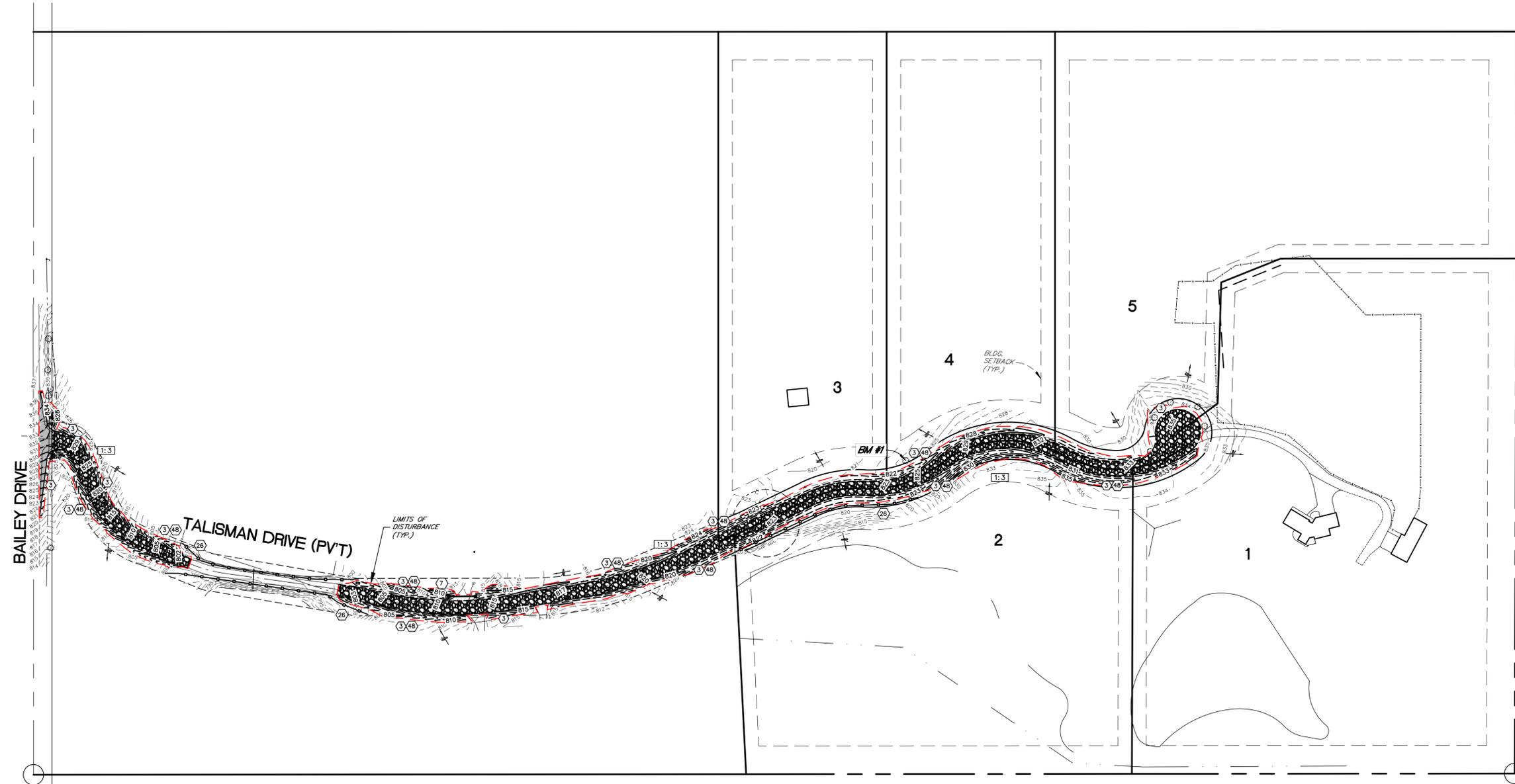
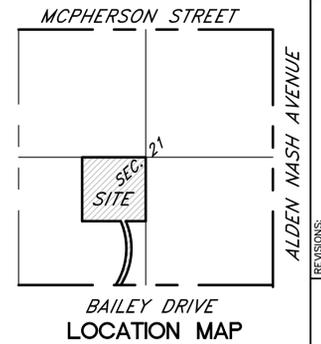


811 - CALL BEFORE YOU DIG

BENCHMARK #1 ELEV. = 825.76 TOP OF NAIL ON EAST SIDE OF 12" APPLE TREE LOCATED 30' WEST OF DRIVEWAY (N.A.V.D. 88 DATUM)

LEGAL DESCRIPTION FROM TAX RECORDS:
PART OF THE SOUTHWEST 1/4 COMMENCING 1220.38 FEET N0°1'05"W ALONG WEST LINE OF EAST 1/2 OF THE SOUTHWEST 1/4 FROM SOUTH SEC LINE THEN 90°E 904.74 FEET THEN N22°43'12"W 30.81 FEET THEN N87°8'17"E 424.99 FEET TO A POINT 1270.0 FEET NORTH ALONG THE NORTH-SOUTH 1/4 LINE FROM SOUTH 1/4 CORNER THEN N0°4'6"W TO CENTER OF SECTION THEN WEST TO NORTHWEST CORNER OF THE EAST 1/2 OF THE SOUTHWEST 1/4 THEN SOUTH TO THE BEGINNING, SECTION 21, T7N, R9W, VERGENNES TOWNSHIP, KENT CO., MI. (CONTAINING 42.41 ACRES)

SOIL EROSION & SEDIMENTATION CONTROL PLAN



REVISIONS:

NO.	DATE	DESCRIPTION

DRAWN BY: MDC
APPROVED BY: MDC
DATE: MAY 13, 2020

REVISIONS:

SEVICUS PEE NEEDS OF OUR CLIENTS SINCE 1987

Roosten & Associates
SURVEYING AND ENGINEERING

5055 PLAINFIELD AVE. NE TEL: (616) 361-7220
GRAND RAPIDS, MI 49525 FAX: (616) 361-1822

CLIENT:
LEE HOVEY
590 TALISMAN DRIVE
LOWELL, MI 49331

PROJECT NO.
200097

SHEET
C-101

STORM WATER MANAGEMENT SYSTEM MAINTENANCE

THE STORM SEWER AND DETENTION BASINS MUST BE INSPECTED AND MAINTAINED ON A REGULAR BASIS FOR OPTIMAL PERFORMANCE. SEE CHART BELOW FOR SUGGESTED INTERVALS.

TASKS	COMPONENTS	SCHEDULE
INSPECT FOR ACCUMULATION	DITCHES	● ANNUALLY
REMOVE SEDIMENT ACCUMULATION	DITCHES	● EVERY 5-10 YEARS AS NEEDED
INSPECT FOR DEBRIS (DEAD VEGETATION AND TRASH)	DITCHES	● EARLY SPRING, FALL AND AFTER MAJOR STORMS
CLEAN DEBRIS	DITCHES	● AS NEEDED
INSPECT FOR EROSION ON BANKS AND BOTTOM	DITCHES	● EARLY SPRING, FALL AND AFTER MAJOR STORMS
REESTABLISH PERMANENT VEGETATION ON ERODED SLOPES	DITCHES	● AS NEEDED
MOWING	DITCHES	● AS NEEDED (MIN. ONCE A YEAR)

CONSTRUCTION SEQUENCE	JULY	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	REMARKS
INSTALL SILT FENCING AND INLET PROTECTION													REQUIRED
CLEAR VEGETATION AND STRIP AND STOCKPILE TOPSOIL													
ROUGH GRADE SITE													
INSTALL PAVEMENT													
FINISH GRADE, TOPSOIL AND SEED, AND MULCH BLANKETS													
CLEAN PAVEMENTS													
REMOVE TEMPORARY EROSION CONTROL													

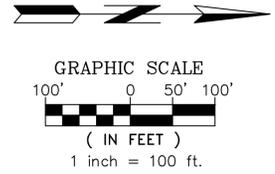
NOTE:
- REFER TO MDOT SOIL EROSION & SEDIMENTATION CONTROL MANUAL.
- CONTRACTOR SHALL PLACE MA-GREEN S-150 (OR APPROVED EQUAL) EROSION CONTROL BLANKET ON ALL SLOPES 1 ON 3 OR STEEPER AND ANY OTHER AREAS SUCH AS SWALES WHERE EROSION IS A CONCERN.
- CONTRACTOR SHALL CLEAN STREETS OF ANY DIRT TRACKED ONTO THEM BY THE CONSTRUCTION OPERATION.
- SITE SOILS CONSIST OF LOAMY SAND PER USDA NRCS MAPS.
- TOTAL DISTURBED AREA IS 2.8 ACRES.
- LEE CREEK CROSSES THE ROAD AND IS APPROXIMATELY 100 FEET FROM DISTURBED AREAS.
- CONTRACTOR SHALL SWEEP THE STREET ONCE PER WEEK OR AS DIRECTED BY COUNTY SECC AGENT.

SOIL EROSION CONTROL KEY

- ③ PERMANENT/TEMPORARY SEEDING
- ⑦ RIP-RAP
- ②6 GEOTEXTILE SILT FENCE
- ④8 EROSION CONTROL MULCH BLANKETS

LEGEND

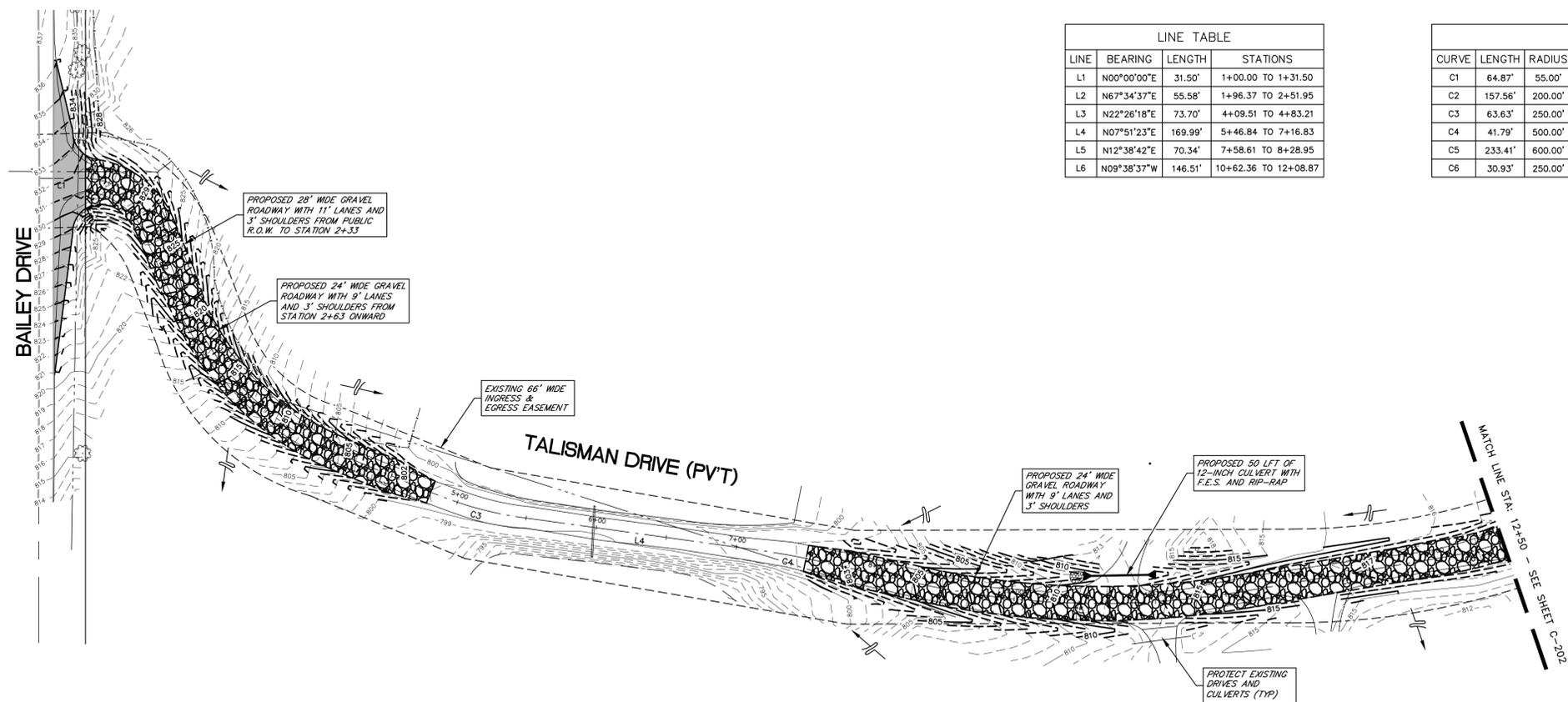
- 820--- EXISTING CONTOUR LINE
- - -820- - - PROPOSED CONTOUR LINE
- PROPOSED STORM CULVERT



- LEGEND
- IRON STAKE - SET
 - IRON FOUND
 - WOOD STAKE
 - P - RECORDED DIMENSION
 - D - DEED DIMENSION
 - P - PLATTED DIMENSION
 - M - MEASURED DIMENSION
 - CL - CENTER LINE
 - CC - CORNER ON CONCRETE
 - CB - CORNER ON BITUMINOUS
 - EC - EDGE OF CONCRETE
 - EG - EDGE OF GRAVEL
 - G - GROUND ELEVATION
 - GTR - FLOW LINE OF GUTTER
 - OH - OVERHEAD ELEC/UTILITY LINE
 - ⊙ - LIGHT POLE
 - EX. CONTOUR LINE
 - X--X-- FENCE LINE
 - CONC. - CONCRETE
 - BIT. - BITUMINOUS PAVEMENT
 - ENCR - PROPERTY LINE ENCROACHMENT
 - UTIL - UTILITY
 - ELEC. - ELECTRIC
 - RET. - RETAINING WALL
 - P/L - PROPERTY LINE
 - PAV. - PAVEMENT
 - W.S. - WATER SERVICE LATERAL
 - BM - BENCHMARK
 - W.V. - WATER VALVE
 - HYD. - FIRE HYDRANT
 - CB - CATCH BASIN
 - MH - MANHOLE

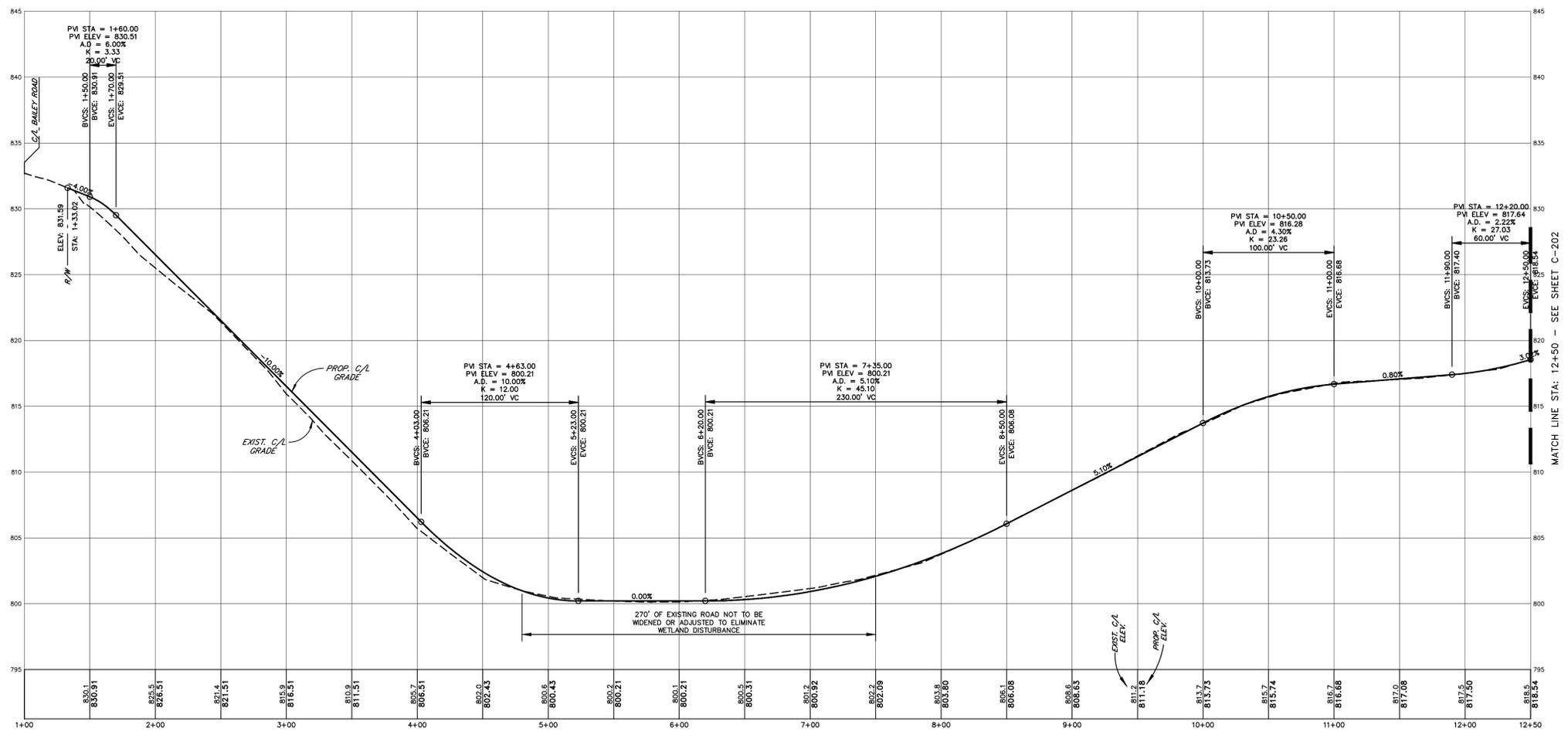
811 - CALL BEFORE YOU DIG

BENCHMARK #1 ELEV. = 825.76 TOP OF NAIL ON EAST SIDE OF 12" APPLE TREE LOCATED 30' WEST OF DRIVEWAY (N.A.V.D. 88 DATUM)

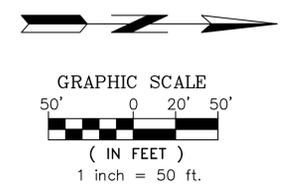


LINE TABLE			
LINE	BEARING	LENGTH	STATIONS
L1	N00°00'00"E	31.50'	1+00.00 TO 1+31.50
L2	N67°34'37"E	55.58'	1+96.37 TO 2+51.95
L3	N22°26'18"E	73.70'	4+09.51 TO 4+83.21
L4	N07°51'23"E	169.99'	5+46.84 TO 7+16.83
L5	N12°38'42"E	70.34'	7+58.61 TO 8+28.95
L6	N09°38'37"W	146.51'	10+62.36 TO 12+08.87

CURVE TABLE					
CURVE	LENGTH	RADIUS	LONG CHORD	DELTA	STATIONS
C1	64.87'	55.00'	N33°47'18"E 61.17'	67°34'37"	1+31.50 TO 1+96.37
C2	157.56'	200.00'	N45°00'27"E 153.52'	45°08'18"	2+51.95 TO 4+09.51
C3	63.63'	250.00'	N15°08'51"E 63.45'	14°34'55"	4+83.21 TO 5+46.84
C4	41.79'	500.00'	N10°15'03"E 41.78'	4°47'19"	7+16.83 TO 7+58.61
C5	233.41'	600.00'	N01°30'03"E 231.94'	22°17'19"	8+28.95 TO 10+62.36
C6	30.93'	250.00'	N13°11'18"W 30.92'	7°05'23"	12+08.87 TO 12+39.81



LEGEND	
	PROPOSED STORM SEWER
	PROPOSED DRAINAGE ARROW
	PROPOSED CONTOURS
	EXISTING CONTOURS



- LEGEND**
- o - IRON STAKE - SET
 - - IRON FOUND
 - - WOOD STAKE
 - R - RECORDED DIMENSION
 - D - DEED DIMENSION
 - P - PLATTED DIMENSION
 - M - MEASURED DIMENSION
 - CL - CENTER LINE
 - CC - CORNER ON CONCRETE
 - EB - EDGE OF BITUMINOUS
 - EC - EDGE OF CONCRETE
 - EG - EDGE OF GRAVEL
 - G - GROUND ELEVATION
 - GTR - FLOW LINE OF GUTTER
 - OHE - OVERHEAD ELEC/UTILITY LINE
 - * - LIGHT POLE
 - - - - EX. CONTOUR LINE
 - X - X - FENCE LINE
 - CONC. - CONCRETE
 - BIT. - BITUMINOUS PAVEMENT
 - ENCR - PROPERTY LINE ENCROACHMENT
 - UTIL - UTILITY
 - ELEC. - ELECTRIC
 - RET. - RETAINING WALL
 - P/L - PROPERTY LINE
 - P/MT. - PAVEMENT
 - W.S. - WATER SERVICE LATERAL
 - B.M. - BENCHMARK
 - W.V. - WATER VALVE
 - HYD. - FIRE HYDRANT
 - CB - CATCH BASIN
 - MH - MANHOLE

TALISMAN DRIVE (PVT)
SCALE: HORIZ. 1" = 50', VERT. 1" = 5'

REVISIONS:

NO.	DATE	DESCRIPTION

DRAWN BY: MDC
APPROVED BY: MDC
DATE: MAY 13, 2020
REVISIONS:

Roosten & Associates
SURVEYING AND ENGINEERING
5055 PLAINFIELD AVE. NE
GRAND RAPIDS, MI 49525
TEL: (616) 361-7220
FAX: (616) 361-1822

STREET PLAN FOR TALISMAN DRIVE FOR TALISMAN DRIVE SECTION 21, T7N, R9W VERGENNES TOWNSHIP, KENT CO., MI.

CLIENT:
LEE HOVEY
590 TALISMAN DRIVE
LOWELL, MI 49331

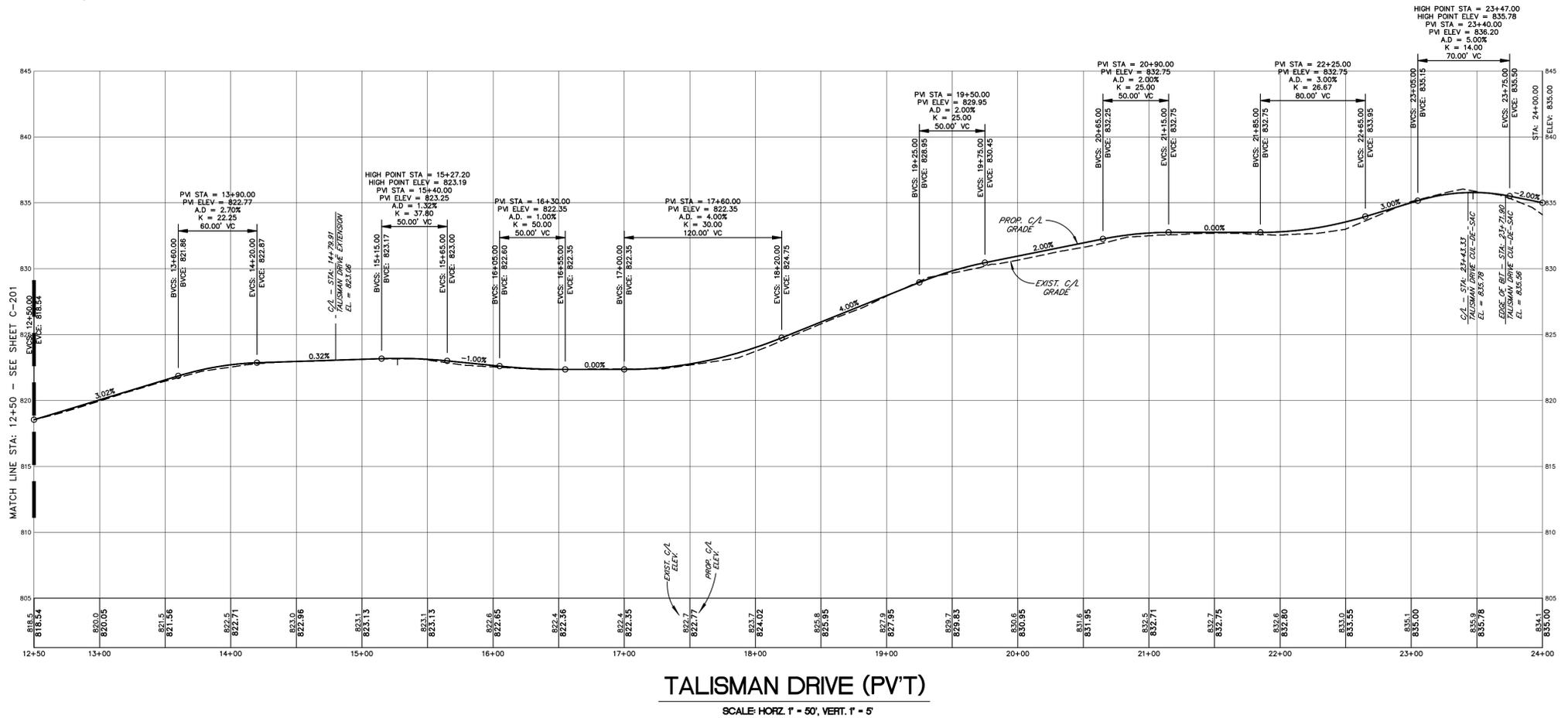
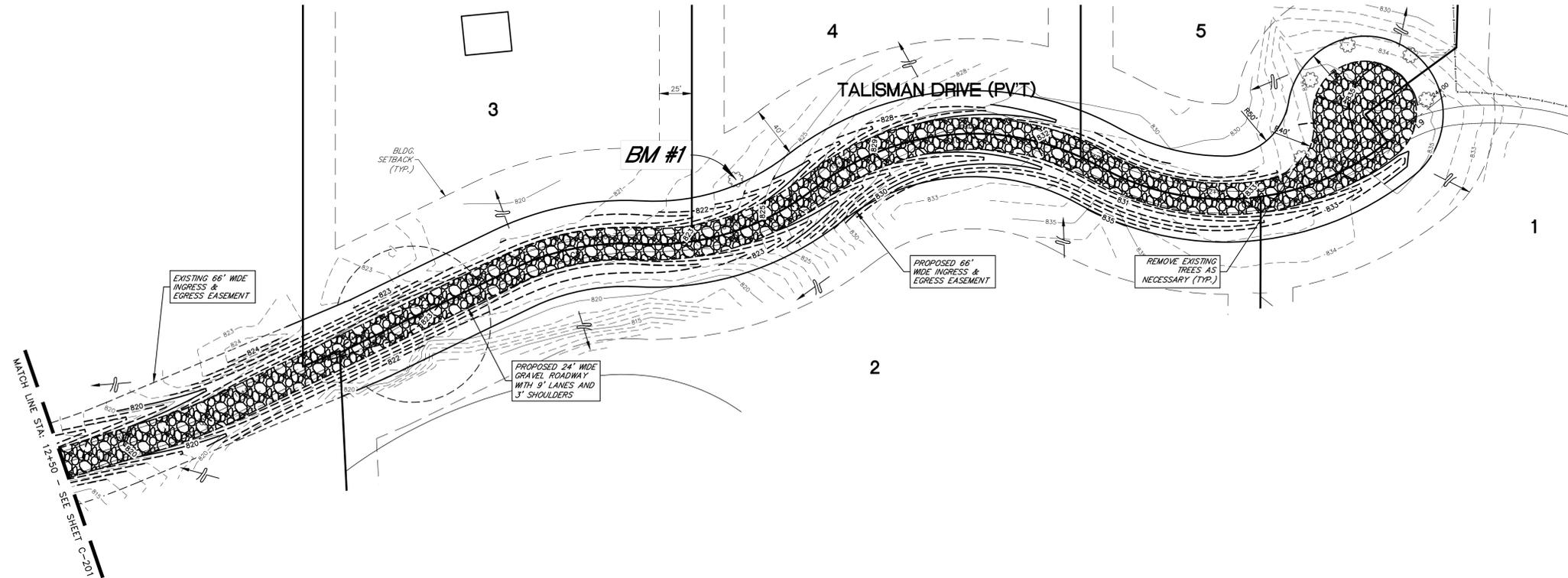
PROJECT NO. 200097
SHEET C-201

811 - CALL BEFORE YOU DIG

BENCHMARK #1 ELEV. = 825.76 TOP OF NAIL ON EAST SIDE OF 12" APPLE TREE LOCATED 30' WEST OF DRIVEWAY (N.A.V.D. 88 DATUM)

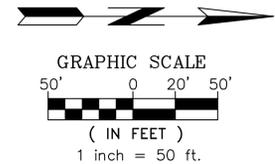
LINE TABLE			
LINE	BEARING	LENGTH	STATIONS
L7	N16°44'00"W	81.84'	12+39.81 TO 13+21.65
L8	N25°43'12"W	243.14'	13+84.38 TO 16+27.52
L9	N38°45'08"W	56.69'	23+43.31 TO 24+00.00

CURVE TABLE					
CURVE	LENGTH	RADIUS	LONG CHORD	DELTA	STATIONS
C7	62.74'	400.00'	N21°13'36"W 62.67'	8°59'12"	13+21.65 TO 13+84.38
C8	101.06'	200.00'	N11°14'41"W 99.99'	28°57'02"	16+27.52 TO 17+28.58
C9	144.02'	200.00'	N17°23'57"W 140.93'	41°15'34"	17+28.58 TO 18+72.60
C10	234.09'	200.00'	N04°29'51"W 220.96'	67°03'45"	18+72.60 TO 21+06.69
C11	236.62'	200.00'	N04°51'34"W 223.06'	67°47'10"	21+06.69 TO 23+43.31



LEGEND

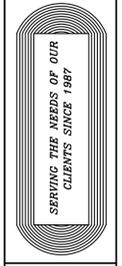
- PROPOSED STORM SEWER
- >— PROPOSED DRAINAGE ARROW
- - - - - PROPOSED CONTOURS
- - - - - EXISTING CONTOURS



- LEGEND**
- o - IRON STAKE - SET
 - - IRON FOUND
 - - WOOD STAKE
 - R - RECORDED DIMENSION
 - D - DEED DIMENSION
 - P - PLATTED DIMENSION
 - M - MEASURED DIMENSION
 - CL - CENTER LINE
 - CC - CORNER ON CONCRETE
 - EB - EDGE OF BITUMINOUS
 - EC - EDGE OF CONCRETE
 - EG - EDGE OF GRAVEL
 - GG - GROUND ELEVATION
 - GTR - FLOW LINE OF GUTTER
 - OHE - OVERHEAD ELEC/UTILITY LINE
 - * - LIGHT POLE
 - - - - - EX. CONTOUR LINE
 - X - X - FENCE LINE
 - CONC. - CONCRETE
 - BT - BITUMINOUS PAVEMENT
 - ENCR - PROPERTY LINE ENCROACHMENT
 - UTIL - UTILITY
 - ELEC. - ELECTRIC
 - RET. - RETAINING WALL
 - P/L - PROPERTY LINE
 - P/MT. - PAVEMENT
 - W.S. - WATER SERVICE LATERAL
 - BK - BENCHMARK
 - W.V. - WATER VALVE
 - HYD. - FIVE HYDRANT
 - CB - CATCH BASIN
 - MH - MANHOLE

TALISMAN DRIVE (PVT)
SCALE: HORIZ. 1" = 50', VERT. 1" = 5'

REVISIONS:
DRAWN BY: MDC
APPROVED BY: MDC
DATE: MAY 13, 2020
REVISIONS:



Roosien & Associates
SURVEYING AND ENGINEERING
5055 PLAINFIELD AVE. NE TEL: (616) 361-7220
GRAND RAPIDS, MI 49525 FAX: (616) 361-1822

STREET PLAN FOR TALISMAN DRIVE
SECTION 21, 17N, R9W
VERGENNES TOWNSHIP, KENT CO., MI.

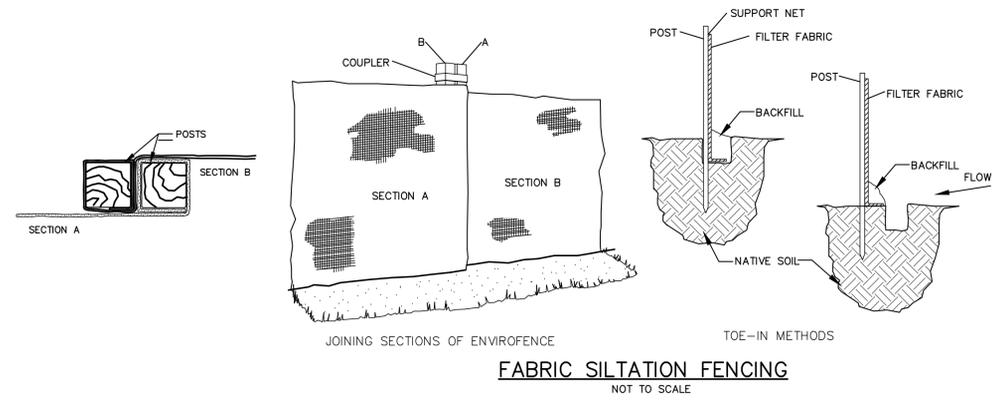
CLIENT:
LEE HOVEY
590 TALISMAN DRIVE
LOWELL, MI 49331

PROJECT NO. 200097
SHEET C-202

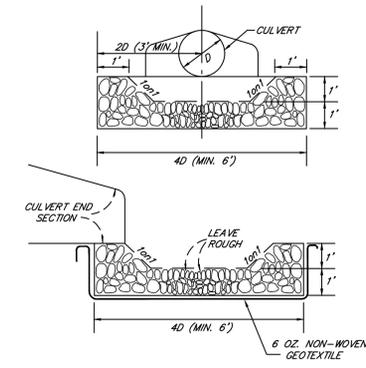
PROJECT NOTES AND SPECIFICATIONS

GENERAL NOTES

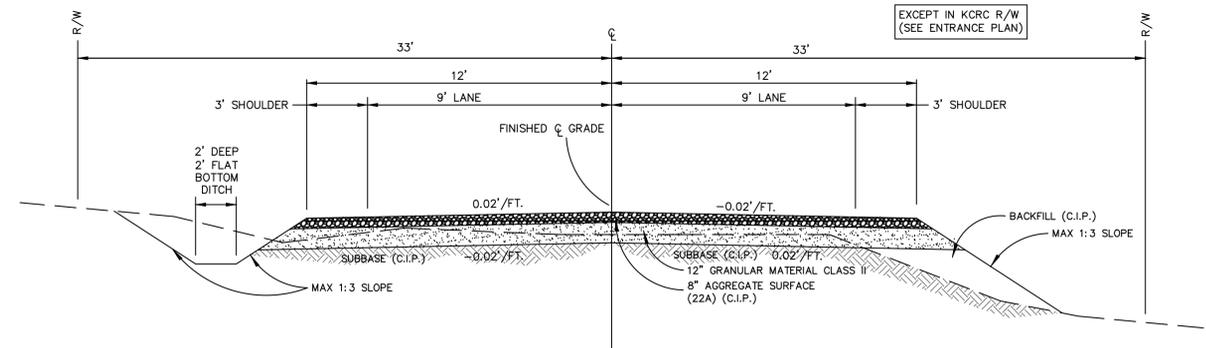
- A) ALL WORK SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS, CODES, RULES AND REGULATIONS. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED BY STATE AND LOCAL AGENCIES RELATED TO SOIL EROSION AND SEDIMENTATION.
- B) ALL ITEMS OF WORK NOT COVERED BY THESE SPECIFICATIONS SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE STATE OF MICHIGAN DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR CONSTRUCTION WHICH SHALL BE REFERRED TO AS THE STANDARD SPECIFICATIONS.
- C) ALL LOCATIONS OF EXISTING UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE. EXACT LOCATIONS SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR BEFORE BEGINNING CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR CONTACTING MISS DIG AT 800/482-7171 AT LEAST 3 WORKING DAYS PRIOR TO ANY UNDERGROUND CONSTRUCTION.
- D) CONTRACTOR SHALL NOTIFY THE OWNER AND ENGINEER 48 HOURS BEFORE WORK BEGINS.
- E) ROOSSEN AND ASSOCIATES P.L.L.C. AS THE DESIGN PROFESSIONAL SHALL NOT BE RESPONSIBLE OR LIABLE FOR PROBLEMS WHICH ARISE FROM FAILURE TO FOLLOW THESE DRAWINGS, SPECIFICATIONS AND THE DESIGN INTENT THEY CONVEY, OR FOR PROBLEMS WHICH RISE FROM OTHERS' FAILURE TO OBTAIN AND FOLLOW THE DESIGN PROFESSIONAL'S GUIDANCE WITH RESPECT TO ANY ERRORS, OMISSIONS, INCONSISTENCIES, AMBIGUITIES OR CONFLICTS WHICH ARE ALLEGED.
- F) CONTRACTOR IS RESPONSIBLE FOR SITE SAFETY, CONSTRUCTION MEANS, CONTROLS, TECHNIQUES, SEQUENCES AND PROCEDURES.
- GENERAL SPECIFICATIONS
- A) ALL CONSTRUCTION AREAS SHALL BE CLEARED OF ALL TREES, BRUSH, WEEDS, ETC. ALL SPOIL MATERIAL IS TO BE DISPOSED OF IN AREAS DESIGNATED BY THE OWNER AND IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS.
- B) STRIP ALL TOPSOIL AND ORGANIC MATERIAL ON SITE WITHIN THE CONSTRUCTION LIMITS OF THE PROJECT WHERE GRADES ARE TO BE CHANGED, OR IN AREAS TO BE IMPROVED. IF MATERIAL IS FREE OF ROOTS, ROCKS AND DEBRIS, AND IS APPROVED BY THE ENGINEER, IT SHALL BE TEMPORARILY STOCKPILED ON SITE FOR LATER USE.
- C) CONSTRUCTION ACCESS AND MATERIAL STORAGE IS LIMITED TO THE AREAS DESIGNATED ON THE DRAWINGS OR AS APPROVED BY THE OWNER.
- D) WHERE IT IS NECESSARY TO WORK OUTSIDE THE PROPERTY CONTROLLED BY THE OWNER, THE CONTRACTOR SHALL OBTAIN LEGAL AUTHORITY FROM ADJACENT PROPERTY OWNERS TO COMPLETE THE WORK AS OUTLINED IN THESE DOCUMENTS.
- E) ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE BROUGHT TO FINISH GRADES AS SHOWN ON THE DRAWINGS. ALL AREAS DISTURBED SHALL BE RESTORED WITH A MINIMUM OF 4" OF TOPSOIL, SEEDED AND MULCHED. USE 220 POUNDS/ACRE OF CLASS A SEED AS LISTED IN THE STANDARD SPECIFICATIONS, OR APPROVED EQUAL.
- F) THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION ON THE NEED FOR IMPORTED OR EXPORTED MATERIAL. THE PROPOSED GRADING PLAN MAY NOT PROVIDE FOR A "BALANCED" SITE.
- G) ALL AREAS DISTURBED DUE TO SITE ACCESS SHALL BE RESTORED TO THE PRECONSTRUCTION CONDITION OR BETTER.
- H) BACKFILL AND COMPACTION: ALL BACKFILL SHALL BE CLEAN, FREE OF LARGE ROCKS, DEBRIS AND ORGANIC MATERIAL. COMPACT ALL BACKFILL TO 95% OF MAXIMUM DENSITY AS DETERMINED BY THE MODIFIED PROCTOR TEST, ASTM D-1557. BACKFILL SHALL BE PLACED IN A MAXIMUM OF 12" LIFTS.
- I) STORM SEWER CULVERT SHALL BE SMOOTH LINED CORRUGATED POLYETHYLENE PIPE OR REINFORCED CONCRETE PIPE. ALL EXPOSED PIPE ENDS SHALL HAVE END SECTIONS INSTALLED.



FABRIC SILTATION FENCING
NOT TO SCALE



RIPRAP APRON
NOT TO SCALE



PROP. GRAVEL ROAD SECTION DETAIL
NOT TO SCALE

DRAWN BY: MDC APPROVED BY: MDC DATE: MAY 13, 2020 REVISIONS:	SERVING THE NEEDS OF OUR CLIENTS SINCE 1987	Roosien & Associates SURVEYING AND ENGINEERING 5055 PLAINFIELD AVE., NE GRAND RAPIDS, MI 49525 TEL: (616) 361-7220 FAX: (616) 361-1822	DETAIL AND SPECIFICATION PLAN FOR TALISMAN DRIVE SECTION 21, T7N, R9W VERGENNES TOWNSHIP, KENT CO., MI.	CLIENT: LEE HOVEY 590 TALISMAN DRIVE LOWELL, MI 49331
PROJECT NO. 200097	SHEET C-201	PROJECT NO. 200097	SHEET C-201	PROJECT NO. 200097

