FULLY OPERATIONAL AT ALL TIMES. THIS MAY INCLUDE STRUCTURES LOCATED OUTSIDE THE PROJECT LIMIT LINES.
- 12. MAINTAIN ALL EXISTING EROSION AND SEDIMENT CONTROL MEASURES (SILT FENCE, ORANGE GEO FENCE AND/OR OTHER MEASURES) DURING CONSTRUCTION. PROVIDE ADDITIONAL MEASURES AS NECESSARY TO MINIMIZE ADVERSE IMPACTS TO THE ADJACENT WATER BODIES, SURFACES AND STORM SEWERS ACCORDING TO ALL APPLICABLE FEDERAL/STATE LAWS AND REGULATIONS.
- 13. REPORT ALL EXISTING DAMAGE OF EXISTING SITE TO THE OWNER'S REPRESENTATIVE PRIOR TO BEGINNING WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SUBSEQUENT DAMAGE.
- 14. CONTRACTOR SHALL PROTECT, BY WHATEVER MEANS NECESSARY, THE EXISTING SITE IMPROVEMENTS TO REMAIN. ALL DAMAGED ITEMS SHALL BE REPLACED OR REPAIRED AT NO ADDITIONAL COST TO THE OWNER. NOTIFY OWNER'S REPRESENTATIVE IMMEDIATELY IF ANY
- 15. CONTRACTORS SHALL COORDINATE ALL WORK WITH RELATED TRADES AND THE GENERAL CONSTRUCTION OF THE PROJECT SO AS NOT TO IMPEDE THE PROGRESS OF THE WORK OF OTHERS OR THE CONTRACTORS OWN WORK
- 16. EACH CONTRACTOR SHALL VERIFY THE CONDITION AND COMPLETENESS OF ALL WORK PERFORMED BY OTHERS IN RELATION TO HIS/HER PROJECT WORK RESPONSIBILITIES INCLUDING THE CHECKING OF EXISTING ELEVATIONS OR STRUCTURES PRIOR TO INITIATING CONSTRUCTION. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE IF ANY SITE CONDITIONS ARE INCOMPLETE, MISSING OR DAMAGED.
- 17. ALL CONSTRUCTION DEBRIS AND REMOVED ITEMS SHALL BE DISPOSED OF LEGALLY OFF-SITE UNLESS OTHERWISE INDICATED ON THE DRAWINGS.
- 18. NOTIFY OWNER'S REPRESENTATIVE 72 HOURS IN ADVANCE OF ANY PLANNED UTILITY INTERRUPTION
- 19. CONTRACTOR SHALL CLEAN THE WORK AREAS AT THE END OF EACH WORKING DAY. ALL MATERIALS, PRODUCTS AND EQUIPMENT SHALL BE STORED IN AN ORGANIZED FASHION.
- 20. THE PLANS ASSUME THAT THE LAYOUT AND STAKING WILL BE ACCOMPLISHED USING TOTAL STATIONING / DIGITAL METHODS. ANY INFORMATION PROVIDED IS INTENDED TO SUPPORT INFORMATION ALREADY CONTAINED IN CAD FILES USED FOR DOCUMENTING LAYOUT AND STAKING. CAD FILES DELINEATING ALL GRADING AND HARDSCAPE ELEMENTS SHOWN IN THESE PLANS CAN BE PROVIDED TO THE CONTRACTOR UPON REQUEST.
- 21. CONTRACTOR SHALL EMPLOY SKILLED PERSONNEL AND USE EQUIPMENT NECESSARY TO ENSURE THAT ALL WORK IS PROFESSIONALLY AND PROPERLY INSTALLED AND IN FULL COMPLIANCE WITH THE PLANS AND DETAILS.
- 22. CONTRACTOR SHALL COMPLY WITH STATE AND LOCAL LAWS AND REGULATIONS REGARDING NOTIFICATION OF EXISTING GAS AND OIL PIPELINE COMPANY OWNERS. EVIDENCE OF SUCH NOTICE SHALL BE FURNISHED TO THE OWNER'S REPRESENTATIVE PRIOR TO COMMENCING WITH

PLANTING NOTES

- STAKE ALL BED LINES AND TREE LOCATIONS FOR THE LANDSCAPE ARCHITECT'S REVIEW PRIOR TO INSTALLATION. ALL PLANTING PROCEDURES ARE SUBJECT TO THE REVIEW OF THE LANDSCAPE ARCHITECT AND THE CONTRACTOR SHALL CORRECT ANY DEFICIENCIES FOUND AT NO ADDITIONAL COST TO THE OWNER.
- SECURE PLANT MATERIAL AS SPECIFIED ON PLANS. IN THE EVENT THAT PLANT MATERIALS SPECIFIED ARE NOT AVAILABLE, CONTACT LANDSCAPE ARCHITECT FOR APPROVED SUBSTITUTIONS. NO SUBSTITUTIONS FOR PLANT MATERIALS WILL BE ALLOWED WITHOUT PRIOR WRITTEN APPROVAL BY THE LANDSCAPE ARCHITECT.
- 3. VERIFY THAT ALL PLANTING PRODUCTS, PLANT MATERIAL, AND PLANT QUANTITIES DELIVERED TO THE SITE MATCH WHAT IS INDICATED ON THE PLANS AND SPECIFICATIONS.
- 4. PROTECT ALL PLANT MATERIAL DURING DELIVERY TO PREVENT DAMAGE TO ROOT BALLS, TRUNKS, BRANCHES AND THE DESICCATION OF LEAVES. PROTECT ALL PLANT MATERIAL DURING SHIPPING WITH SHADE CLOTH OR SHIP WITH ENCLOSED TRANSPORT. MAINTAIN PROTECTIONS AND HEALTH OF PLANT MATERIAL STORED ON SITE. HANDLE ALL TREES WITH NYLON STRAPS. NO CHAINS OR CABLES WILL BE ALLOWED. REMOVE UNACCEPTABLE PLANT MATERIAL IMMEDIATELY FROM THE
- 5. ALL PLANT MATERIAL SHALL BE NURSERY GROWN, WELL FORMED, TRUE TO SPECIES, HARDENED OFF WITH VIGOROUS ROOT SYSTEMS, FULL CROWN AND CANOPIES, AND FREE FROM DISEASE, PESTS AND INSECTS, AND DEFECTS SUCH AS KNOTS, SUN SCALD, WINDBURN, LEAF DISCOLORATION, IRREGULAR BRANCHING OR INJURIES.
- ALL PLANT HEIGHTS, SPREADS, CONTAINER SIZES, AND ROOT BALLS SIZES SHALL CONFORM TO THE SIZE STANDARDS SET FORTH IN ANSI Z-60.1 "AMERICAN STANDARDS FOR NURSERY STOCK".
- 7. ALL PLANT MATERIAL DELIVERED TO THE SITE IS SUBJECT TO THE REVIEW OF THE LANDSCAPE ARCHITECT BEFORE, DURING AND AFTER INSTALLATION.
- PROVIDE PLANT SAMPLES OR PHOTOGRAPHS OF EACH PLANT SPECIFIED TO THE LANDSCAPE ARCHITECT FOR COMPLIANCE REVIEW PRIOR TO INSTALLATION.
- 9. TEST FILL ALL TREE AND PLANTING PITS WITH WATER, PRIOR TO PLANTING, TO ASSURE PROPER SOIL PERCOLATION. PITS WHICH DO NOT ADEQUATELY DRAIN SHALL BE FURTHER EXCAVATED TO A DEPTH SUFFICIENT FOR DRAINAGE TO OCCUR AND/OR BACKFILLED WITH SUITABLE DRAINAGE GRAVEL. NO ALLOWANCES SHALL BE MADE FOR PLANT MATERIAL LOSS DUE TO IMPROPER CONTRACTOR SHALL REPLACE LOST PLANT MATERIAL WITH SAME SIZE AND SPECIES AT NO ADDITIONAL COST TO OWNER.
- 10. ALL PLANT MATERIALS, INCLUDING RELOCATED PLANT MATERIAL, SHALL BE PLANTED IN A PROFESSIONAL MANNER TYPICAL TO THE INDUSTRY STANDARDS OF THE AREA TO ASSURE COMPLETE SURVIVABILITY OF ALL INSTALLED PLANT MATERIALS AS WELL AS TO PROVIDE AN AESTHETICALLY APPROVED PROJECT. CONTRACTOR SHALL REFER TO THE PLANTING DETAILS FOR MINIMUM SIZE AND WIDTH OF PLANTING PITS AND BEDS, GUYING AND STAKING, MULCHING, AND OTHER PLANTING REQUIREMENTS.
- 11. NO PLANTS SHALL BE PLANTED WITH IN A 2'-0" RADIUS (CLEARANCE ZONE) AROUND ALL DRAINS LOCATED IN LANDSCAPE BEDS. CONTRACTOR SHALL MULCH AREA AROUND ALL DRAINS LOCATED IN LANDSCAPE BEDS. REFER TO ENGINEERING DRAWINGS FOR ALL DRAIN LOCATIONS.
- 12. LAWN AREAS TO PROVIDE A SMOOTH AND CONTINUAL GRADE.
- 13. PLANTING BEDS SHALL HAVE A MINIMUM OF 3" DEPTH OF DOUBLE SHREDDED HARDWOOD MULCH.
- 14. ALL PLANTING AREAS SHALL BE WEED FREE PRIOR TO PLANTING INSTALLATION.
- 15. REMOVE ALL PLANTING AND LANDSCAPE DEBRIS FROM THE PROJECT SITE AND SWEEP AND WASH CLEAN ALL PAVED AND FINISHED SURFACES AFFECTED BY THE LANDSCAPE INSTALLATION
- 16. REFER GENERAL NOTES FOR ADDITIONAL INSTRUCTIONS.

TREE PROTECTION NOTES

- 1. ALL TREES TO BE REMOVED SHALL BE CLEARLY MARKED BY AN APPROVED METHOD.
- TREE REMOVAL SHALL INCLUDE THE TREE STUMPS UNLESS OTHERWISE DIRECTED BY THE OWNER'S REPRESENTATIVE. CONTRACTOR SHALL REMOVE ALL DOWNED TREE DEBRIS FROM THE SITE AND DISPOSED OF PROPERLY.
- 3. ALL AREAS WITHIN THE DRIPLINES OF EXISTING TREES SHALL REMAIN FREE OF CONSTRUCTION MATERIALS, DEBRIS, VEHICLES AND FOOT TRAFFIC AT ALL TIMES. CONTRACTOR SHALL PROVIDE TEMPORARY FENCING, BARRICADES AND/OR OTHER SUITABLE GUARDS OUTSIDE DRIP LINE (OUTSIDE PERIMETER OF BRANCHES) TO PROTECT TREES AND PLANT MATERIAL TO REMAIN. NO WORK SHALL BE PERFORMED WITHIN THE DRIPLINE OF EXISTING TREES LINESS INDICATED. ALL WORK INDICATED TO BE PERFORMED WITHIN THE DRIPLINE OF TREES SHALL BE DONE BY HAND AND CARE SHALL BE TAKEN TO MINIMIZE DISTURBANCE TO THE TREE ROOTS.
- 4. SILT FENCING SHALL BE LOCATED OUTSIDE OF ANY TREE PROTECTION FENCING.
- 5. SEE TREE PROTECTION DETAIL FOR MORE INFORMATION

LAYOUT NOTES

- 1. ALL DIMENSIONS SHOWN ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED
- 2. DO NOT SCALE DRAWINGS. UTILIZE DIMENSIONS INDICATED ON THE PLANS ALL DIMENSIONING SHALL BE VERIFIED IN THE FIELD PRIOR TO CONSTRUCTION WITH THE LANDSCAPE ARCHITECT.
- ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT, FACE OF WALL, OR FACE OF CURB UNLESS OTHERWISE NOTED.
- 4. WALKWAYS AND HARDSCAPE ELEMENTS INDICATED AS CURVILINEAR SHALL HAVE SMOOTH CONTINUOUS CURVES.
- 5. UNLESS INDICATED OTHERWISE, ALL WALKWAYS ABUT AT 90 DEGREE ANGLES.
- 6. ALL CONCRETE SCORING SHALL BE PARALLEL, PERPENDICULAR OR TANGENT TO ADJACENT IMPROVEMENTS UNLESS OTHERWISE NOTED.
- 7. LAYOUT ALL CONSTRUCTION LINES AND VERIFY LAYOUT WITH THE OWNER'S REPRESENTATIVE PRIOR TO BEGINNING ANY CONSTRUCTION WORK.
- RADII OF CURBS ARE ESTIMATED FROM SURVEY OR BASE DATA. THE CONTRACTOR SHALL MAKE ALL MODIFICATIONS NECESSARY TO ASSURE EXISTING AND NEW CURBS MEET FLUSH, EVEN AND
- PROVIDE ISOLATION JOINTS WHERE CONCRETE PAVING OR PAVING BASE MEETS A FIXED STRUCTURE (EXISTING OR PROPOSED)
- 10. PROVIDE FLUSH CONDITIONS AT JUNCTURE OF ALL WALKWAYS AND DOOR THRESHOLDS.
- 11. REFER GENERAL NOTES FOR ADDITIONAL INSTRUCTIONS.
- 12. SEE METHODS OF PAYMENT FOR CONSTRUCTION REQUIREMENTS, MATERIALS AND EXECUTION.
- 13. BARRIER FREE RAMPS, PARKING AND SIGNAGE MUST MEET CURRENT MDOT STANDARDS.
- 14. SEE ADDITIONAL CIVIL PLANS FOR DEMOLITION, GRADES AND VEHICULAR PAVEMENT.
- 15. CLAY PAVER WALKS TO BE MINIMUM 6 FT. WIDE UNLESS OTHERWISE NOTED.
- 16. LIGHT POLES SHOWN FOR REFERENCE ONLY, REFER TO ELECTRICAL PLANS.
- 17. REPORT ANY DISCREPANCIES BETWEEN DIMENSIONED LAYOUT AND ACTUAL FIELD CONDITIONS TO THE LANDSCAPE ARCHITECT.
- 18. VERIFY THAT ALL UNDERGROUND UTILITIES, SLEEVES, DRAINTILE AND WIRING HAS BEEN PLACED, TESTED AND APPROVED PRIOR TO INSTALLING BACKFILL AND/OR PAVEMENT.
- 19. LAYOUT TO BE DONE BY REGISTERED SURVEYOR. REVIEWED BY THE LANDSCAPE ARCHITECT AND ADJUSTED ON SITE (IF REQUIRED) PRIOR TO INSTALLATION WITHOUT ADDITIONAL COST TO OWNER.

IRRIGATION NOTES

- 1. CONTRACTOR SHALL DESIGN THE IRRIGATION SYSTEM TO PROVIDE HEAD TO HEAD COVERAGE OF ALL LANDSCAPE AREAS AS INDICATED ON THE PLANS (AT A MINIMUM) AND SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL AS DESCRIBED IN THE SPECIFICATIONS.
- 2, ALL PRODUCTS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND ACCORDING TO LOCAL BUILDING, ELECTRICAL, AND PLUMBING CODES.
- 3. WHERE NEW IRRIGATION SYSTEM CONNECTS TO ANY EXISTING SYSTEM, ALL NEW MATERIALS (HEADS, VALVES, NOZZLES, ETC.) SHALL BE OF THE SAME MANUFACTURER AS THE EXISTING SYSTEM. CONTRACTOR TO COORDINATE WITH CITY AS TO THE EXTENTS AND MANUFACTURER OF THE EXISTING IRRIGATION SYSTEM WHERE NEW CONNECTS TO EXISTING
- 4. BEFORE ANY WORK COMMENCES, CONTRACTOR SHALL COORDINATE WITH THE ENGINEER AND OTHER CONTRACTORS TO ENABLE WORK TO PROCEED AS QUICKLY AS POSSIBLE
- 5. CONTRACTOR SHALL COORDINATE THE AVAILABILITY OF POWER WITH DTE PRIOR TO INSTALLATION OF THE IRRIGATION SYSTEM.
- ALL WIRING AND BACKFLOW PREVENTION TO BE PER LOCAL CODE AND AS DESCRIBED IN THE SPECS, ALL IRRIGATION WIRING SHALL BE ON SEPARATE CIRCUIT FROM SITE LIGHTING. CONTRACTOR SHALL COORDINATE ALL NECESSARY INSPECTIONS PER LOCAL CODE.
- INSTALL IRRIGATION MAINS WITH A MINIMUM 18" OF COVER BASED ON FINISH GRADES. INSTALL IRRIGATION LATERALS WITH MINIMUM 12" OF COVER BASED ON FINISH GRADES.
- ALL WIRE SPLICES OR CONNECTIONS SHALL BE MADE WITH APPROVED WATERPROOF WIRE CONNECTIONS AND BE IN A VALVE OR SPLICE BOX.
- 9. ALL CONTROL WIRING DOWNSTREAM OF THE CONTROLLER IS TO BE 14 AWG, UL APPROVED DIRECT
- 10. PROVIDE BLOWOUT FITTINGS ON EACH LINE IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS



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RECONSTRUCTION **FARMINGTON** STREET



CITY OF F, OAKLAND S

DECIDUOUS TREES



RED SUNSET MAPLE

<u>SHRUBS</u>





BLUE CHIP JUNIPER



GRO-LOW FRAGRANT SUMAC





GOLDFLAME SPIREA

PERENNIALS, ORNAMENTAL GRASSES & GROUNDCOVER



ART'S PRIDE CONEFLOWER



WALKER'S LOW CATMINT



DWARF FOUNTAIN GRASS



PINK IMPRESSION DARWIN TULIP



BOWLES' COMMON PERIWINKLE

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PLANT CHARACTER IMAGES Know what's below.
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HARDSCAPE MATERIALS



RUNNING BOND BRICK PAVERS WITH 'ARGYLE' (SE CORNER OF GRAND RIVER AVE. AND LIBERTY ST.)

ARGYLE STRIPING:
-ENDICOTT CLAY PRODUCTS: MANGANESE IRONSPOT

FIELD:
-PACIFIC CLAY BEAR PATH PAVER: MEDIUM

NOTE: REFER TO NOTES, DETAILS AND SPECIFICATIONS FOR MORE INFORMATION



BRICK PAVER SOLDIER COURSE (GRAND RIVER PLAZA)

SOLDIER COURSE:
-ENDICOTT CLAY PRODUCTS: MANGANESE IRONSPOT

NOTE: REFER TO NOTES, DETAILS AND SPECIFICATIONS



HERRINGBONE BRICK PAVER CROSSWALK (OAKLAND ST. & FARMINGTON ST. CROSSWALK, ON WEST SIDE)

FIELD:
-PACIFIC CLAY BEAR PATH PAVER: MEDIUM IRONSPOT

NOTE: REFER TO DETAILS AND SPECIFICATIONS FOR



SOLDIER COURSE ADJACENT TO HERRINGBONE BRICK PAVER CROSSWALK (OAKLAND ST. & FARMINGTON ST. CROSSWALK,

SOLDIER COURSE:
-ENDICOTT CLAY PRODUCTS: MANGANESE

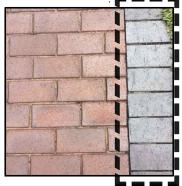
NOTE: REFER TO NOTES, DETAILS AND SPECIFICATIONS



RUNNING BOND BRICK PAVERS (OAKLAND ST. & FARMINGTON ST. PLAZAS ON WEST SIDE OF INTERSECTION)

FIELD:
-PACIFIC CLAY BEAR PATH PAVER: MEDIUM

NOTE: REFER TO NOTES, DETAILS AND SPECIFICATIONS



SOLDIER COURSE ADJACENT TO RUNNING BOND (OAKLAND ST. & FARMINGTON ST. PLAZAS ON

WEST SIDE OF INTERSECTION) SOLDIER COURSE:
-ENDICOTT CLAY PRODUCTS: MANGANESE

REFER TO NOTES, DETAILS AND SPECIFICATIONS



TRUNCATED DOME BRICK PAVERS (OAKLAND ST. & FARMINGTON ST. PLAZAS ON WEST SIDE OF INTERSECTION)

-ENDICOTT CLAY PRODUCTS: MANGANESE
IRONSPOT WITH DETECTABLE WARMING DOMES PER ADA STANDARDS

REFER TO NOTES, DETAILS AND SPECIFICATIONS

SITE FURNISHING MATERIALS



VICTOR STANLEY MODEL SD-35 BLACK LITTER RECEPTACLE

NOTE; REFER TO NOTES, DETAILS AND SPECIFICATIONS FOR MORE INFORMATION



VICTOR STANLEY MODEL SD-35 BLACK RECYCLE RECEPTACLE

NOTE: REFER TO NOTES, DETAILS AND SPECIFICATIONS FOR MORE INFORMATION



BOLLARD: FAIRWEATHER SF, MODEL CU-CB-B CAST DUCTILE IRON BOLLARD WITH NON-STANDARD BREAKAWAY IMPACT MOUNTING CHAIN: CREATIVE PIPE

NOTE: REFER TO NOTES, DETAILS AND SPECIFICATIONS FOR MORE INFORMATION

LIGHTING MATERIALS (SEE ELECTRICAL PLANS)

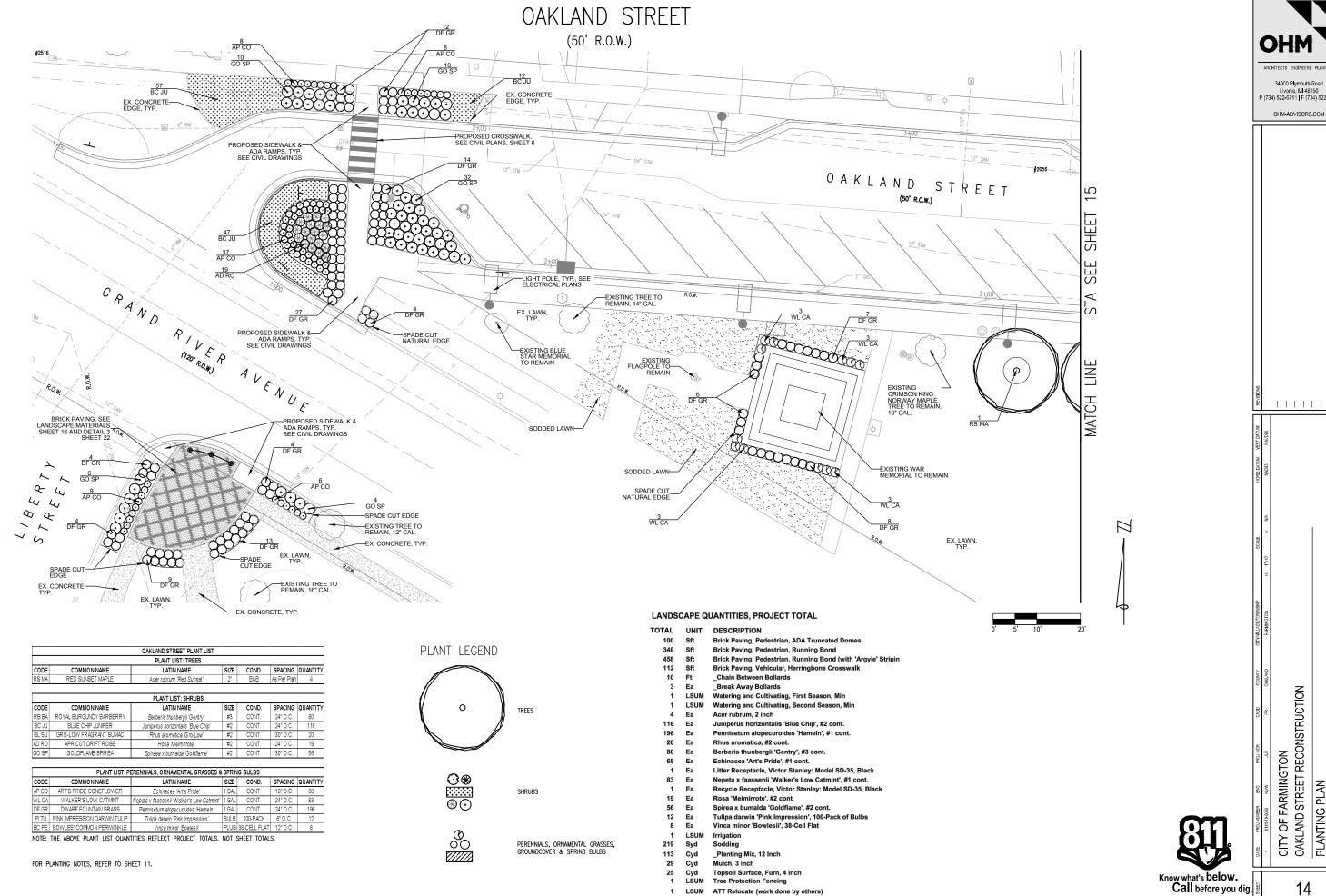


LIGHT POLE, SEE ELECTRICAL PLANS

CITY OF FARMINGTON
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MATERIAL CHARACTER IMAGES

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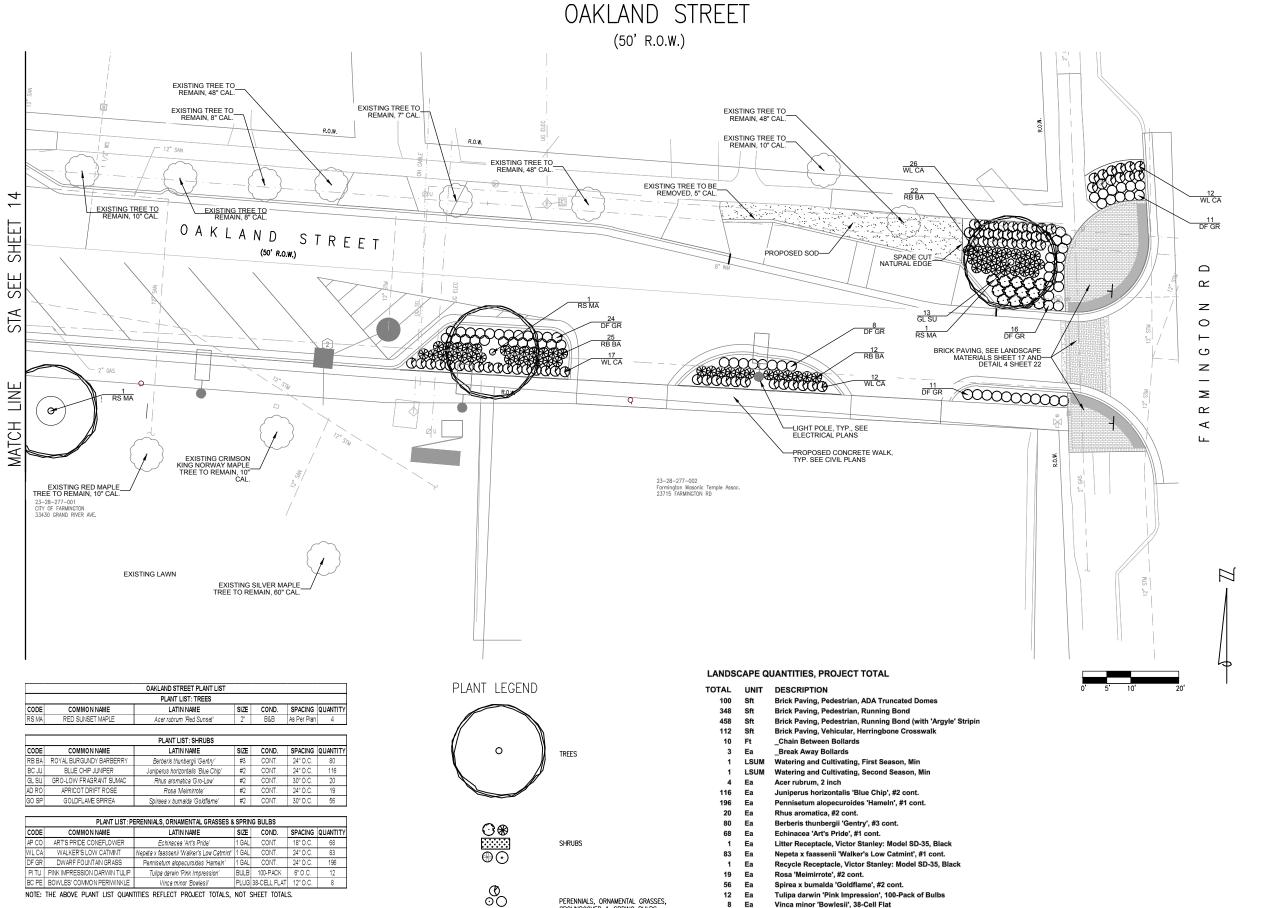
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1 LSUM ATT Relocate (work done by others)

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PLANTING PLAN



12

219 Syd 113 29

Ea

Irrigation

Mulch, 3 inch Cyd Topsoil Surface, Furn, 4 inch LSUM Tree Protection Fencing

1 LSUM ATT Relocate (work done by others)

PERENNIALS, ORNAMENTAL GRASSES, GROUNDCOVER & SPRING BULBS

Tulipa darwin 'Pink Impression', 100-Pack of Bulbs

Vinca minor 'Bowlesii', 38-Cell Flat

NOTE: THE ABOVE PLANT LIST QUANTITIES REFLECT PROJECT TOTALS, NOT SHEET TOTALS.

FOR PLANTING NOTES, REFER TO SHEET 11.

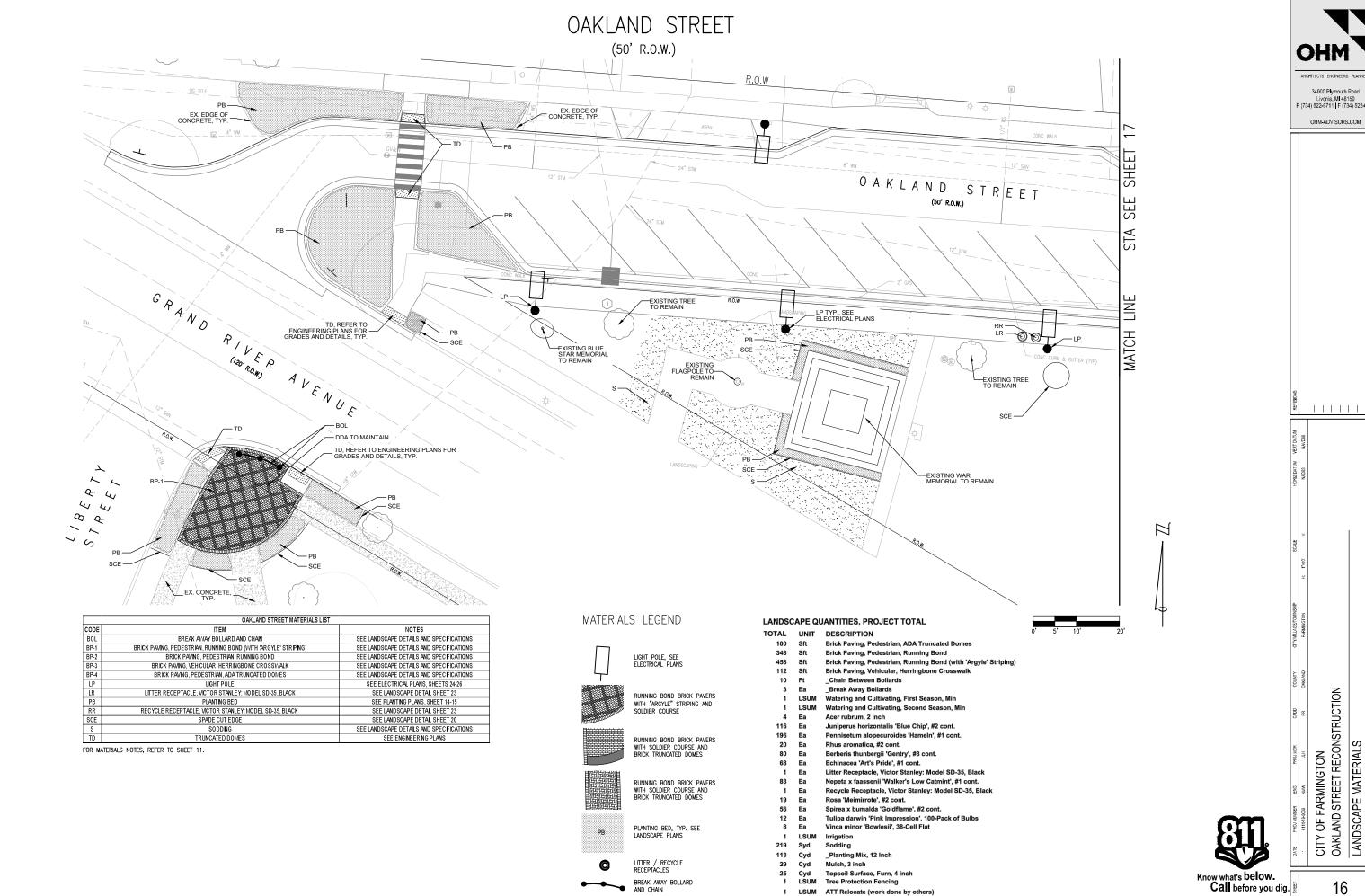
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OAKLAND STREET RECONSTRUCTION
PLANTING PLAN Call before you dig.

15

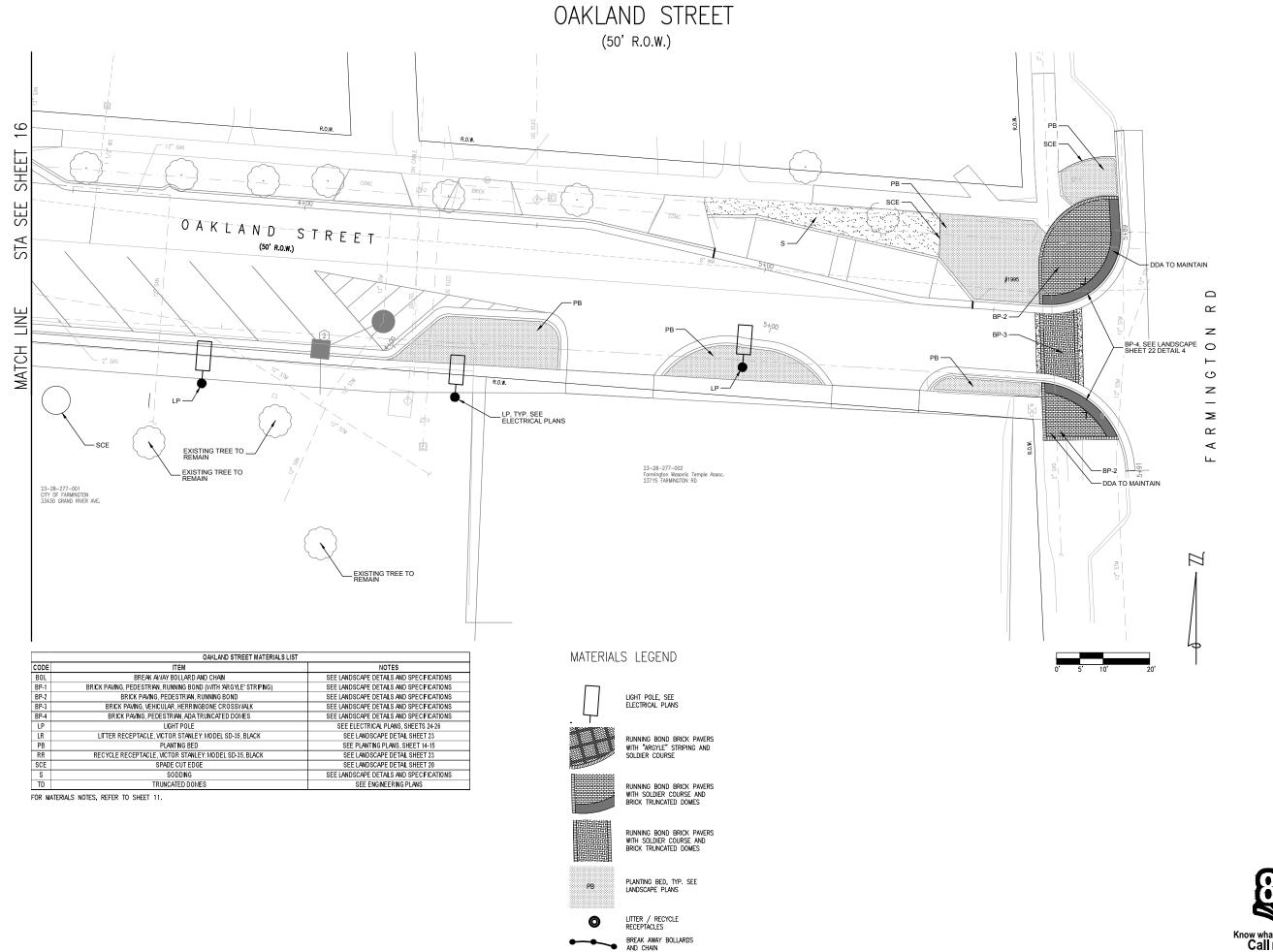
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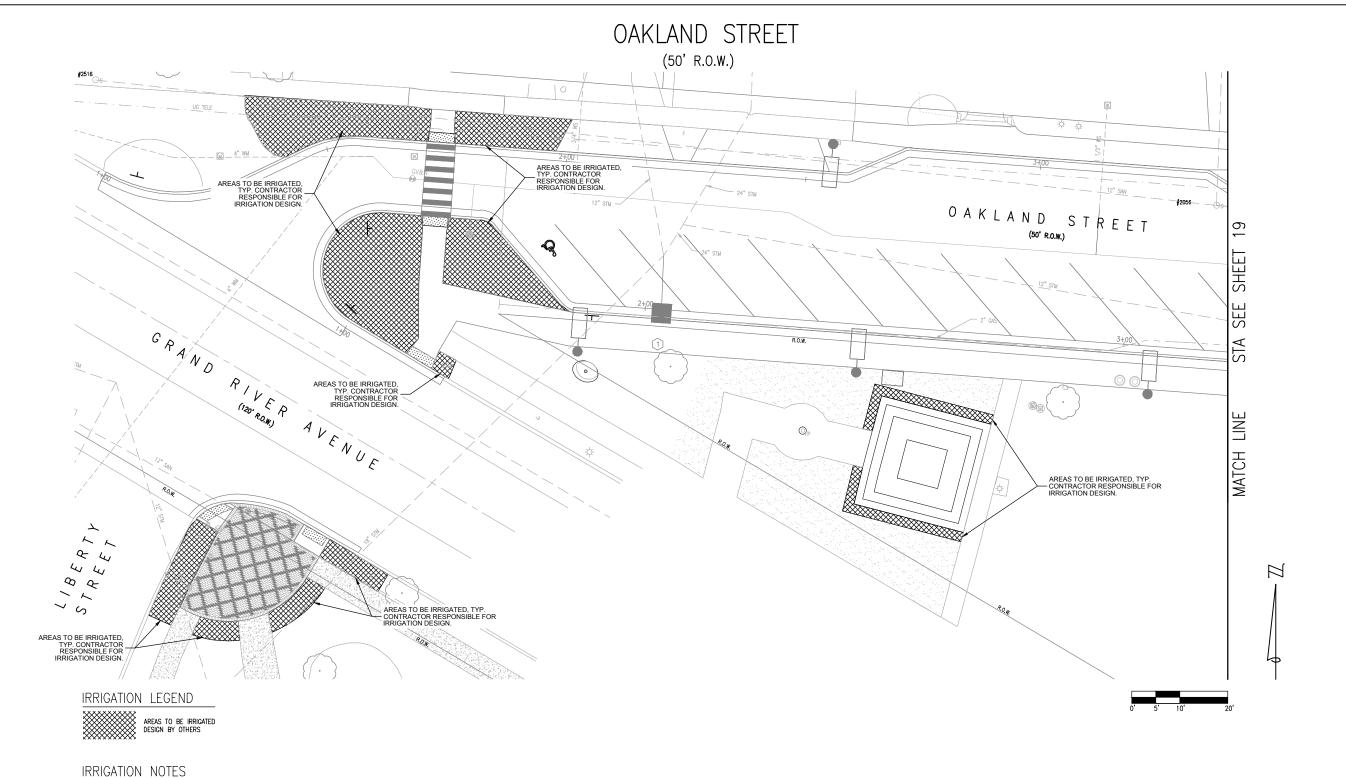


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CITY OF FARMINGTON
OAKLAND STREET RECONSTRUCTION
IRRIGATION PLANS

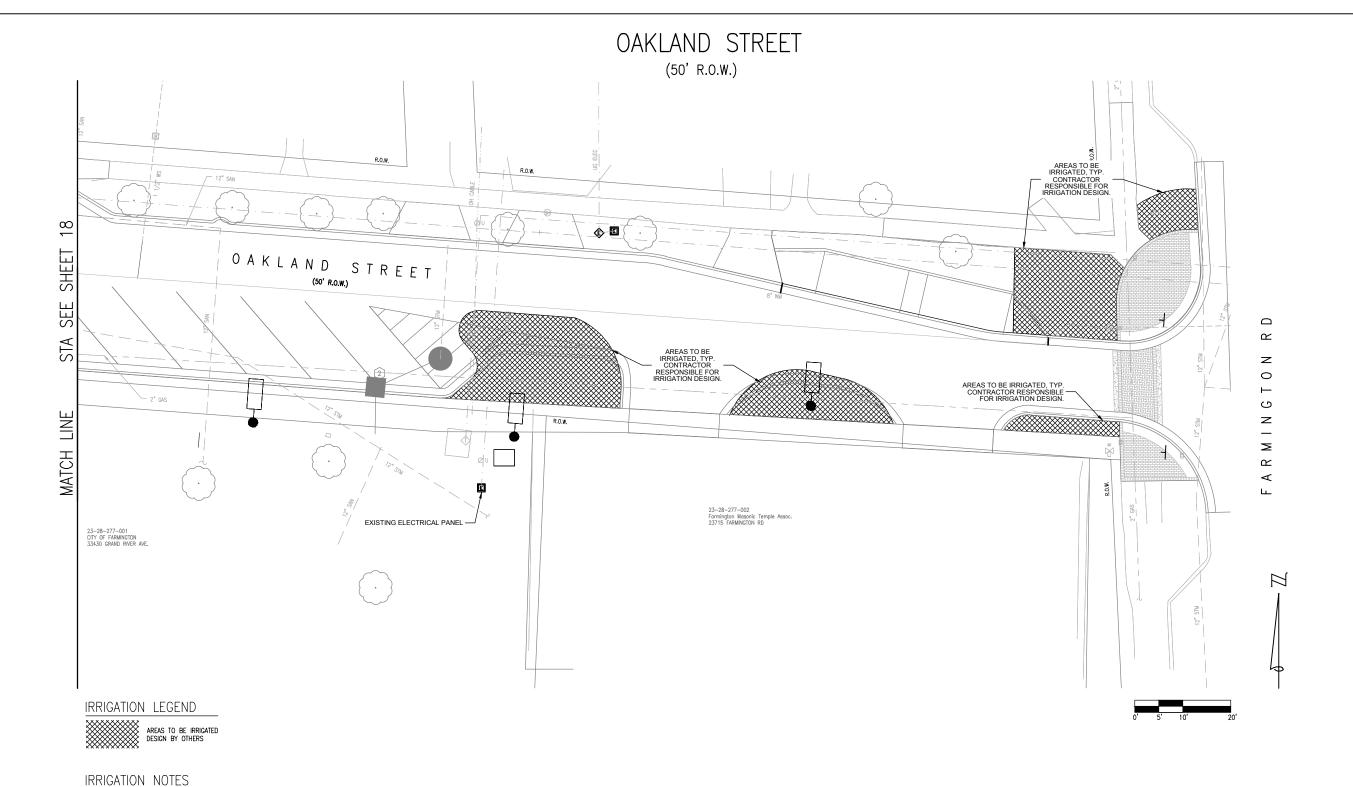
18 OF 33

ALL SYSTEM COMPONENTS SHALL BE OF THE SAME SUPPLIER OR AS RECOMMENDED BY THE MANUFACTURER.

4. CONTRACTOR SHALL COORDINATE THE AVAILABILITY OF POWER WITH DTE PRIOR TO INSTALLATION OF THE IRRIGATION SYSTEM.

2. ALL SLEEVES TO BE 4" SCHEDULE 40 PVC UNLESS OTHERWISE INDICATED ON THE PLANS. CONTRACTOR SHALL STAKE SLEEVE LOCATIONS AT BOTH ENDS.

3. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.



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CITY OF FARMINGTON
OAKLAND STREET RECONSTRUCTION
IRRIGATION PLANS

ALL SYSTEM COMPONENTS SHALL BE OF THE SAME SUPPLIER OR AS RECOMMENDED BY THE MANUFACTURER.

4. CONTRACTOR SHALL COORDINATE THE AVAILABILITY OF POWER WITH DTE PRIOR TO INSTALLATION OF THE IRRIGATION SYSTEM.

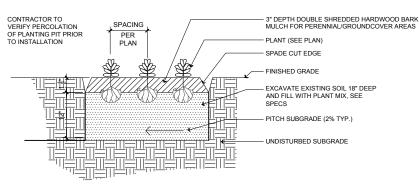
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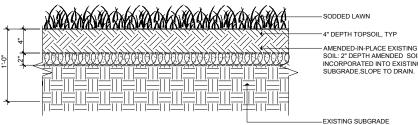
PLANTING BED SPADE CUT EDGE SCALE: 1" = 1'-0'

PROVIDE MIN. 12" SPACING BETWEEN DIFFERENT PLANT TYPES. SEE PLANTING PLAN FOR SPECIFIC PLANT SPACING. REFER TO PLANTING PLAN FOR AREAS TO BE TRIANGULAR SPACED. FOLLOW PLANTING PLAN FOR PLANT LAYOUT, AND PLANT LIST FOR SPACING DISTANCE REQUIREMENTS. 6" SETBACK FOR ORNAMENTAL GRASS 12" SETBACK FOR - EDGE OF BED.

02 PLANT SPACING



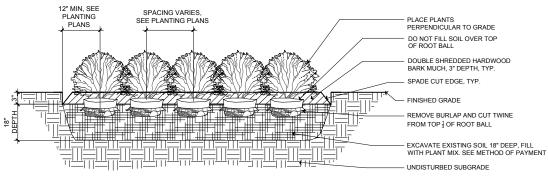
03 PERENNIAL/GROUNDCOVER/ANNUAL PLANTING DETAIL SCALE: 1" = 1'-0"



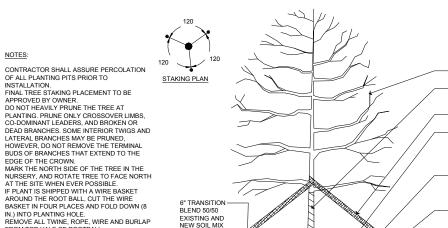
O4 SOD LAWN DETAIL SCALE: 1 ½" = 1'-0'

PLANTS, SEE PLANTING PLANS FOR TYPE AND LOCATION REMOVE BURLAP AND CUT TWINE FROM TOP \$\frac{1}{3}\$ OF ROOT BALL HADDSCADE DOUBLE SHREDDED HARDWOOD BARK MUCH, 3" DEPTH, TYP. VARIES, SEE PLANS PLANT MIX 12" DEPTH FOR PERENNIALS AND GROUNDCOVER
2. 18" DEPTH FOR SHRUBS

05 EXCAVATION FOR SOIL AT PAVEMENT AND STRUCTURES SCALE: 1" = 1'-0"



O6 SHRUBS / ORNAMENTAL GRASS PLANTINGS
SCALE: 1" = 1'-0"



BASKET IN FOUR PLACES AND FULLD DOWN (8 IN.) INTO PLANTING HOLE.
REMOVE ALL TWINE, ROPE, WIRE AND BURLAP FROM TOP HALF OF ROOTBALL.
SET TREE PLUMB IN PLANTING PIT.
EACH TREE MUST BE PLANTED SUCH THAT
THE TRUNK FLARE IS VISIBLE AT THE TOP OF

BALL SIZE PIT WIDTH AT BOTTOM UP TO 48" DIA. OF BALL + 2'

OVER 48" 1 3/4 X DIA. OF BALL PRUNE AS SPEC'D (OMIT FOR EVERGREENS) ARBOR TIE, SET ABOVE FIRST BRANCH MAINTAIN ROOT CROWN 2" ABOVE SURROUNDING GRADE AFTER TRANSPLANTING OR PLANT HIGH AT WETLOCATIONS CUT & REMOVE BURLAP FROM TOP 1/3 OF BALL & CUT WIRE BASKETS ON ALL SIDES 3" DOUBLE SHREDDED HARDWOOD BARK MULCH EXISTING AND NEW SOIL MIX PLANT PIT 6" HEIGHT SAUCER SEE TABLE THREE 2"X4" PRESSURE TREATED PINE STAKES, 24" LONG, SPACE EVENLY AROUND TREE. 1 FO PLANT MIX SCARIFY SOIL TO 4" DEPTH AND RECOMPACT FILL LOCATIONS)

2 3

SCREW "ALL-THREAD" ROD INTO BOTTOM OF FINIAL

2 2" Ø HOLE IN CENTER OF BOLLARD

3 3/4" "ALL-THREAD" ROD

BREAK-AWAY GROOVE MACHINED AT STREET LEVEL ON "ALL-THREAD" ROD

(5) DRILL 1 1/4" ø HOLE MIN. X 3 1/2" DEEP INTO CONCRETE, INSTALL DOUBLE END RAWL & THREAD ROD INTO RAWL

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6 HOLE FOR 3/8" SET SCREWS (3 EACH)

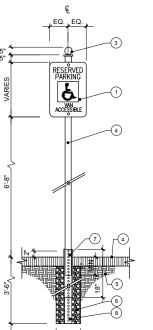
ZINC COATED STEEL CHAIN. VERIFY CHAIN LENGTH WITH LANDSCAPE ARCHITECT FOR DESIRED LOOP EFFECT.

8 EYE BOLTS VARY PER BOLLARD, REFER TO PLAN FOR BOLLARD LOCATION.

9 7" DIA. X 3'-6" DEPTH CAST-IN-PLACE CONCRETE FOOTING.

10 CLAY BRICK PAVERS - SEE TYPICAL DETAIL

BREAK AWAY BOLLARD INSTALLATION DETAIL SCALE: NO SCALE



 ALUMINUM SIGN PANEL PER MDOT STANDARDS. SEE CIVIL DWGS FOR SIGN PLAN TYPE & LOCATIONS.

INSTALL (2) $\frac{1}{2}$ " DIA. HOLES ON EACH SIDE OF POST & SLEEVE.

BALL CAP TO MATCH BALL CAPS IN RILEY PAVILION PARK.

(4) SURFACE VARIES - SEE PLAN

(5) COMPACTED SUBGRADE

6 8" 21AA CRUSHED STONE BASE, COMPACT TO 95% MOD. PROCTOR.

7 2 1/2" SQUARE, 3/16" THICK WALL TUBULAR ANCHOR SLEEVE. LEAVE (2) HOLES EXPOSED ABOVE GROUND.

8 2 1/2" SQUARE, 3/16" THICK WALL TUBULAR ANCHOR POST.

09 DECORATIVE SIGN POST AND SIGN DETAIL SCALE: NO SCALE

NOTES: 1. BACK OF SIGN PANEL TO BE PAINTED WITH SEMI-GLOSS BLACK ENAMEL PER MANUFACTURER'S RECOMMENDATIONS. POST, SLEEVES, BALL CAP AND ALL PUNCHED HOLES TO BE PRIMED WITH ZINC RICH PRIMER THEN POWDER COATED SEMI-GLOSS BLACK. 3. SIGNS TO BE INSTALLED IN MOOT 200A OR EQUAL BREAK-AWAY SYSTEM FOOTING. SUBMIT SHOP DRAWINGS FOR REVIEW. 4. SIGNS TO BE LOCATED AT BARRIER FREE SPACES PER CODE & AS INDICATED ON THE SIGNAGE PLAN. CITY OF FARMINGTON OAKLAND STREET RECONSTRUCTION LANDSCAPE DETAILS



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20

INCORPORATED INTO EXISTING SUBGRADE.SLOPE TO DRAIN.

SOIL: 2" DEPTH AMENDED, SOIL

NOTES:

FLARE IS NOT VISIBLE SHALL BE REJECTED. DO NOT COVER THE TOP OF THE ROOT BALL WITH SOIL. SET TOP OF ROOT BALL 3" ABOVE FINISH

APPROVED BY OWNER.
3. DO NOT HEAVILY PRUNE THE TREE AT PLANTING. PRUNE ONLY CROSSOVER LIMBS, CO-DOMINANT LEADERS. AND BROKEN OR

DEAD BRANCHES. SOME INTERIOR TWIGS AND LATERAL BRANCHES MAY BE PRUNED, HOWEVER, DO NOT REMOVE THE TERMINAL BUDS OF BRANCHES THAT EXTEND TO THE EDGE OF THE CROWN.

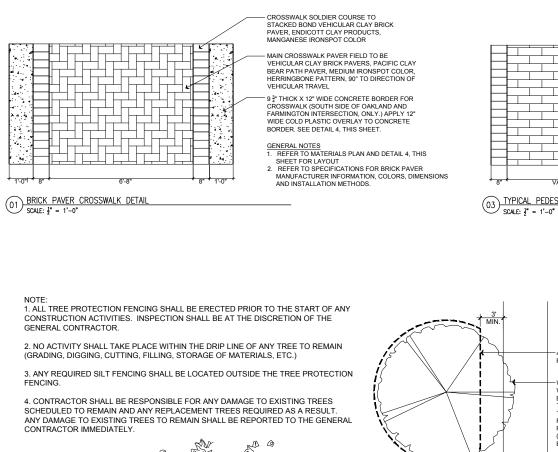
EDGE OF THE CROWN.
MARK THE NORTH SIDE OF THE TREE IN THE
NURSERY, AND ROTATE TREE TO FACE NORTH
AT THE SITE WHEN EVER POSSIBLE.
IF PLANT IS SHIPPED WITH A WIRE BASKET
AROUND THE ROOT BALL, CUT THE WIRE
BASKET IN FOUR PLACES AND FOLD DOWN (8)

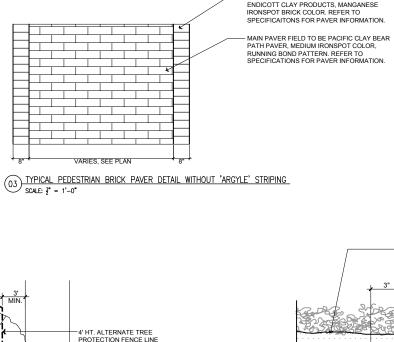
OF ALL PLANTING PITS PRIOR TO
INSTALLATION.
FINAL TREE STAKING PLACEMENT TO BE

THE ROOT BALL. TREES WHERE THE TRUNK

UNDISTURBED OR COMPACTED AMENDED SOIL (AT

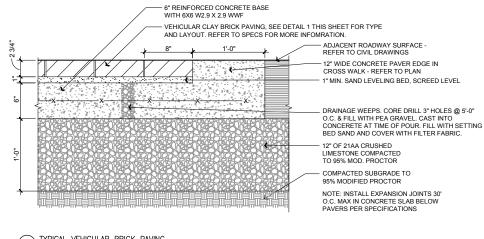
O7 TREE PLANTING
SCALE: ½" = 1'-0"



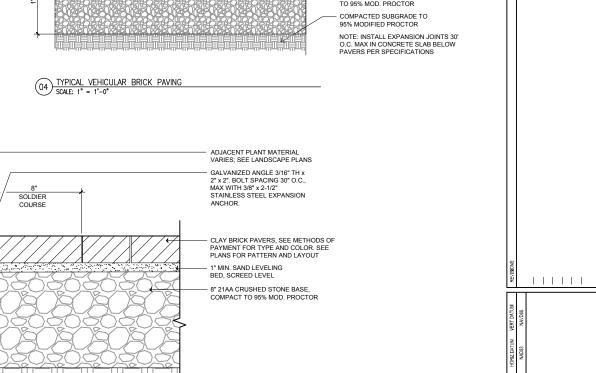


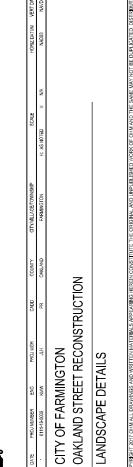
SOLDIER COURSE BORDER TO BE STACKED BOND

05 SECTION OF BRICK ABUTTING PLANTING BED OR LAWN
SCALE: 3" = 1'-0"



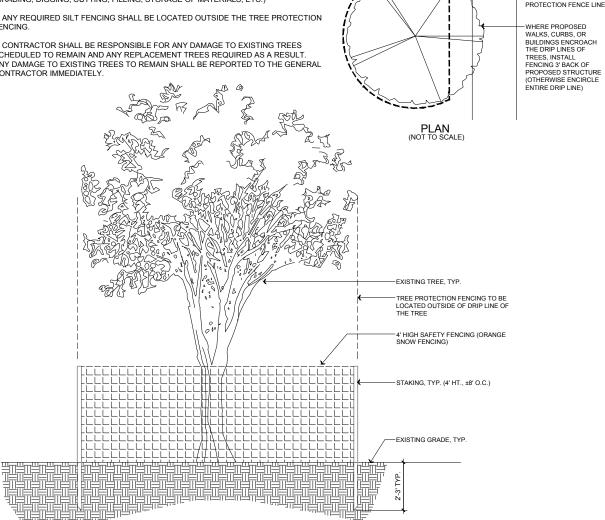
COMPACTED SUBGRADE TO 95% MOD. PROCTOR





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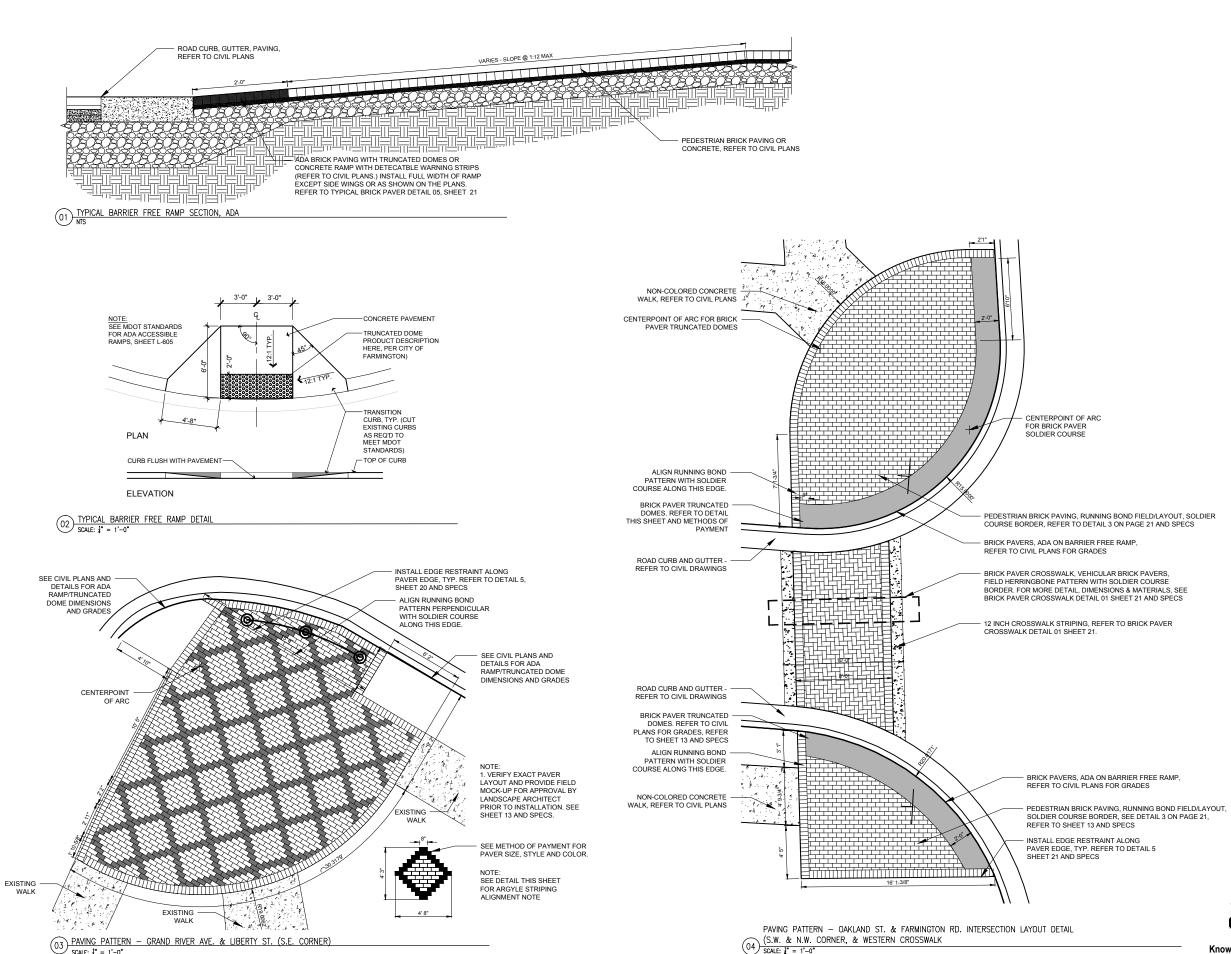
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TREE PROTECTION FENCING DETAIL

SCALE: ½" = 1'-0"



SCALE: 1" = 1'-0"

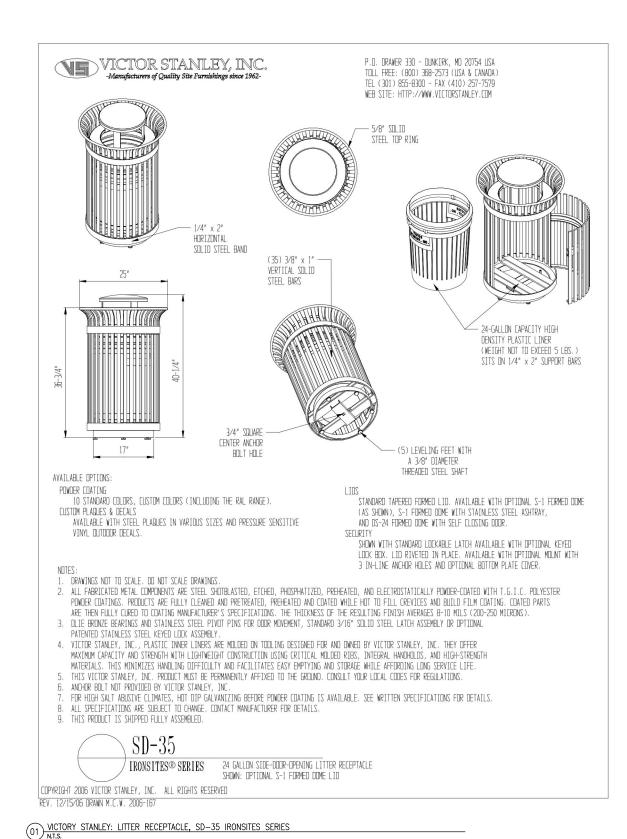
(S.W. & N.W. CORNER, & WESTERN CROSSWALK

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P.O. DRAWER 330 - DUNKIRK, MD 20754 USA VICTOR STANLEY, INC.® TOLL FREE: (800) 368-2573 (USA & CANADA) TEL (301) 855-8300 - FAX (410) 257-7579 WEB SITE: HTTP://WWW.VICTORSTANLEY.COM * ALL DIMENSIONS ARE IN INCHES * 0 24-7/8" - 5/8" SOLID HORIZONTAL STEEL TOP RING SOLID STEEL BAND (35) 3/8" x 1 24-GALLON CAPACITY HIGH VERTICAL SOLID DENSITY PLASTIC LINER STEEL BARS (WEIGHT NOT TO EXCEED 5 LB.) SITS ON 1/4" x 2" SUPPORT BARS (5) LEVELING FEET 16-3/4" 3/4" SQUARE CENTER -WITH A 3/8' DIAMETER ANCHOR BOLT HOLE THREADED STEEL SHAFT AVAILABLE OPTIONS: POWDER COATING 12 STANDARD COLORS, CUSTOM COLORS (INCLUDING THE RAL RANGE) STANDARD TAPERED FORMED LID (AS SHOWN). AVAILABLE WITH OPTIONAL DOME LID, DOME LID WITH STAINLESS STEEL ASHTRAY, RAIN BONNET LID, CUSTOM PLAQUES & DECALS AVAILABLE WITH STEEL PLAQUES IN VARIOUS SIZES AND PRESSURE SENSITIVE RAIN BONNET LID WITH STAINLESS STEEL ASHTRAY, CONVEX LID, CONVEX VINYL OUTDOOR DECALS. LID WITH SELF-CLOSING DOOR. SHOWN WITH STANDARD WITH LOCKABLE LATCH AVAILABLE WITH OPTIONAL KEYED LOCK BOX. LID RIVETED IN PLACE. AVAILABLE WITH OPTIONAL MOUNT WITH 3 IN-LINE ANCHOR HOLES AND OPTIONAL BOTTOM PLATE COVER. 1. DRAWINGS NOT TO SCALE, DO NOT SCALE DRAWINGS. 2. ALL FABRICATED METAL COMPONENTS ARE STEEL SHOTBLASTED, ETCHED, PHOSPHATIZED, PREHEATED, AND ELECTROSTATICALLY POWDER-COATED WITH T.G.I.C. POLYESTER POWDER COATINGS. PRODUCTS ARE FULLY CLEANED AND PRETREATED, PREHEATED AND COATED WHILE HOT TO FILL CREVICES AND BUILD FILM COATING. COATED PARTS ARE THEN FULLY CURED TO COATING MANUFACTURER'S SPECIFICATIONS. THE THICKNESS OF THE RESULTING FINISH AVERAGES 8-10 MILS (200-250 MICRONS). 3. OIL IMPREGNATED BRONZE BUSHINGS AND STAINLESS STEEL PIVOT PINS FOR DOOR MOVEMENT, STANDARD 3/16' SOLID STEEL LATCH ASSEMBLY OR OPTIONAL PATENTED STAINLESS STEEL KEYED LOCK ASSEMBLY. 4. THIS VICTOR STANLEY, INC. PRODUCT MUST BE PERMANENTLY AFFIXED TO THE GROUND. CONSULT YOUR LOCAL CODES FOR REGULATIONS. 5. VICTOR STANLEY, INC., PLASTIC INNER LINERS ARE MOLDED ON TOOLING DESIGNED FOR AND DUNED BY VICTOR STANLEY, INC. THEY OFFER MAXIMUM CAPACITY AND STRENGTH WITH LIGHTWEIGHT CONSTRUCTION USING CRITICAL MOLDED RIBS, INTEGRAL HANDHOLDS, AND HIGH STRENGTH MATERIALS. THIS MINIMIZES HANDLING DIFFICULTY AND FACILITATES EASY EMPTYING AND STORAGE WHILE AFFORDING LONG SERVICE LIFE. 6. ANCHOR BOLT NOT PROVIDED BY VICTOR STANLEY, INC. 7. FOR HIGH SALT ABUSIVE CLIMATES, HOT DIP GALVANIZING BEFORE POWDER COATING IS AVAILABLE. SEE WRITTEN SPECIFICATIONS FOR DETAILS. 8. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE. CONTACT MANUFACTURER FOR DETAILS. 9. THIS PRODUCT IS SHIPPED PARTIALLY UNASSEMBLED. 24-GALLON SIDE-DOOR-OPENING LITTER RECEPTACLE IRONSITES® SERIES SHOWN: STANDARD TAPERED FORMED LID COPYRIGHT 2010 VICTOR STANLEY, INC. ALL RIGHTS RESERVED REV. 9/14/10 DRAWN R.J.C. 2010-105

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GENERAL ELECTRICAL NOTES

- ALL ELECTRICAL EQUIPMENT AND INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE CURRENT NATIONAL ELECTRICAL CODE AND ANY LOCAL AMENDMENTS.
 THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACQUISITION OF AN ELECTRICAL PERMIT AND
- SCHEDULING OF THE NECESSARY INSPECTIONS.

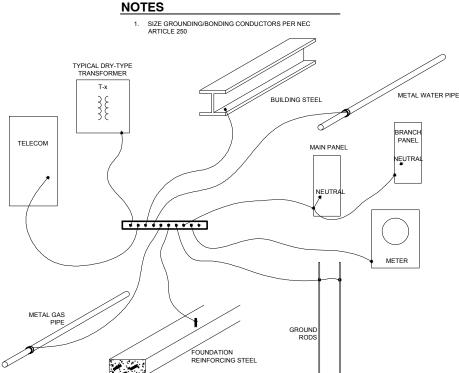
 3. THE ELECTRICAL CONTRACTOR SHALL PROVIDE TEMPORARY CONSTRUCTION POWER FROM THE EXISTING MAIN PANEL
- THE ELECT INCAL CONT RACTOR SHALL PROVIDE I EMPORARY CONSTRUCT ION PER FROM THE EXISTING MAIN PANEL PER SPECIFICATIONS. ALSO PROVIDE TEMPORARY LIGHTING PER THE PROJECT MANUAL.

 4. ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTIONS.

 5. A BOUND MANUAL SHALL BE SUBMITTED UPON COMPLETION WITH MAINTENANCE INSTRUCTIONS, PARTS LISTS, AND MANUFACTURER'S WARRANTIES. ALSO A WARRANTY FROM THE ELECTRICAL CONTRACTOR SHALL BE INCLUDED IN THIS MANUAL, ONE COPY OF THE RECORD DRAWINGS AND FINAL INSPECTION REPORT SHALL BE INCLUDED AT THIS TIME.

 6. THE CONTRACTOR SHALL INSTRUCT THE OWNER OR THE OWNER'S REPRESENTATIVE IN THE OPERATION AND
- MAINTENANCE OF THE ELECTRICAL SYSTEM
- MAINTENANCE OF THE ELECTRICAL STSTEM.

 ACCEPTABLE WIRING METHODS: CONCEALED CONDUIT & WIRE PER THE LOCAL ELECTRICAL CODE. ALL WIRING SHALL BE CONCEALED WITHIN WALLS AND ABOVE CEILINGS IN ALL FINISHED SPACES. PVC-40 WITH THHINTHWN COPPER WIRE SHALL BE USED FOR ALL UNDERGROUND CIRCUITS AND FEEDERS. MC CABLE SHALL ONLY BE USED FOR FIXTURE WHIPS ABOVE CEILINGS.
- 8. SWITCHES AND RECEPTACLE DEVICES SHOWN ADJACENT ON THE FLOOR PLAN SHALL BE IN MULTI-GANG BOXES. ALL LOW VOLTAGE WIRING SHALL MAINTAIN MINIMUM 2" SEPARATION FROM THE 120/208V OR 277/480V SYSTEMS.
- WIRING DEVICES SHALL BE COMMERCIAL SPECIFICATION GRADE, COLOR TO MATCH EXISTING. INTERIOR DEVICE PLATES
 TYPE AND COLOR SHALL MATCH EXISTING. PROVIDE WEATHERPROOF WHILE IN USE COVER FOR EXTERIOR
- 10. IDENTIFY EACH JUNCTION BOX AND RECEPTACLE WITH THE PANEL & CIRCUIT NUMBER. COMPLETE EACH PANEL CIRCUIT



ELECTRICAL LEGEND AND SYMBOLS

PROPOSED	EXISTING	DEMOLITION	
			SWITCH LOOP WIRING
			CIRCUIT WIRING
	_ · _	_ · _	UNDERGROUND WIRING
			UN-SWITCHED HOT WIRING

SWITCHES, RECEPTACLES AND OUTLETS							
S	SINGLE POLE SWITCH						
S	THREE-WAY SWITCH						
S ₃ S ⁴	FOUR-WAY SWITCH						
S ₂	DIMMER SWITCH						
S. DM	KEY-OPERATED SWITCH						
S_K	TIMER SWITCH						
ST	PILOT LIGHT SWITCH						
S S S S S S	MOTION DETECTION SWITCH - WALL						
S	MOTION DETECTION SWITCH - CEILING MOUNT						
SS ₃₃	PROVIDE DOUBLE SWITCHING. THE TWO OUTSIDE LAMPS OF EACH FIXTURE TO BE CONTROLLED BY ONE SWITCH AND THE TWO MIDDLE LAMPS OF EACH FIXTURE TO BE CONTROLLED BY THE OTHER SWITCH.						
S _F V	FAN SWITCH						
$^{\oplus}_{\lambda}$	LOW VOLTAGE SWITCH						
WP	DUPLEX GROUNDED RECEPTACLE						
" G ∯	WEATHERPROOF RECEPTACLE & COVER, GFI						

DUPLEX RECEPTACLE WITH GROUND FAULT

CTR 208V, 1¢ GROUNDED RECEPTACLE COUNTERTOP RECEPTACLE QUADRUPLEX RECEPTACLE

FLOOR RECEPTACLE SIMPLEX RECEPTACLE

T \bigcirc

PUSH BUTTON \square_{PC} PHOTO CELL

TELEPHONE/COMMUNICATIONS

- TELEPHONE/DATA OUTLET. SEE DETAIL.
- TELEPHONE OUTLET. SEE DETAIL.
- FLOOR TELEPHONE/DATA OUTLET
- (S) CEILING SPEAKER, FLUSH MTD. WITH BACKBOX AND GRILLE
- < WALL SPEAKER
- WALL MTD. CLOCK MTD. 6'-8" AFF
- T∙y CABLE TV OUTLET
- BELL B
- CALL BACK SWITCH
- (M) MICROPHONE JACK
 - PS POWER SUPPLY ABOVE CEILING
- WIRE GUARD WHERE NOTED WG
- KEYPAD K
- GLASS BREAK DETECTOR CEILING MOUNTED
- -(-)-
- TWO WAY AMPLIFIER
- AMPLIFIER À
- SECURITY CAMERA \square
- ELECTRIC DOOR LOCK **6**
- PROXIMITY READER ACCESS CONTROL ₹R
- ENTRANCE CALL SYSTEM (ÎC)
- NURSE CALL LIGHT W
- NURSE CALL PULL STATION ·N

- FIRE ALARM SYSTEM $\Omega_{\rm c}$ OUTDOOR BELL/CHIME
- S SMOKE DETECTOR
- --- DUCT SMOKE DETECTOR
- (H) HEAT DETECTOR
- ☐□ FIRE ALARM STROBE CEILING MOUNT
- FKI FIRE ALARM HORN AND STROBE
- F F FIRE ALARM SPEAKER AND STROBE
- FIQ FIRE ALARM STROBE
- FIRE ALARM SPEAKER AND STROBE CEILING MOUNT
- FIRE ALARM HORN AND STROBE CEILING MOUNT
- □ FIRE ALARM CHIME AND STROBE
- FIRE ALARM CHIME AND STROBE CEILING MOUNT
- F FIRE ALARM PULL STATION
- ELECTRO./MAG. DOOR HOLD OPEN
- FIRE ALARM FLOW SWITCH
- TS FIRE ALARM TAMPER SWITCH FAA FIRE ALARM ANNUNCIATOR PANEL
- FACE FIRE ALARM CONTROL PANEL
- FIRE ALARM SPEAKER CEILING MOUNT
- FIRE ALARM SPEAKER WALL MOUNT

LIGHT FIXTURES

- □ SURFACE CEILING MOUNT
- EMERGENCY SURFACE CEILING MOUNT
- PENDANT/CHAIN MOUNT
- EMERGENCY PENDANT/CHAIN MOUNT
- RECESSED MOUNT
- EMERGENCY RECESSED MOUN
- EXTERIOR POLE LIGHT
- EMERGENCY WALL PACK
- EXTERIOR WALL MOUNT
- EMERGENCY EXTERIOR WALL MOUNT
- \otimes EXIT LIGHT - CEILING MOUNT
- EXIT LIGHT WALL MOUNT
- 0 RECESSED CAN LIGHT
- INTERIOR WALL MOUNT
- EMERGENCY INTERIOR WALL MOUNT
- CEILING FAN
- MOTION SENSOR

POWER DISTRIBUTION

- □ DISCONNECT SWITCH
- \boxtimes^J COMBINATION MOTOR STARTER, DISCONNECT SWITCH
- \boxtimes
- ELECTRIC METER
- LIGHT, POWER OR DISTRIBUTION PANEL SURFACE MOUNT LIGHT, POWER OR DISTRIBUTION PANEL - FLUSH MOUNT
- ✓ MOTOR
- R RELAY

ABBREVIATIONS

ABOVE FINISHED FLOOR CATALOG CB CIRCUIT BREAKER
CMU CONCRETE MASONRY UNIT
C CONDUIT CO. COMPANY
CUH CABINET UNIT HEATER

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ELECTRICAL CONTRACTOR EXHAUST FAN ELECTRIC WATER COOLER

FIRE ALARM GEL GROUND FAULT INTERRUPTER

HIGH PRESSURE SODIUM

HVAC HEATING, VENTILATING & AIR CONDITIONING

KEY OPERATED DEVICE KILOVOLT-AMPERES

MCB MAIN CIRCUIT BREAKER MCB MAIN CIRCUIT BREAKER
MDP MAIN DISTRIBUTION PANEL
MH METAL HALIDE
MISC MISCELLANEOUS
MLO MAIN LUG ONLY
MTD MOUNTED

NO NUMBER PILOT LIGHT

RECEPRECEPTACLE TRANS TRANSFORMER

TELEPHONE TELEVISION TYPICAL TEL TV TYP

UGE UNDERGROUND ELECTRIC
UH UNIT HEATER
UON UNLESS OTHERWISE NOTED

VOLT-AMPERES W

WIRE WEATHERPROOF SPECIAL

Ø PHASE

NOTES

- 1. MINIMUM SIZE OF RIGID CONDUIT SHALL BE 3/4", UNLESS OTHERWISE
- 2. MINIMUM SIZE OF FLEX CONDUIT SHALL BE 1/2", UNLESS OTHERWISE
- 3. MINIMUM SIZE WALL BOX IN CMU SHALL BE 4"x4", UNLESS OTHERWISE NOTED.

 WHERE MOTION DETECTOR SWITCHES ARE PROVIDED, PROVIDE BALLASTS WHICH ARE COMPATIBLE WITH SWITCHES.

 MINIMUM SIZE OF UNDERGROUND CONDUIT SHALL BE 1 1/4", UNLESS

OTHERWISE NOTED.

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STREET RECONSTRUCTION

FARMINGTON

SYMBOL

LEGEND &

OAKLAND STREET

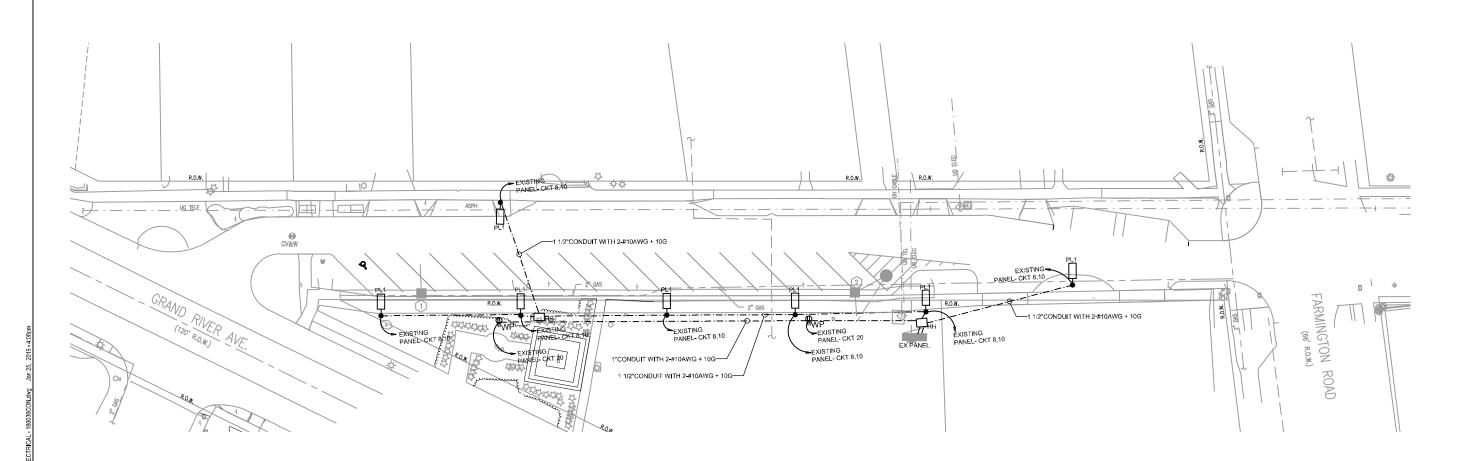
(50' R.O.W.)



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QUANTITIES THIS SHEET TOTAL UNIT DESCRIPTION

Conduit, DB, 1, 1 1/2 inch Conduit, DB, 1, 1 inch Wire #10AWG 360 Ft 180 Ft

Ground Mounted Receptacle Hand Hole

2 Ea

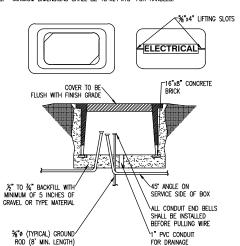
Pole and Luminaire

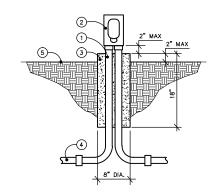
CITY OF FARMINGTON
OAKLAND STREET RECONSTRUCTION
ELECTRICAL SITE LIGHTING PLAN

EX PANEL			DESCRI	DESCRIPTION: EXISTING PANEL SURFACE MOUNT, 240/120V, 1¢, 4W, 100A, MCB, 20 CIRCUIT																
	KVA	LOAD				늘		TIO				KVA LOAD								
IDENTIFICATION	А	В	WIRE	POLE	AMP	CIRCUIT		CIRCUIT	AMP	POLE	WIRE	В	Α	IDENTIFICATION						
LIGHTS	0.00		EX.	2	20	1		2	20	1	EX.		0.00	NW ISLAND						
Lioinio		0.00]	_	20				▎▔▘▐	20	20	3	1	4	20	1	EX.	0.00		SE ISLAND
PHOTOCELL	-		EX.	1	20	5	ĺ	6	20	1	EX.		-	SW ISLAND						
TWIST LOCK		-	EX.	1	30	7	1	8	20	2	#10	-		OAKLAND ST LIGHTS						
GFCI	-		EX.	1	20	9	1	10	20	2	#10		-	OAKLAND ST LIGHTS						
GFCI		-	EX.	1	20	11		12	20	1	EX.	1		PULL BOX						
GFCI	-		EX.	1	20	13	Ì	14	20	1	EX.		-	LIGHT POLE PLUGS						
GFCI		-	EX.	1	20	15	1	16	20	1	EX.	-		PULL BOX						
GFCI	-		EX.	1	20	17	1	18	20	1	EX.		-	SPRINKLER						
NE ISLAND		-	EX.	1	20	19		20	20	1	#10	1		GROUND MOUNTED RECEPTACLES						
CONNECTED LOAD	0.00	0.00										0.00	0.00	CONNECTED LOAD						

- BOX AND COVER SHALL BE CONCRETE OR COMPOSITE. METAL COVER IS ACCEPTABLE.
 COVERS SHALL BE SECURED WITH 3/6" BOLTS, NUTS, AND WASHERS. WHICH SHALL BE BRASS, STAINLESS STEEL OR OTHER CORROSION RESISTANT MATERIAL. STAINLESS STEEL SHALL HAVE A CHROMIUM CONTENT OF NOT LESS THAN 18% AND A NICKEL CONTENT OF NOT LESS THAN 8%, NUTS SHALL BE RECESSED BELOW TOP SURFACE OF COVER.
- 3. COVER LETTERING SHALL BE 1/2"MINIMUM LETTERS CAST IN STANDARD MARKINGS: (ELECTRICAL).

 4. CONDUIT ENTERING THE BOX SHALL HAVE 90° LONG RADIUS BEND (INSIDE THE
- BOX). THE CONDUITS OPENING, INSIDE THE BOX, SHALL BE AT LEAST 4" BELOW THE LID, OPENING SHALL HAVE SMOOTH EDGE. IF THE CONDUIT IS P.V.C. A SLIP COUPLING MUST BE USED. IF THE CONDUIT IS RIGID PIPE, A PROTECTIVE BUSHING SHALL BE USED.
- CONDUCTORS SHALL HAVE A MINIMUM OF 24" SLACK FROM CONDUIT BELL END.
- BACKFILL WITH EXCAVATED MATERIAL AND THOROUGHLY COMPACT.
 WHERE PULLBOXES ARE INSTALLED IN CONCRETE AREAS, 1/8" PREMOLDED
- EXPANSION JOINT SHALL BE INSTALLED AROUND THE BOX. 8. MINIMUM DIMENSIONS SHALL BE 13"x24"x18" FOR HANDLES.





- 1 RIGID CONDUIT
- © SINGLE GANG TYPE "FSS" BOX W/ WEATHER PROOF COVER AND G.F.I. PROTECTED DUPLEX RECEPTACLE. FINISH: BLACK
- 4 BRANCH CIRCUIT RIGID PVC CONDUIT FINISH GRADE

NOTE: PROVIDE A 12" LONG PIECE OF P1000 UNISTRUT EXTENDED INTO CONRETE BASE TO SUPPORT THE "FSS" BOX. PAINT ALL EXPOSED UNISTRUT BLACK. (UNISTRUT NOT VISIBLE IN DETAIL)

RECEPTACLE CONDUITS SHALL BE 1".

PULL BOX DETAIL

GROUND MOUNTED DUPLEX RECEPTACLE



SEE DRAWINGS FOR DIMENSIONS

4

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11)

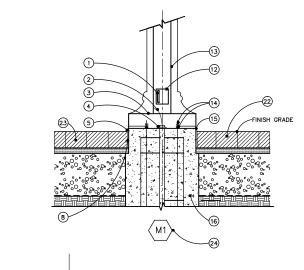
	TYPE	DESCRIPTION	MANUFACTURER	CATALOG#	LAMPS	BALLASTS	REMARKS
	PL1 F	POLE MOUNTED LUMINAIRE	KING LUMINAIRE	K134R-P4AR-III-60(SSL)-7030 -120:277V-K4/K12-4K-BK			TEXTURED BLACK WITH C/W #3 FINISH. PURCHASE WITH KING I UMINAIRE POLE MODEL #
			-	-	4000K, 70CRI	100 WATTS	
		-	-			KF31-10-DR.	



Livonia, MI 48150 P (734) 522-6711 F (734) 522-642

OHM-ADVISORS COM

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20" ø

TYPICAL PEDESTRIAN LIGHT POLE INSTALLATION DETAILS - TYPES 1 AND 2

- TUSE (S) IN CKT. TO BALLAST WITH BUSS TYPE "BBS" FUSE (S) AND BUSS "TRON" HEH WATERPROOF FUSE HOLDERS. SIZE FUSES AS REQUIRED BY LUMINAIRE MANUFACTURER 2 CONNECT GROUND TO POLE BASE W/ BURNDY NO. GB4C 3 BASE COVER — VERIFY DIAMETER IN FIELD AND REPORT ANY DISCREPANCIES BETWEEN BASE COVER AND FOOTING DIAMETER TO THE LANDSCAPE ARCHITECT AND ELECTRICAL ENGINEER
- 4 BUSH CONDUITS
- 5 1" CHAMFER
- 6 FACE OF CURB
- 7 NO. 8 TW GREEN GROUND WIRE
- (8) POLYMERIC SAND JOINT
- 9 ₹ PVC CONDUIT FOR GROUND WIRE
- GROUND ROD CLAMP BURNDY NO. GAR-644C
- 1) §" x 8' COPPER WELD GROUND ROD
- 12 HAND HOLE 4" X 6" (NOMINAL)
- (13) USE NO. 12 TW IN POLE
- (14) PROJECT ANCHOR BOLTS 3" ABOVE TOP OF BASE. PROVIDE DOUBLE NUTS FOR LEVELING UNIT (ONE ABOVE AND ONE BELOW BASE FLANGE)
- GROUT VOID BETWEEN BASE FLANGE AND TOP OF CONCRETE. HAND FINISH. PROVIDE & WEEPHOLE THROUGH GROUT AT BASE OF POLE
- (16) REINFORCED CONCRETE BASE
- ANCHOR BOLTS TO BE FURNISHED BY POLE MANUFACTURER
- 18 SEE PLANS FOR TYPE OF WRING
- (19) 4 NO. 5 REBAR
- WELD NO. 5 TIE RODS ALL AROUND

 12" 0/C
- 21 LAWN OR PLANTING AREAS
- 22 LIGHT POLE BASE DETAIL -BRICK PAVING
- 23 BRICK PAVERS
- MOUNTING TYPE DESIGNATIONS REFER TO ELECTRICAL PLANS



Know what's below. Call before you dig.

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CITY OF FARMINGTON
OAKLAND STREET RECONSTRUCTION
ELECTRICAL DETAILS & SCHEDULES