



ARCHITECTURE REVIEW COMMITTEE
CITY HALL CONFERENCE ROOM 202
151 MARTIN ST, Birmingham, MI

FRIDAY – Oct. 14, 2016
8:00 AM

NOTICE OF MEETING

PLEASE TAKE NOTICE that a Regular Meeting of the Architectural Review Committee will take place on Friday, Oct. 14, 2016 in City Hall Conference Room 202, at 151 Martin St., Birmingham, MI 48009. The meeting will begin at 8:00 a.m.

MEETING AGENDA

1. Roll Call
2. Approve the Meeting minutes from Sept. 16, 2016 meeting
3. Review the plans for traffic signal replacements at the intersection of 14 Mile Rd. and Southfield Rd.
4. Adjournment

Approved minutes of this meeting will be available in the City Manager's Office or online at www.bhamgov.org.

THIS NOTICE IS GIVEN in accordance with Act 261, 1968 Public Act 267.

Posted October 7, 2016

Notice: Due to Building Security, public entrance during non-business hours is through the Police Department—Pierce St. Entrance only. Individuals with disabilities requiring assistance to enter the building should request aid via the intercom system at the parking lot entrance gate on Henrietta St.

Persons with disabilities that may require assistance for effective participation in this public meeting should contact the City Clerk's Office at the number (248) 530-1880, or (248) 644-5115 (for the hearing impaired) at least one day before the meeting to request help in mobility, visual, hearing, or other assistance.

Las personas con incapacidad que requieren algún tipo de ayuda para la participación en esta sesión pública deben ponerse en contacto con la oficina del escribano de la ciudad en el número (248) 530-1800 o al (248) 644-5115 (para las personas con incapacidad auditiva) por lo menos un día antes de la reunión para solicitar ayuda a la movilidad, visual, auditiva, o de otras asistencias. (Title VI of the Civil Rights Act of 1964).



DRAFT MINUTES

Architectural Review Committee

City Hall Lower Level Conference Room
151 Martin St., Birmingham, MI
248.530.1807
Friday, Sept. 16, 2016

Meeting called to order at 8:10 a.m.

Present: Larry Bertollini, Scott Bonney

Absent: Chris Longe

City Staff: Joe Valentine, City Manager
Jana Ecker, Planning Director
Joellen Haines, Assistant to the City Manager

Discussion began regarding the relocation of the bus shelter location on W. Maple and Pleasant in front of First United Methodist Church to several feet east of the original location, to keep the site angles in front of the church open.

Bonney said regarding its location that he likes it and has no problem with it. Bertollini said his only concern is that it is next to a driveway and may have site line issues, but if the church prefers it there, then he doesn't have a problem with it there. Ecker pointed out that the bus shelter is set pretty far back and would not impact site lines from the driveway near it.

Ecker also noted that SMART did not have a problem with the relocation of the stop.

Motion by Bonney to accept this revised location, seconded by Bertollini, 2 yeas, 0 nays.

1. The ARC recommends the proposed revised location of the bus shelter.

Motion Passed, 2-0.

Discussion on the approval of meeting minutes from July 15, 2016 meeting. Motion to approve by Bonney, seconded by Bertollini, 2 yeas, 0 nays.

The meeting was adjourned at 8:25 a.m.

Manager's Directives Resulting from the Architectural Review Committee Meeting of Sept. 16, 2016:

1. To concur with the ARC's recommendation for the revised location of the bus shelter.

| TRAFFIC VOLUME | | |
|---------------------|-----------|--------|
| ROAD NAME: | 2014 | 2034 |
| SOUTHFIELD ROAD (N) | 9,000 | 11,000 |
| SOUTHFIELD ROAD (S) | 14,000 | 17,000 |
| 14 MILE ROAD (E) | 9,200 | 12,100 |
| 14 MILE ROAD (W) | 1,900 | 2,150 |
| COMMERCIAL | 3.0% | 3.0% |
| POSTED SPEED | | |
| SOUTHFIELD ROAD (N) | 35/25 MPH | |
| SOUTHFIELD ROAD (S) | 45 MPH | |
| 14 MILE ROAD (E) | 35 MPH | |
| 14 MILE ROAD (W) | 25 MPH | |

ROAD COMMISSION FOR OAKLAND COUNTY

IN CO–OPERATION WITH

MICHIGAN DEPARTMENT OF TRANSPORTATION

AND

FEDERAL HIGHWAY ADMINISTRATION

14 MILE ROAD AND SOUTHFIELD ROAD

CITY OF BIRMINGHAM AND VILLAGE OF BEVERLY HILLS

CO. 55

RCOC JOB NO. Co 55
MDOT CONTROL SECTION NO. #####
MDOT JOB NO. #####

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.

PAVEMENT MARKING AND PLACING OF TRAFFIC CONTROL SIGNS SHALL BE DONE IN ACCORDANCE WITH THE 2011 MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, AS AMENDED. THIS WORK WILL BE DONE PRIOR TO THE FINAL ACCEPTANCE OF THIS PROJECT.

THE LOCATION OF ALL PUBLIC UTILITIES SHOWN ON THESE PLANS IS TAKEN FROM THE BEST AVAILABLE DATA. THE BOARD OF ROAD COMMISSIONERS FOR OAKLAND COUNTY WILL NOT BE RESPONSIBLE FOR ANY OMISSION OR VARIATIONS FROM THE LOCATIONS SHOWN. PURSUANT TO ACT 53 OF THE PA OF 1974 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, (248) 647–7344, OR 811.

THE ROAD COMMISSION FOR OAKLAND COUNTY, AS AN AUTHORIZED PUBLIC AGENCY UNDER THE EROSION AND SEDIMENTATION CONTROL PROGRAM–PUBLIC ACT 451, HAS PROVIDED FOR EROSION AND SEDIMENTATION CONTROL BY MEANS OF SODDING, SEEDING AND OTHER METHODS. THE ROAD COMMISSION WILL MAINTAIN THESE FACILITIES UPON COMPLETION OF THE CONTRACT.

THE PROPOSED IMPROVEMENTS COVERED BY THESE PLANS ARE IN ACCORDANCE WITH CURRENT MICHIGAN DEPARTMENT OF TRANSPORTATION LOCAL AGENCY PROGRAMS GUIDELINES FOR GEOMETRICS DATED AUGUST 28, 2009 4R.

THE ELEVATIONS ARE BASED ON U.S,G,S, DATUM.

INDEX OF SHEETS

- 1 – COVER SHEET
- 2 – LEGEND SHEET
- 3 – GENERAL INFORMATION SHEET
- 4 – TS REMOVAL PLAN
- 5 – TS INSTALLATION PLAN
- 6 – ADA SIDEWALK DETAILS

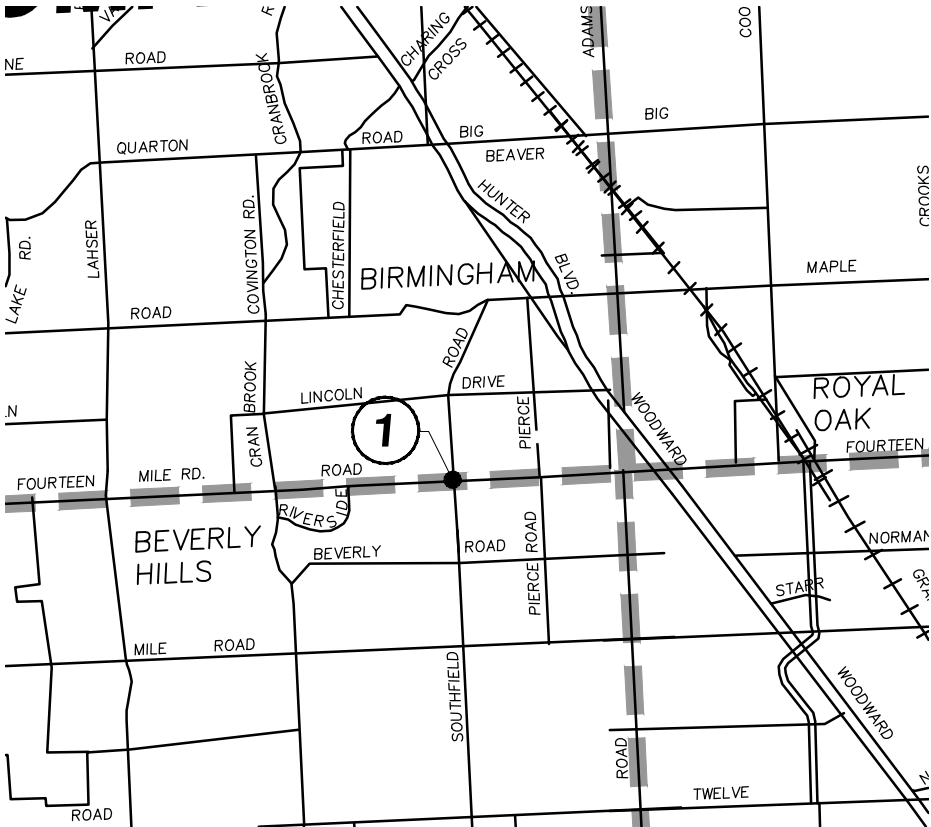
STANDARD PLANS

CONSTRUCTION OF THE FOLLOWING ITEMS, WHERE CALLED FOR ON THE PLANS, WILL BE CONSTRUCTED ACCORDING TO MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARD PLANS AS INDICATED.

| ITEM OF WORK | STANDARD PLAN NUMBERS | WORK ZONE DETAILS |
|---|-----------------------|-------------------|
| SIDEWALK RAMP AND DETECTABLE WARNING DETAILS | * R–28–H | |
| SOIL EROSION & SEDIMENTATION CONTROL MEASURES | R–96–E | |
| SCONCRETE PAVEMENT REPAIR | R–44–F | |

TRAFFIC SAFETY STANDARD PLANS

| | | |
|-----------------------------------|--|------------|
| TEMPORARY TRAFFIC CONTROL DEVICES | | WZD–125–E* |
| * REFER TO SPECIAL DETAIL | | |



STATE OF MICHIGAN
BOARD OF ROAD COMMISSIONERS
FOR OAKLAND COUNTY

BOARD OF ROAD COMMISSIONERS

RONALD J. FOWKES – CHAIRMAN
ERIC S. WILSON – VICE CHAIRMAN
GREGORY C. JAMIAN – COMMISSIONER

DENNIS G. KOLAR, P.E. – MANAGING DIRECTOR

PROJECT NO. CO 55 CITY OF SOUTHFIELD

ROADS MILFORD ROAD AND 11 MILE ROAD

CONTRACT FOR : TRAFFIC SIGNAL INSTALLATION

PLANS PREPARED BY

DANIELLE DANEAU, P.E.
DIRECTOR, TRAFFIC–SAFETY

DATE

APPROVED BY

GARY PIOTROWICZ, P.E., P.T.O.E.
COUNTY HIGHWAY ENGINEER/
DEPUTY MANAGING DIRECTOR

DATE

(SEAL)

(SEAL)

| REVISIONS | RECOMMENDED FOR APPROVAL | | APPROVED | |
|-------------|--------------------------|------|----------|------|
| | BY | DATE | BY | DATE |
| DESCRIPTION | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

CONTROL SECTION: ###
MDOT JOB NUMBER: ###

PROJECT NAME: 14 MILE ROAD AND SOUTHFIELD ROAD

PROJECT NUMBER: CO 55

LEGEND SHEET



Know what's below.
Call before you dig.

TRAFFIC SIGNAL

| | | | |
|--------|---|--|-----------|
| | INSTALL 12" VEHICULAR TRAFFIC SIGNAL (1-WAY SHOWN) | | M.H. 1234 |
| | INSTALL VEHICULAR TRAFFIC SIGNAL WITH SALVAGED HEADS (2-WAY SHOWN) | | EX. H.H. |
| | EXISTING VEHICULAR TRAFFIC SIGNAL (1-WAY SHOWN) | | |
| | REMOVE VEHICULAR TRAFFIC SIGNAL (1-WAY SHOWN) | | 2-3" D.B. |
| | INSTALL PEDESTRIAN (COUNTDOWN TYPE) TRAFFIC SIGNAL (2-WAY SHOWN) | | 2-3" |
| | INSTALL PEDESTRIAN (COUNTDOWN TYPE) TRAFFIC SIGNAL WITH SALVAGED HEAD (2-WAY SHOWN) | | M.H. 5678 |
| | REMOVE PEDESTRIAN (WALK-DON'T WALK) TRAFFIC SIGNAL (1-WAY SHOWN) | | M.H. 9012 |
| | EXISTING PEDESTRIAN (WALK-DON'T WALK) TRAFFIC SIGNAL (1-WAY SHOWN) | | M.H. 3456 |
| | INSTALL JUNCTION BOX | | M.H. 7890 |
| | INSTALL SALVAGED JUNCTION BOX | | |
| | REMOVE JUNCTION BOX | | |
| | EXISTING JUNCTION BOX | | |
| | INSTALL OVERHEAD PLASTIC JACKETED CABLE | | |
| | EXISTING OVERHEAD PLASTIC JACKETED CABLE | | |
| | REMOVE OVERHEAD PLASTIC JACKETED CABLE | | |
| | INSTALL TRAFFIC SIGNAL CONTROLLER (NEW OR SALVAGED AS INDICATED). (EXCEPT AS OTHERWISE INDICATED) | | |
| | INSTALL MAST ARM POLE & MAST ARM (SIZES AS INDICATED) ON NEW FOUNDATION (EXCEPT AS OTHERWISE INDICATED). | | |
| | INSTALL TRAFFIC SIGNAL PEDESTAL ON NEW FOUNDATION (EXCEPT AS OTHERWISE INDICATED). | | |
| | INSTALL ANCHOR BASE STEEL STRAIN POLE (SIZE AS INDICATED) ON NEW FOUNDATION. (EXCEPT AS OTHERWISE INDICATED). | | |
| | EXISTING TRAFFIC SIGNAL CONTROLLER | | |
| | EXISTING MAST ARM STANDARD | | |
| | EXISTING PEDESTAL | | |
| | EXISTING STEEL STRAIN POLE | | |
| | BAG SIGNALS AS DIRECTED BY ENGINEER. (INCLUDED IN INSTALLATION OF T.S. ON THIS CONTRACT). | | |
| | REMOVE BAG AS DIRECTED BY ENGINEER. (INCLUDED IN INSTALLATION OF T.S. ON THIS CONTRACT). | | |
| POCH | POLE CONTACT HEIGHT OF T.S. SPAN WIRE | | |
| L.C.H. | LOW CONTACT HEIGHT OF SPAN WIRE T.S. TO SPAN WIRE. | | |
| | INSTALL WARNING SIGN (TYPE AS INDICATED ON PLANS). | | |
| | INSTALL 2-WAY CASE SIGN | | |
| | REMOVE 2-WAY CASE SIGN | | |
| | EXISTING 2-WAY CASE SIGN | | |
| | INSTALL 4-WAY CASE SIGN | | |
| | REMOVE 4-WAY CASE SIGN | | |
| | EXISTING 4-WAY CASE SIGN | | |

UNDERGROUND

| | |
|--|--|
| EXISTING MANHOLE | |
| EXISTING HANDHOLE | |
| EXISTING DUCT RUN | |
| REMOVE EXISTING DUCT RUN | |
| BUILD DIRECT BURIAL CONDUIT (D.B.) OR ENCASED CONDUIT (E.C.) (2-3" D.B. SHOWN) | |
| GALVANIZED IRON CONDUIT (2-3" SHOWN) | |
| BUILD NEW MANHOLE (2-WAY) | |
| BUILD NEW MANHOLE (3-WAY) | |
| BUILD NEW MANHOLE (4-WAY) | |
| BUILD NEW MANHOLE (CORNER) | |
| BUILD ROUND HANDHOLE | |
| BUILD SQUARE HANDHOLE | |
| BUILD TYPE "D" HANDHOLE | |
| EXISTING DIRECT BURIAL OR PARKWAY CABLE | |
| ABANDON DIRECT BURIAL OR PARKWAY CABLE | |
| INSTALL DIRECT BURIAL CABLE (NO. & SIZE AS INDICATED) | |
| EXISTING U.G.-FED ST. LTG. UNIT | |
| REMOVE U.G.-FED ST. LTG. UNIT & FDN. (EXCEPT AS OTHERWISE INDICATED) | |
| INSTALL COMB. T.S. & ST. LTG. STD. (SIZE AS SPECIFIED) ON NEW FDN., 6FT. CLAMP ON BRACKET ARM WITH 3'-0" RISE, INSTALL 400W. TYPE LUMINAIRE. | |

TRAFFIC SIGNAL

| | |
|---|--|
| INSTALL OVERHEAD DETECTION CAMERA MOUNTED AS INDICATED ON THE PLANS. | |
| INSTALL SALVAGED OVERHEAD DETECTION CAMERA MOUNTED AS INDICATED ON THE PLANS. | |
| EXISTING OVERHEAD DETECTION CAMERA | |
| REMOVE OVERHEAD DETECTION CAMERA | |
| DETECTION AREA FOR OVERHEAD DETECTOR | |
| WIRELESS VEHICLE DETECTION AREA | |
| INSTALL LOOP DETECTOR & CABINET (EXCEPT AS OTHERWISE INDICATED). | |
| EXISTING LOOP DETECTOR & CABINET | |
| INSTALL OPTICAL DETECTOR AS SHOWN ON PLANS | |

OVERHEAD

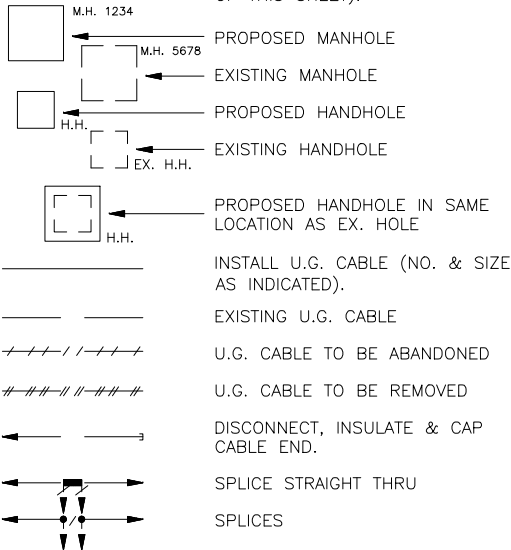
| | |
|---|------|
| EXISTING OR REMOVE WOOD POLE AS INDICATED | |
| REPLACE WOOD POLE (HEIGHT & CLASS AS INDICATED) | |
| INSTALL WOOD POLE (HEIGHT & CLASS AS INDICATED) (USE SALVAGED POLE WHERE INDICATED) | |
| EXISTING OVERHEAD ST. LTG. UNIT | |
| REMOVE OVERHEAD ST. LTG. UNIT | |
| INSTALL OVERHEAD ST. LTG. UNIT | |
| EXISTING OVERHEAD LINE | |
| REMOVE OVERHEAD LINE | |
| INSTALL OVERHEAD LINE | |
| INSTALL & LATER REMOVE OVERHEAD LINE | |
| INSTALL GUY & ANCHOR (1/2" GUY SHOWN) | |
| REMOVE GUY & ANCHOR ROD | |
| INSTALL POLE GUY (1/2" GUY SHOWN) | |
| INSTALL ARM GUY (3/8" GUY SHOWN) | |
| REMOVE GUY (TYPE AS INDICATED) | |
| MATERIAL TO BE INSTALLED | IN. |
| MATERIAL TO BE REMOVED | RM. |
| MAKE WOOD POLE SELF-SUPPORTING IN CONCRETE | MSS |
| CABLE POLE | C.P. |

GENERAL

| | |
|--|--|
| PROPERTY LINE (ROW) | |
| PAVEMENT JOINTLINE & CURB FACE | |
| PROPOSED PAVEMENT | |
| SEWER LINE, MANHOLE & CATCH BASIN | |
| DET. ED. CO. U.G. LINE & MANHOLE | |
| TELEPHONE U.G. LINE & MANHOLE | |
| WATERMAIN & GATEWELL (OTHER UTILITIES SIMILAR) | |
| GAS STRUCTURE AND U.G. LINE | |

DIAGRAMS

(U.G.-FED ST. LTG. STD. SYMBOLS SAME AS UNDERGROUND LEGEND OF THIS SHEET).





GENERAL INFORMATION SHEET

1. CALL MISS DIG (800-482-7171) OR 811 3 WORKING DAYS PRIOR TO ANY EXCAVATION FOR THE LOCATIONS OF UNDERGROUND UTILITIES.
2. WHERE ABANDONING OF U.G. CABLES IS CALLED FOR ON PLANS OR DIAGRAMS, CONTRACTOR SHALL CUT & REMOVE CABLES WITHIN MANHOLES & HANDHOLES.
3. WHERE INSTALLATION OF NEW MANHOLES OVER EXISTING CONDUITS (TO ACCOMMODATE NEW & EXISTING CONDUITS) IS CALLED FOR ON PLANS, CONTRACTOR SHALL CAREFULLY & SO AS NOT TO DAMAGE EXIST. CABLES, REMOVE THE EXISTING CONDUITS & ENCASEMENT WITHIN MANHOLES. EXIST. CABLES SHALL BE EXTENDED & PROPERLY TRAINED, RACKED & SUPPORTED.
4. ALL EXISTING STREET LIGHTING, TRAFFIC SIGNAL, PRIMARY, TRANSMISSION ETC. CIRCUITS SHALL ALWAYS BE MAINTAINED IN AN OPERATIONAL CONDITION (EXCEPT WHERE OTHERWISE NOTED).
5. ALL CONDUITS NOT TERMINATING IN STRUCTURES SUCH AS MANHOLES, HANDHOLES OR FOUNDATIONS SHALL EXTEND 2 FEET BEYOND PAVEMENT LIMIT (EXCEPT AS OTHERWISE INDICATED). ALL UNOCCUPIED CONDUITS SHALL BE PLUGGED.
6. ALL TREE TRIMMING REQUIRED TO CLEAR NEW OR SALVAGED ST. LTG. & TRAFFIC SIGNAL STD.'S, O.H. ST. LTG. & TRAFFIC SIGNAL UNITS SHALL BE INCLUDED IN OTHER CONTRACT PAY ITEMS AND NOT PAID FOR SEPARATELY.
7. EXISTING O.H. & T.S. FACILITIES ARE NOT NECESSARILY SHOWN ON PLANS.
8. ALL OVERHEAD WIRES & UNDERGROUND CABLES SHALL CONSIST OF COPPER CONDUCTORS AS PER SPECIFICATIONS.
9. NEW CONDUITS BROKEN INTO EXISTING MANHOLES OR HANDHOLES SHALL NOT INTERFERE WITH RACKING AND/OR TRAINING OF CABLES.
10. ALL NEW ANCHOR GUYS SHALL BE INSTALLED ON A 1:1 RATIO OR AS NEARLY AS POSSIBLE (EXCEPT WHERE OTHERWISE NOTED). (STRUT GUYS ARE ACCEPTED).
11. ALL CABLES SHALL BE TAGGED IN ALL MANHOLES AND HANDHOLES.
12. INSTALL WOOD POLES SO AS NOT TO INTERFERE WITH TRAFFIC OR FUTURE CONSTRUCTION STAGES.
13. ALL SALVAGED WOOD POLES SHALL BE PREVIOUSLY INSTALLED NEW ON THIS CONTRACT. (EXCEPT AS OTHERWISE INDICATED)
14. ALL TRAFFIC SIGNS SUCH AS "NO PARKING", "NO STANDING", "STREET NAME", ETC. SHALL BE TRANSFERRED FROM OLD STD. OR POLE TO NEW STD. OR POLE AT THE SAME LOCATION OR IN CLOSE PROXIMITY BY CONTRACTOR.
15. ALL TRAFFIC SIGNALS SHALL BE MOUNTED WITH NEW STANDARD TRAFFIC SIGNAL BRACKETS & FITTINGS.
16. ALL TRAFFIC SIGNAL ITEMS, AS CALLED FOR ON PLANS, SHALL HAVE INCLUDED IN THE THE TRAFFIC SIGNAL ITEM ALL CABLES FROM THE CONTROLLER TO THE TRAFFIC SIGNALS, FOUNDATIONS & PIPE EXTENSIONS NEEDED TO MAINTAIN 17'-0" UNDER CLEARANCE AS INDICATED.
17. WHEN ENTERING PROPOSED CONDUIT INTO EXISTING MANHOLES & HANDHOLES EXERCISE CAUTION NOT TO DISTURB EXISTING CABLES.
18. ALL SALVAGED TRAFFIC SIGNALS SHALL BE TRAFFIC SIGNALS PREVIOUSLY INSTALLED NEW ON THIS CONTRACT. (EXCEPT AS OTHERWISE INDICATED).
19. FOR TRAFFIC SIGNAL SPAN WIRE USE EXTRA HIGH STRENGTH GRADE AS PER SPECIFICATIONS.
20. CROSSARMS SHALL BE REMOVED AFTER ALL CONTACTS ARE REMOVED. (INCLUDED IN REMOVAL OF OVERHEAD LINES).
21. SEAL-END OF CABLE WHERE COILING OF CABLE IS CALLED FOR ON PLANS. (CONTRACTOR SHALL RECEIVE PAYMENT FOR COILED-UP CABLES).
22. THE CONTRACTOR SHALL DELIVER TO R.C.O.C. THE T.S. CONTROLLER FOR TIMING. R.C.O.C. WILL DELIVER T.S. CONTROLLER AND CABINET TO THE CONTRACTOR WHEN READY FOR INSTALLATION.
23. PROPOSED T.S. SHALL BE PUT INTO OPERATION AT TIME OF REMOVAL OF EXISTING T.S. FACILITIES, CONTRACTOR SHALL NOTIFY R.C.O.C. IF UNABLE TO MAINTAIN T.S. IN AN OPERABLE CONDITION AT ALL TIMES.

24. A MINIMUM CLEARANCE OF 3'-6" HORIZONTAL & 1'-0" VERTICAL MUST BE MAINTAINED BETWEEN PROPOSED FACILITIES & EXISTING U.G. WATER FACILITIES.
25. ALL EQUIPMENT INSTALLED ON EXISTING UTILITY WOOD POLES SHALL MAINTAIN 4 FEET OF CLEARANCE FROM PRIMARY OR ABOVE POWER CABLES. ALL OTHER EQUIPMENT INSTALLED SHALL MAINTAIN 7 FEET OF CLEARANCE FROM PRIMARY OR ABOVE POWER CABLES26. LOCAL UTILITY CO. SERVICE INSTALLATION FEES, METERED SERVICE CHARGES AND OTHER CHARGES AS DETAILED ON THE PLANS (FOR LENGTH OF CONTRACT) ARE TO BE ORDERED & PAID BY THE CONTRACTOR. (INCLUDED IN THE INSTALLATION OF T.S. ON THIS CONTRACT).
27. CONTACT ROAD COMMISSION FOR OAKLAND COUNTY-TRAFFIC OPERATIONS CENTER AT (248) 858-7250, (48) HOURS PRIOR TO INSTALLATION AND INSPECTION OF TRAFFIC SIGNALS. ALL MATERIAL REMOVED ON THIS CONTRACT SHALL BE DISPOSED OF PROPERLY BY THE
28. CONTRACTOR. CONTRACTOR SHALL NOTIFY RCOC PRIOR TO REMOVAL OF THE EQUIPMENT AND ALL MATERIAL IDENTIFIED BY THE RCOC SHALL BE STORED ON SITE AS DIRECTED BY THE ENGINEER FOR PICK UP BY THE RCOC.
29. BAGGING OF TEMP. OR FINAL T.S. REQUIRED BY THE ENGINEER SHALL BE INCLUDED IN THE INSTALLATION OF T.S. ON THIS CONTRACT.
30. ALL O.H. TRAFFIC SIGNAL CABLE SHALL BE SUPPORTED BY 5/16" E.H.S. MESSENGER WIRE. (INCLUDED IN THE INSTALLATION OF T.S. ON THIS CONTRACT.)
31. FOR TYPICAL PEDESTRIAN T.S. WIRING ON POLES; (R.C.O.C. STEEL POLES, WOOD POLES OR STEEL POLES OWNED BY OTHERS) SEE STANDARD DETAIL SHEET OC-4A. ALL STEEL POLES SHALL BE ASSUMED TO BE OWNED BY R.C.O.C. UNLESS OTHERWISE NOTED ON PLANS.
32. ALL TRAFFIC SIGNAL SPANS WITH SOLID STATE CONTROLLERS SHALL BE GROUNDED. THE GROUNDING OF BOTH SHALL HAVE A RESISTANCE NO GREATER THAN 10 OHM WHEN INSTALLED.
33. CONCRETE PAVEMENT REPAIR SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST M.D.O.T. STANDARD SPECIFICATIONS FOR CONSTRUCTION.
34. ALL CONDUIT BENDS SHALL HAVE MINIMUM RADII IN ACCORDANCE WITH THE CURRENT N.E.C.
35. ALL TRAFFIC SIGNAL FITTINGS (SCREWS, BOLTS, PINNACLES, ETC.) SHALL BE GREASED WITH A NON-OXIDE TYPE GREASE.
36. INSTALL STEEL POLE HANDHOLE, AS DESCRIBED ON STANDARD DETAIL SHEET OC-2, IN ALL EXIST. STEEL POLES AS DIRECTED BY THE ENGINEER. (INCLUDED IN THE INSTALLATION OF T.S. ON THIS CONTRACT.)
37. ALL GROUND WIRE SHALL BE #6 STRANDED COPPER.
38. WHEN SPLICING TRAFFIC SIGNAL CABLES, USE UN-INSULATED SOLID BARREL COMPRESSION TYPE CONNECTORS. TAPE OVER EACH INDIVIDUAL BARREL AND ANY BARE WIRE WITH PREMIUM GRADE PVC, 7 MIL, SUNLIGHT & COLD RESISTANT TAPE. THEN TAPE OVERALL SPLICE WITH LINERLESS RUBBER SPLICING TAPE OR EQUIVALENT. THEN TAPE OVER THAT WITH A LAYER OF PREMIUM GRADE PVC, 7 MIL, SUNLIGHT & COLD RESISTANT TAPE OVER LAPPING CABLE JACKET BY ONE INCH. ALL TAPE SHOULD COVER SPLICES FROM CABLE JACKET TO CABLE JACKET AND BE 1/2 LAPPED. THE FINAL LAYER OF TAPE SHOULD BE WRAPPED IN AN UPWARD MOTION SO THAT CUT OFF END DOES NOT ALLOW MOISTURE BACK INTO SPLICE.
39. NO CHANGES FROM PLANS IN LOCATION OF SUPPORTING STRUCTURES, SIGNAL HEAD PLACEMENT OR TRAFFIC SIGNAL EQUIPMENT WILL BE ALLOWED WITHOUT PRIOR APPROVAL OF THE ROAD COMMISSION FOR OAKLAND COUNTY. CONTACT ROAD COMMISSION FOR OAKLAND COUNTY-TRAFFIC OPERATIONS CENTER AT (248)-858-7250.
40. STEMMING OF SIGNAL HEADS TO MAINTAIN EQUAL UNDER CLEARANCE FOR EACH SPAN WIRE MOUNTED SIGNAL HEAD (AT ALL INTERSECTIONS ON THIS CONTRACT) IS INCLUDED IN THE INSTALLATION OF T.S. IN THIS CONTRACT.
41. ALL JACKED-BORED, OPEN CUT OR DIRECT BURIAL CONDUIT CALLED FOR ON PLANS IS THE PREFERRED METHOD OF INSTALLATION. IF THE METHOD OF CONDUIT INSTALLATION IS IMPOSSIBLE TO CONSTRUCT OR IF THE CONTRACTOR PREFERS TO USE ANY OTHER METHOD, THE CHANGE OF METHOD MAY BE MADE UPON APPROVAL BY THE PROJECT ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING OR ANTICIPATING HIS NEED OR

42. DESIRE TO INSTALL CONDUIT BY ANY OTHER METHOD AND TO INCLUDE THE COST IN HIS CONTRACT BID.
43. NO EXTRA PAYMENT WILL BE ALLOWED IF THE CONTRACTOR CHOOSES TO CHANGE THE METHOD OF CONDUIT INSTALLATION.44. THE CONTRACTOR SHALL MAKE THE PERMANENT CONNECTION TO LOCAL UTILITY CO. 120V. SERVICE USING APPROVED PARALLEL GROOVED CONNECTORS. (INCLUDED IN THE INSTALLATION OF T.S. ON THIS CONTRACT.)
45. ALL OVERHEAD CAMERA CLAMP-ON BRACKET ARMS SHALL BE INSTALLED ON WOOD OR STEEL POLES PERPENDICULAR TO THE CURB UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
46. CONTACT LOCAL UTILITY CO. PRIOR TO INSTALLATION OF TRAFFIC SIGNALS. (INCLUDED IN THE INSTALLATION OF TRAFFIC SIGNALS ON THIS CONTRACT.)
47. CABLE TO BE USED FOR PHONE SERVICE SHALL BE, 1-6 TWISTED PAIR #19 GEL FILLED CABLE. (INCLUDED IN THE INSTALLATION OF T.S. ON THIS CONTRACT.) EXIST. OPTI-COM EQUIPMENT SHALL BE RELOCATED BY CONTRACTOR AS DIRECTED
48. BY THE ENGINEER. RELOCATION, CABLES & EQUIPMENT REQUIRED SHALL BE INCLUDED IN THE INSTALLATION OF T.S. ON THIS CONTRACT.
49. ALL WEATHERHEADS AND LB'S INSTALLED NEW ON THIS CONTRACT SHALL BE METAL UNLESS OTHERWISE SPECIFIED BY THE ENGINEER. THE "PLOWING IN CONDUIT" METHOD SHALL NOT BE USED ON THIS CONTRACT
50. UNLESS OTHERWISE SPECIFIED BY THE ENGINEER.
51. WHEN CONTRACTOR IS INSTALLING A NEW STEEL STRAIN POLE FOR INSTALLATION OF A NEW SPAN WIRE BY LOCAL UTILITY CO., A SPAN WIRE ATTACHMENT CLAMP AND BULL RING SHALL BE PROVIDED BY THE CONTRACTOR. (INCLUDED IN THE INSTALLATION OF T.S. ON THIS CONTRACT.)
52. ALL PEDESTRIAN TRAFFIC SIGNALS NOT IN USE ON THIS PROJECT SHALL BE BAGGED AS DIRECTED BY THE ENGINEER. (INCLUDED IN THE INSTALLATION OF TRAFFIC SIGNALS ON THIS CONTRACT.)
53. ALL TRAFFIC SIGNALS, CASE SIGNS, AND SPAN MOUNTED STATIC SIGNS THAT ARE NOT BEING USED WILL BE HOODED, TURNED, OR TAKEN DOWN TO CLEARLY INDICATE THAT THEY ARE NOT IN OPERATION. BAGGING MATERIAL WILL BE OF SUCH CONSTRUCTION AS TO NOT ALLOW ANYTHING TO BE VISIBLE THROUGH THE MATERIAL. BAGGING MATERIAL WILL BE OF SUCH CONSTRUCTION AS TO HOLD UP TO WIND AND OTHER ADVERSE WEATHER CONDITIONS. ALL TRAFFIC SIGNALS AND CASE SIGNS WILL BE DISABLED SO THAT NO LIGHTS ARE OPERATIONAL.
54. ALL MAST ARM MOUNTED TRAFFIC SIGNALS SHALL BE MOUNTED SUCH THAT A 17'-0" UNDER CLEARANCE IS MAINTAINED AT ALL TIMES. THE CONTRACTOR IS REQUIRED TO PROVIDE AN INDEPENDENT CERTIFICATION 55. ON BOLTS USED IN ANCHOR BASE STEEL STRAIN POLE FOUNDATIONS. THE CERTIFICATION MUST COME FROM AN R.C.O.C. APPROVED TESTING FACILITY AND SHOW THAT THE BOLT MEETS R.C.O.C. SPECIFICATIONS. PRIOR TO TESTING, AN R.C.O.C. REPRESENTATIVE MUST INSPECT THE BOLT PILE AT THE CONTRACTOR'S YARD. ANCHOR BOLTS SHALL NOT BE HEATED NOR HAMMERED AFTER ACCEPTANCE FOR USE ON THIS PROJECT. CONTACT R.C.O.C. (248-858-7250).
56. CUT OVER OF INTERSECTIONS WILL TAKE PLACE ON MONDAY - THURSDAY FROM 9 A.M. - 3 P.M. ONLY.

RCOC 2010 TRAFFIC SIGNAL DETAIL BOOK IS AVAILABLE AT RCOC WEB SITE AT [HTTP://WWW.RCOCWEB.ORG/ABOUTUS/PUBLICATIONS.ASPX](http://www.rcocweb.org/aboutus/publications.aspx). THIS INFORMATION IS ALSO AVAILABLE UPON REQUEST DIRECTLY FROM RCOC TRAFFIC SAFETY DEPARTMENT BY CONTACTING AHMAD JAWAD, SIGNALS SYSTEM ENGINEER AT (248)-858-7250 OR AT AJAWAD@RCOC.ORG



| |
|----------------------|
| PROJECT NO. CO 55 |
| DATE 8-10-2016 |

| |
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| GENERAL INFORMATION SHEET |
| 14 MILE ROAD AND SOUTHFIELD ROAD INTERSECTION |

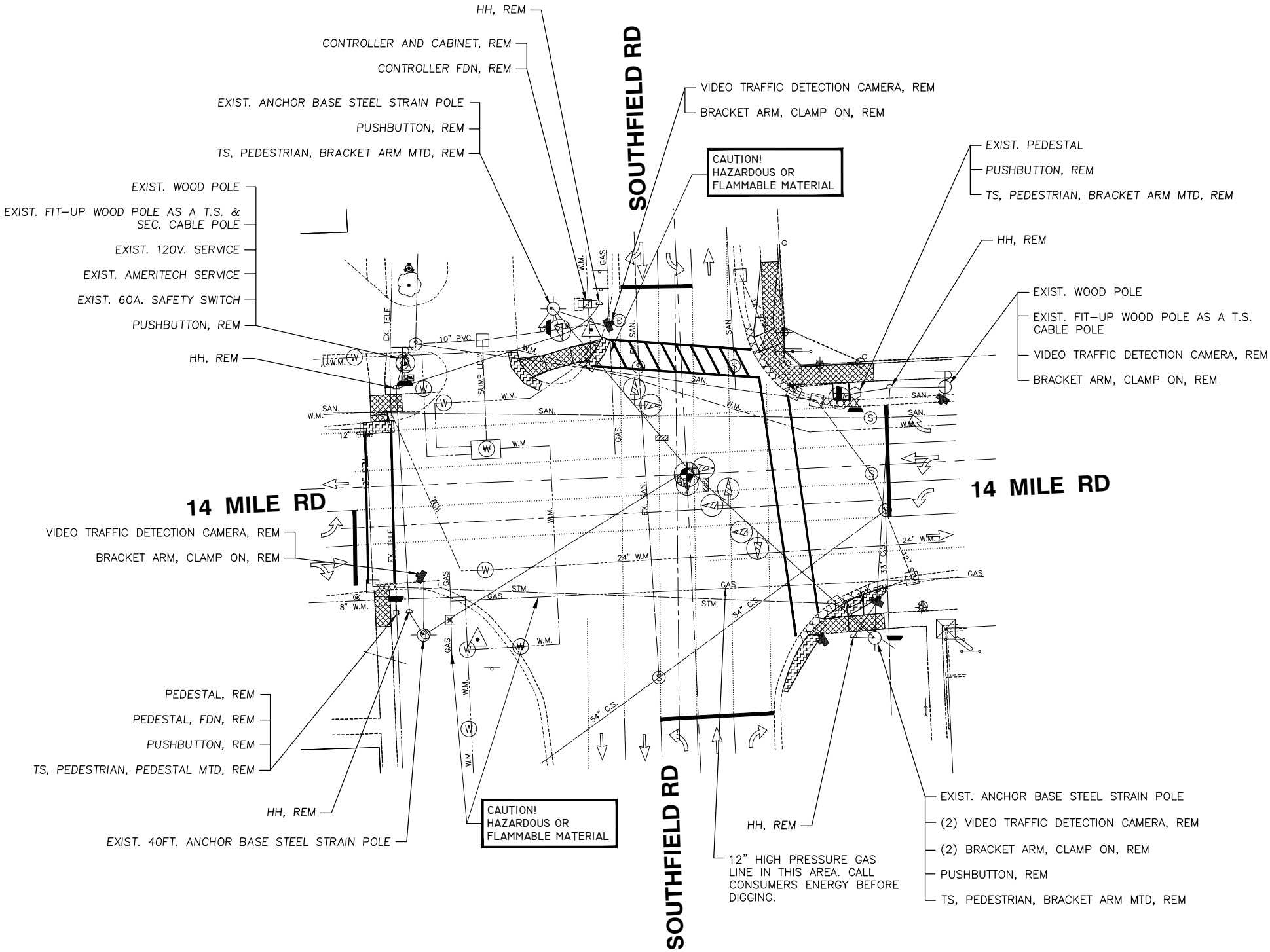
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|------------------------------|
| DESIGN PHASE DESIGN PHASE |
| SHEET NO. 3 OF 6 |



Know what's below.
Call before you dig.



FULL SIZE (22"x34") 1" = 20'
REDUCED SIZE (11"x17") 1" = 40'



| LIST OF MATERIALS | | |
|-------------------|--------------------------------------|------------|
| NO. | ITEM | QUANTITIES |
| | CONTROLLER AND CABINET, REM | 1 Ea |
| | TS, SPAN WIRE MTD, REM | 4 EA |
| | TS, BRACKET ARM MTD, REM | 4 EA |
| | SPAN WIRE, REM | 1 EA |
| | SERV DISCONNECT, REM | 1 EA |
| | TS, PEDESTRIAN, BRACKET ARM MTD, REM | 4 EA |
| | TS, PEDESTRIAN, PEDESTAL MTD, REM | 1 EA |
| | PEDESTAL, REM | 1 EA |
| | PEDESTAL, FDN, REM | 1 EA |
| | CASE SIGN, REM | 1 EA |
| | CONTROLLER FDN, REM | 1 EA |
| | VIDEO TRAFFIC DETECTION CAMERA, REM | 5 EA |
| | BRACKET ARM, CLAMP ON, REM | 5 EA |

SEE "ADA SIDEWALK DETAILS" SHEET FOR SIDEWALK, PAVT, & CURB
REMOVAL AND REPLACEMENT QUANTITIES

TS REMOVAL PLAN

SCALE: 1" = 40' (11"x17" PAPER)
SCALE: 1" = 20' (22"x34" PAPER)

ALL TRAFFIC CABLE SHALL
BE REMOVED ON THIS PLAN

| APPROACH SPEEDS: | |
|------------------|--------|
| N. BD. | 45 MPH |
| S. BD. | 35 MPH |
| E. BD. | 25 MPH |
| W. BD. | 35 MPH |



| | |
|-------------|-----------|
| PROJECT NO. | CO 55 |
| DATE | 8-10-2016 |

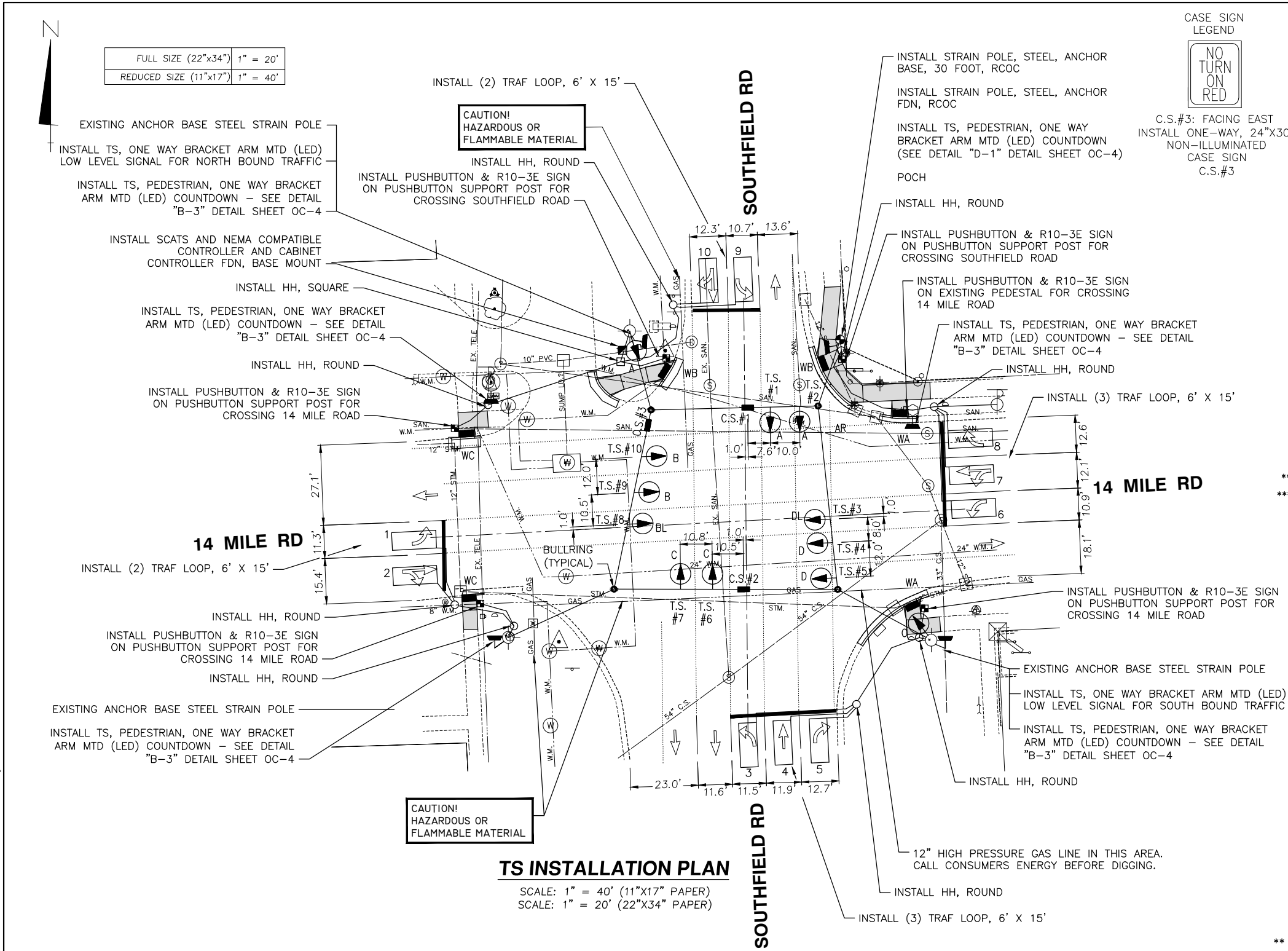
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| TS REMOVAL PLAN |
| 14 MILE ROAD AND SOUTHFIELD ROAD INTERSECTION |

| |
|--------------|
| DESIGN PHASE |
| DESIGN PHASE |
| SHEET NO. |
| 4 OF 6 |

x:\INTERSECTIONS\55\DRAWINGS\RECORD\CO 55 14 MILE AND SOUTHFIELD - PLAN SHEET Aug. 10, 16 - 9:18 AM

PROJECT NO. CO 55 PROJECT NAME: 14 MILE ROAD AND SOUTHFIELD ROAD INTERSECTION CONTROL SECTION ### MDOT JOB NO. ###

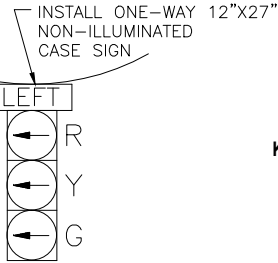
ENGINEER: AHMAD JAWAD



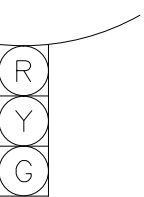
C.S.#3: FACING EAST
INSTALL ONE-WAY, 24"x30"
NON-ILLUMINATED
CASE SIGN
C.S.#3



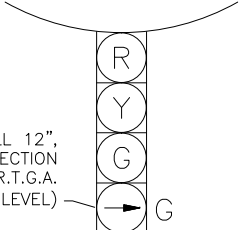
C.S.#1: FACING SOUTH
C.S.#2: FACING NORTH
INSTALL ONE-WAY, 24"x30"
NON-ILLUMINATED
CASE SIGN
C.S.#1 & C.S.#2



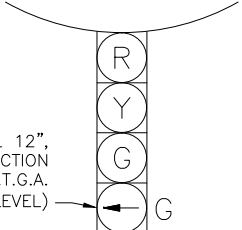
FACING EAST: T.S.#8,
FACING WEST: T.S.#3



FACING SOUTH: T.S.#1
FACING WEST: T.S.#4,
FACING NORTH: T.S.#6, T.S.#7
FACING EAST: T.S.#10



FACING SOUTH: T.S.#2



FACING EAST: T.S.#9

| LIST OF MATERIALS | | |
|-------------------|---|------------|
| NO. | ITEM | QUANTITIES |
| | SPAN WIRE, BOX | 1 EA |
| ** | TETHER WIRE, BOX | 1 EA |
| *** | TS, ONE WAY SPAN WIRE MTD (LED) | 9 EA |
| | TS, ONE WAY BRACKET ARM MTD (LED) | 2 EA |
| | TS, 4TH LEVEL, LTGA (LED) | 2 EA |
| | TS, 4TH LEVEL, RTGA (LED) | 1 EA |
| | CASE SIGN, ONE WAY, 12 INCH BY 27 INCH, NON-ILLUMINATED, RCOC | 2 EA |
| | CASE SIGN, ONE WAY, 24 INCH BY 30 INCH, NON-ILLUMINATED, RCOC | 3 EA |
| | TS, PEDESTRIAN, ONE WAY BRACKET ARM MTD (LED) COUNTDOWN | 2 EA |
| | TS, PEDESTRIAN, TWO WAY BRACKET ARM MTD (LED) COUNTDOWN | 2 EA |
| | PUSHBUTTON AND SIGN | 6 EA |
| | PUSHBUTTON SUPPORT POST, RCOC | 5 EA |
| | STRAIN POLE, STEEL, ANCHOR BASE, 30 FOOT | 1 EA |
| | STRAIN POLE, STEEL ANCHOR FDN, RCOC | 1 EA |
| | CONTROLLER AND CABINET, DIGITAL TYPE, RCOC | 1 EA |
| | CONTROLLER AND CABINET, DIGITAL TYPE, DELIVERED, RCOC | 1 EA |
| | TRAF LOOP, PRESENCE | 10 EA |
| | DIGITAL LOOP DETECTOR | 3 EA |
| | CONTROLLER FDN, BASE MOUNT | 1 EA |
| | CONDUIT, DB, 1, 1 1/4 INCH | FT |
| | CONDUIT, DB, 1, 3 INCH | FT |
| | CONDUIT, DB, 2, 3 INCH | FT |
| | CONDUIT, DB, 3, 4 INCH | FT |
| | HH, ROUND | 8 EA |
| | HH, SQUARE, RCOC | 1 EA |
| | WOOD POLE, FIT UP, TS CABLE POLE | 1 EA |
| | WOOD POLE, FIT UP, TS AND SEC CABLE POLE | 1 EA |
| | SERV DISCONNECT | 1 EA |
| | CABLE, SEC, 600V, 1, 2/C#4, #6 GROUND | FT |

** THE QUANTITY SHOWN SHALL INCLUDE ALL TETHER WIRES (MATCHING THE SPAN WIRE CONFIGURATION) AND RELATED HARDWARE NEEDED TO TETHER ALL SPAN WIRE MOUNTED SIGNALS AT THIS LOCATION.

*** SHALL BE EQUIPPED WITH BACK PLATES WITH RETRO-REFLECTIVE BORDER (INCLUDED IN THE INSTALLATION OF T.S. ON THIS CONTRACT)

NOTE:
SEE "ADA SIDEWALK DETAILS" SHEET FOR SIDEWALK, PAVT, AND CURB CONSTRUCTION, QUANTITIES AND GRADES.

ALL SPAN WIRE POLE CONTACT HEIGHTS SHALL BE COORDINATED WITH THE FIELD ENGINEER SO THAT A MINIMUM 17FT. UNDERCLEARANCE IS MAINTAINED. (INCLUDED IN THE INSTALLATION OF SPAN WIRE, BOX ON THIS CONTRACT.)

CONDUIT TYPICALS:
STEEL POLE TO H.H. 2-3" & 1-1 1/4"
WOOD POLE TO H.H. 1-3"
PEDESTAL TO H.H. 1-3" & 1-1 1/4"
CONTROLLER TO H.H. AS INDICATED
SUPPORT POST TO H.H. 1-1 1/4"

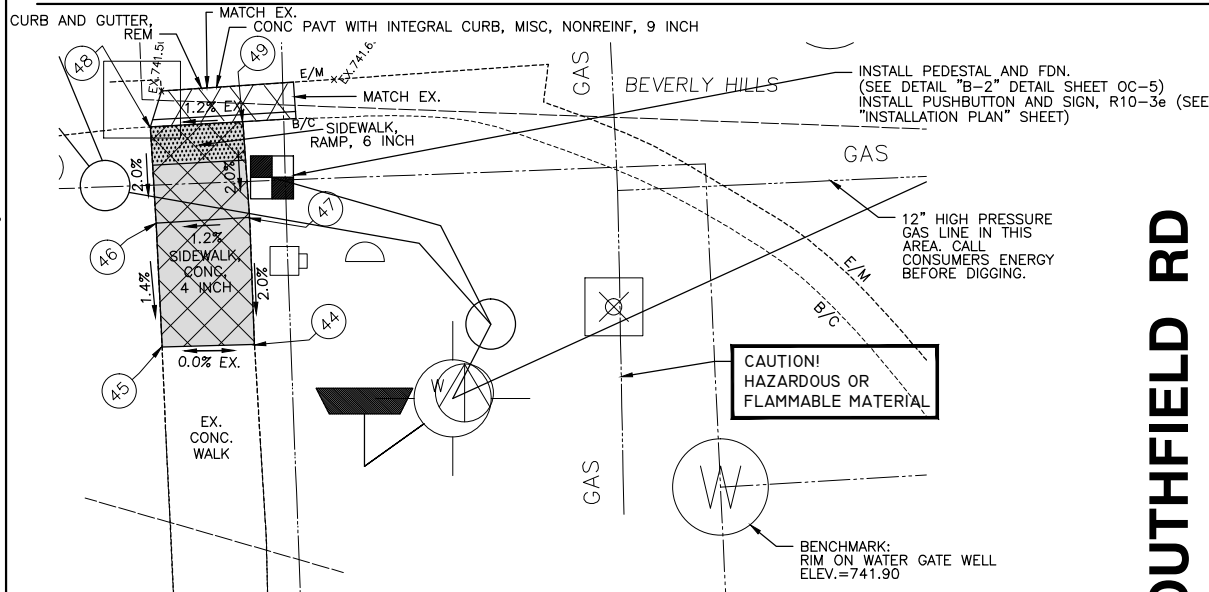
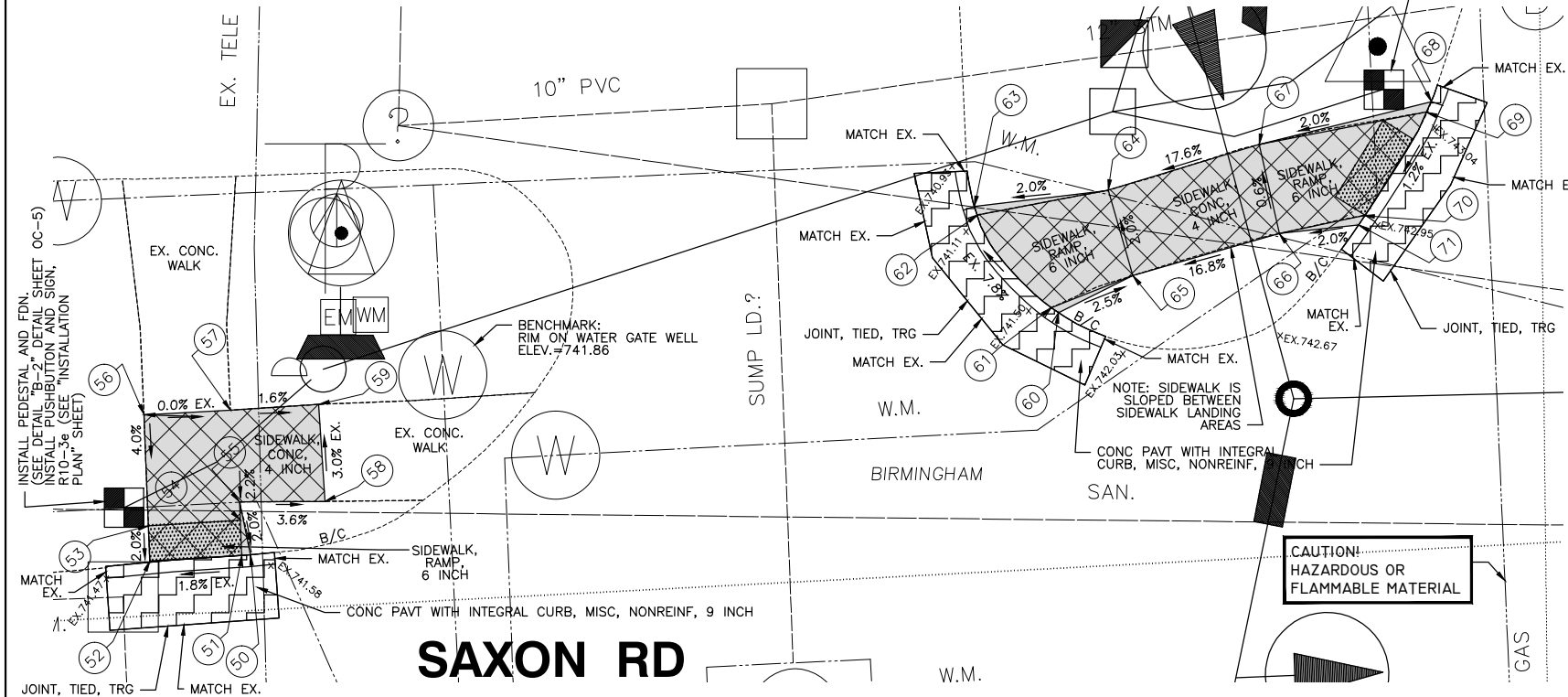
APPROACH SPEEDS:
N. BD. 45 MPH
S. BD. 35 MPH
E. BD. 25 MPH
W. BD. 35 MPH

SCATS COMMUNICATIONS SHALL BE VIA AT&T CELLULAR MODEM. INSTALLATION SHALL BE BY THE RCOC FIELD ENGINEER

NOTE:
1. ALL PEDESTRIAN SIGNALS ON THIS PROJECT SHALL BE COUNTDOWN TYPE.
2. INSTALL 1-1 1/4" D.B. CONDUIT FROM NEW SUPPORT POST TO H.H.
3. EXACT LOCATIONS FOR SUPPORT POSTS SHALL BE DETERMINED BY THE ENGINEER.

| PROPOSED GRADES | | PROPOSED GRADES | | PROPOSED GRADES | | PROPOSED GRADES | | PROPOSED GRADES | | PROPOSED GRADES | |
|-----------------|-----------|-----------------|-----------|-----------------|-----------|-----------------|-----------|-----------------|-----------|-----------------|-----------|
| PT.# | ELEVATION | PT.# | ELEVATION | PT.# | ELEVATION | PT.# | ELEVATION | PT.# | ELEVATION | PT.# | ELEVATION |
| 1 | 743.65 M. | 10 | 743.40 | 19 | 743.02 | 28 | 742.88 | 37 | 742.74 | 46 | 742.60 |
| 2 | 743.75 M. | 11 | 743.18 | 20 | 743.54 | 29 | 742.78 | 38 | 741.58 | 47 | 741.41 |
| 3 | 743.22 | 12 | 743.22 | 21 | 743.10 | 30 | 742.84 | 39 | 741.49 | 48 | 741.57 |
| 4 | 743.24 | 13 | 743.69 M. | 22 | 742.68 | 44 | 741.27 M. | 50 | 742.11 | 49 | 741.57 |
| 5 | 743.62 | 14 | 743.49 M. | 23 | 742.72 | 45 | 741.27 M. | 51 | 741.58 | 58 | 741.82 M. |
| 6 | 743.12 | 15 | 743.12 | 24 | 743.10 | 46 | 741.41 | 52 | 741.49 | 67 | 742.84 |
| 7 | 743.10 | 16 | 743.08 | 25 | 742.82 | 47 | 741.47 | 53 | 741.55 | | |
| 8 | 743.43 | 17 | 743.48 | 26 | 743.03 M. | 48 | 741.51 | 54 | 741.64 | | |
| 9 | 743.30 | 18 | 742.98 | 27 | 743.06 M. | 49 | 741.57 | 55 | 741.64 | | |
| | | | | | | | | 56 | 741.68 M. | | |
| | | | | | | | | 57 | 741.75 M. | | |
| | | | | | | | | 60 | 741.81 | | |
| | | | | | | | | 61 | 741.50 | | |
| | | | | | | | | 62 | 741.11 | | |
| | | | | | | | | 63 | 741.46 | | |
| | | | | | | | | 64 | 741.26 | | |
| | | | | | | | | 65 | 741.36 | | |
| | | | | | | | | 66 | 742.87 | | |
| | | | | | | | | 71 | 743.32 | | |

M. = MATCH EXISTING GRADE
M. TC. = MATCH EXISTING TOP OF CURB GRADE



| LIST OF MATERIALS (THIS SHEET) | |
|--|------------|
| ITEM | QUANTITIES |
| SIDEWALK, REM | 82 SYD |
| CURB AND GUTTER, REM | 77 FT |
| PAVT, REM | 28 SYD |
| CONC PAVT WITH INTEGRAL CURB, MISC, NONREINF, 9 INCH | 28 SYD |
| JOINT, TIED, TRG | 40 FT |
| EXCAVATION, EARTH, RCOC | 82 SYD |
| SIDEWALK, CONC, 4 INCH | 414 SFT |
| SIDEWALK RAMP, CONC, 6 INCH | 350 SFT |
| SUBBASE, CIP | 6 CYD |
| AGGREGATE BASE, 6 INCH, CIP, 21AA, RCOC | 7 CYD |
| CURB AND GUTTER, CONC, DET C4 | 77 FT |
| SLOPE RESTORATION, RCOC | 200 SYD |

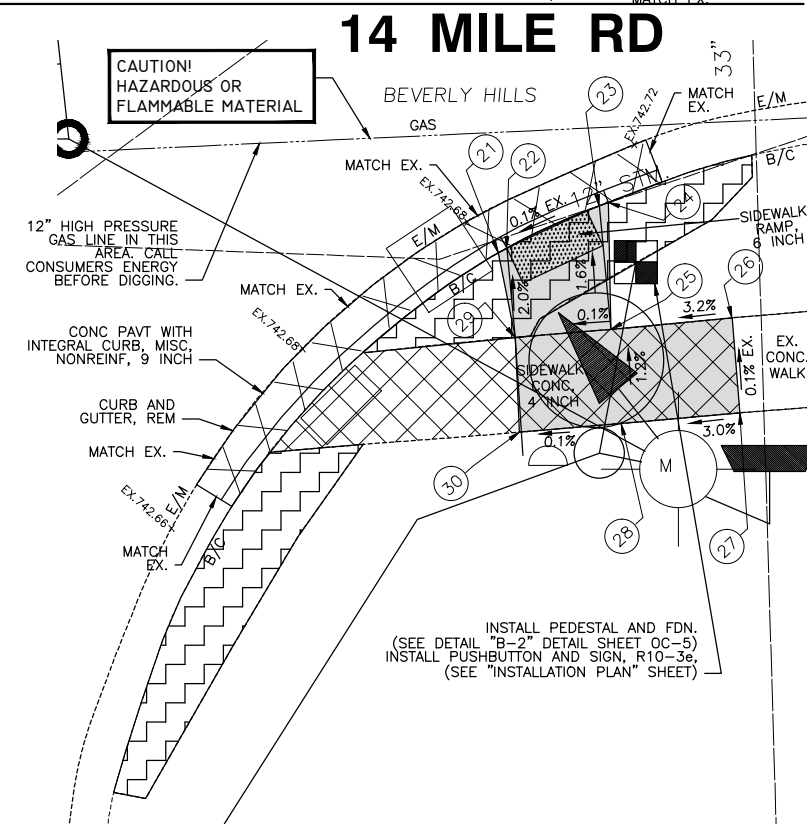
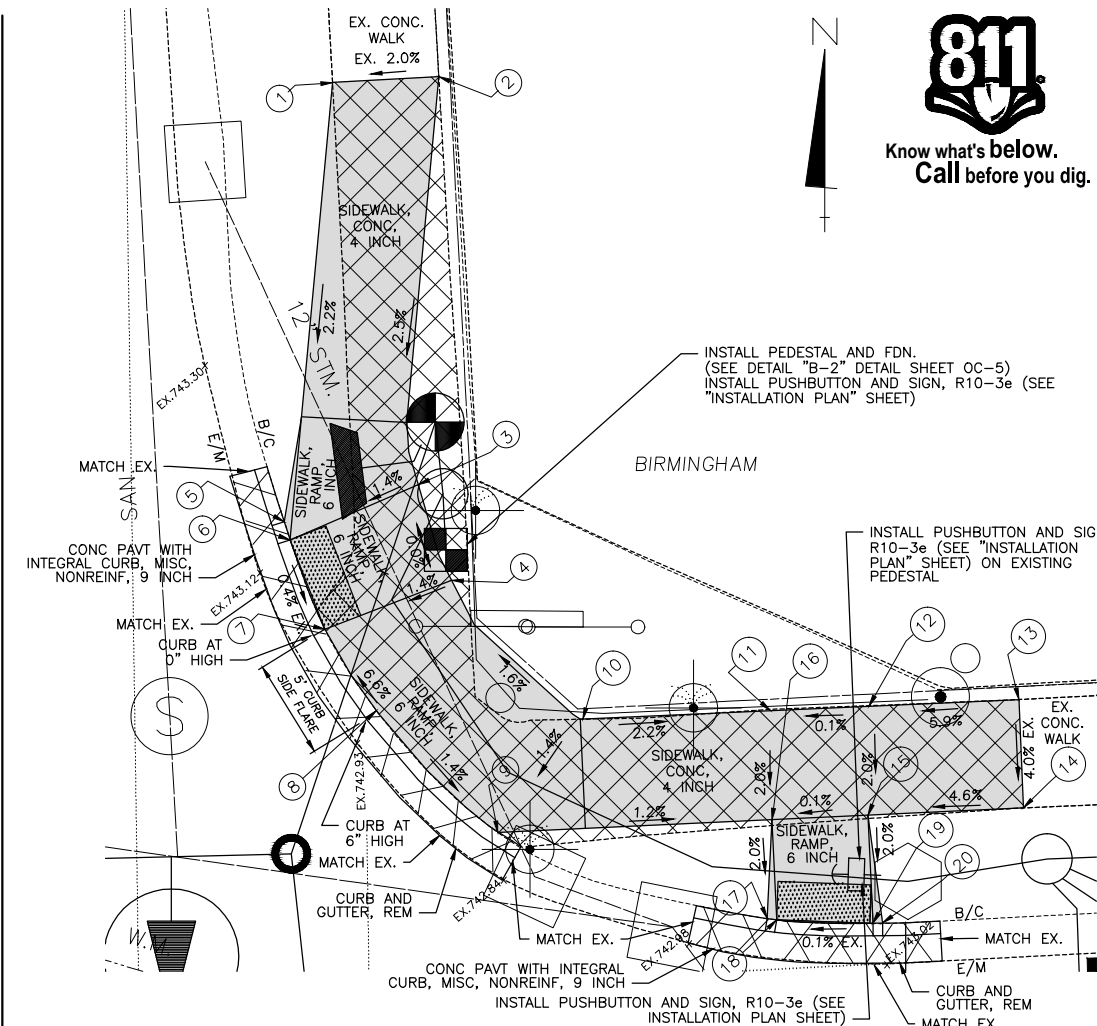
| | |
|--|--|
| | = SIDEWALK, REM (SYD) |
| | = PAVT, REM |
| | = SIDEWALK, CONC, 4 INCH -OR- SIDEWALK, RAMP, 6 INCH |
| | = CURB AND GUTTER, REM |

ADA SIDEWALK DETAILS (ALL 4 QUADRANTS)

SCALE: 1" = 10' (11"x17" PAPER)
SCALE: 1" = 5' (22"x34" PAPER)

NOTES:

- ALL SIDEWALK LANDINGS AND RAMPS WITHIN 5' BACK OF CURB TO BE 6 INCH THICKNESS PLACED ON AGGREGATE BASE, 6 INCH, CIP, 21AA RCOC. ALL OTHER SIDEWALK TO BE 4 INCHES THICK PLACED ON 4" CLASS II SAND (PAID AS SUBBASE, CIP).
- ALL EXCAVATED MATERIAL, UNLESS USED FOR BACKFILL ON SITE (AS APPROVED BY THE ENGINEER), SHALL BE DISPOSED OF OFF-SITE BY THE CONTRACTOR. ALL COSTS FOR REMOVAL AND DISPOSAL IS TO BE INCLUDED IN THE PAY ITEM EXCAVATION, EARTH, RCOC (SYD)
- ALL DISTURBED AREAS TO BE RESTORED WITH 3" TOPSOIL. SEEDING, FERTILIZER AND MULCH BLANKET PER SLOPE RESTORATION, RCOC. ANY DISTURBED AREAS MORE THAN 10' FROM THE PROPOSED WORK AND WHICH WERE NOT PREVIOUSLY APPROVED BY THE ENGINEER, WILL NOT BE PAID FOR SEPARATELY.
- THE BENCHMARKS IDENTIFIED ON THIS SHEET ARE TO BE USED FOR THIS INTERSECTION ONLY AND HAS NO RELATION TO BENCHMARK OR GRADES AT OTHER INTERSECTIONS.
- SIDEWALK TO BE REMOVED SHALL BE SAWCUT FULL DEPTH (COST TO BE INCLUDED IN THE REMOVAL ITEMS).
- REFER TO MDOT R-28 SERIES (CURRENT VERSION) FOR DETAILS ON SIDEWALK RAMPS AND LOCATION OF TRUNCATED DOMES.
- ALL SIDEWALK LANDINGS AND RAMPS WILL BE INCLUDED IN THE COST OF SIDEWALK RAMP, CONC, 6 INCH, AS DESCRIBED IN SEC 803.04 OF 2012 MDOT STANDARD SPECIFICATIONS.



ROAD COMMISSION
for OAKLAND COUNTY
BEVERLY HILLS, MICHIGAN
PHONE: 877-858-4804 WEB: WWW.RCOCWEB.ORG

PROJECT NO.
CO 55
DATE
8-10-2016

ADA SIDEWALK DETAILS
14 MILE ROAD AND SOUTHFIELD ROAD
INTERSECTION

DESIGN PHASE
DESIGN PHASE
SHEET NO.
6 OF 6

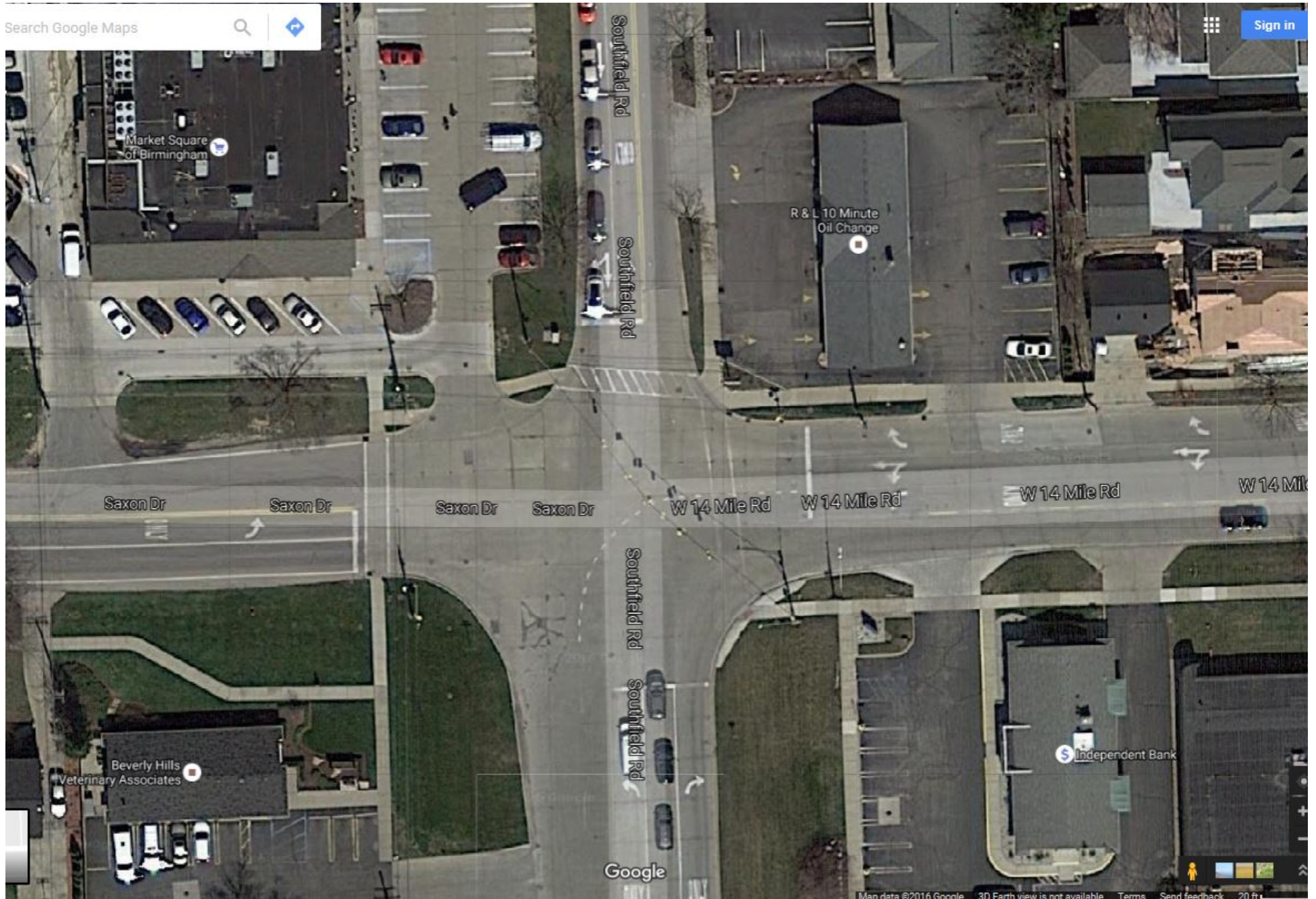
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PROJECT NO. CO 55
ENGINEER: AHMAD JAWAD
CONTROL SECTION
MDOT JOB NO. ###

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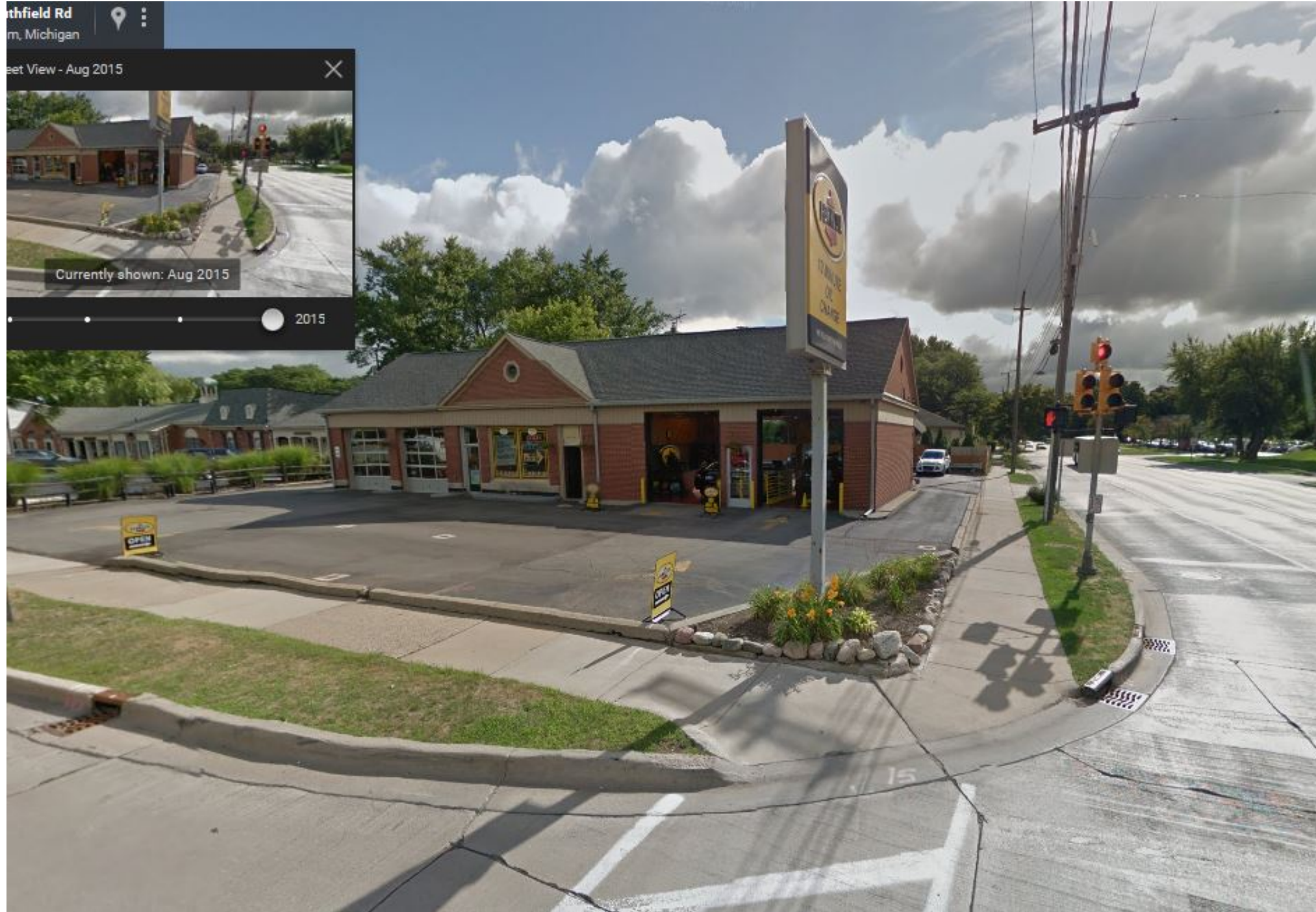
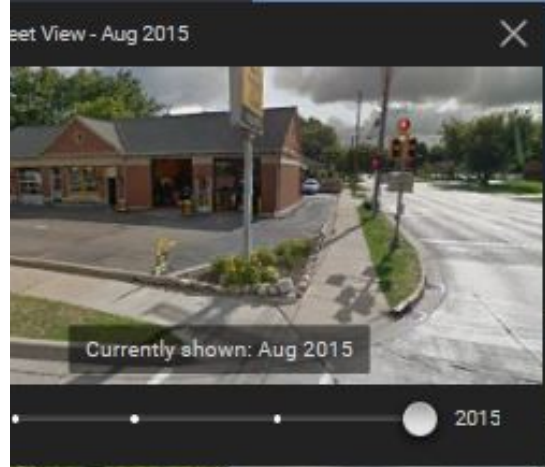
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Northfield Rd
Farmington, Michigan





Southfield Rd

Southfield, Michigan

Street View - Sep 2015



