

900 W. Hamlin Rd - Cover Sheet

SECTION 22 T. 3N., R. 11E., ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN

ENGINEER'S QUANTITY LIST: TOTAL
10/28/2021
Christian Covenant Church
W Hamlin Rd, Rochester Hills, MI

DESCRIPTION	QUANTITY	UNIT
8" D.I. Watermain CI-54	400	L.F.
Fire Hydrant	1	EA.
Concrete sidewalk	1,672	S.F.
4" asphalt w/aggregate base	8,879	S.F.

Legal Description:
A PARCEL OF LAND IN THE SOUTHWEST 1/4 OF SECTION 22, TOWN 3 NORTH, RANGE 11 EAST, CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN MORE PARTICULARLY DESCRIBED AS:
COMMENCING AT THE SOUTHWEST CORNER OF SECTION 22; THENCE N87°10'11"E ALONG THE SOUTH LINE OF SECTION 22 330.00 FEET TO POINT OF BEGINNING; THENCE N02°31'40"W 660.00 FEET; THENCE N87°28'20"E 330.00 FEET; THENCE S02°31'40"E 660.00 FEET TO A POINT ON THE SOUTH LINE OF SECTION 22; THENCE S87°28'20"W 330.00 FEET TO THE POINT OF BEGINNING.
CONTAINING 217,800 SQUARE FEET OR 5.00 ACRES OF LAND SUBJECT TO ALL EASEMENT AND RESTRICTIONS OF RECORD, IF ANY.

Benchmarks:
1) PVMT C.B. IN WEST HAMLIN ROAD AS SHOWN PLAN RIM=(837.01) NAVD88
2) WATER GATE VALVE IN EAST APPROACH FROM WEST HAMLIN ROAD AS SHOWN ON PLAN RIM=(841.53) NAVD88

Site Plan Review		
Reviewed for compliance to the City Ordinance, Building and Fire Codes		
Department	Reviewer	Approved
Planning	Kristen Kapelanski 248-841-2772 KapelanskiK@RochesterHills.org	Yes
Building	Mark Artinian 248-841-2446 ArtinianM@RochesterHills.org	Yes
Engineering	Jason Boughton 248-841-2490 BoughtonJ@RochesterHills.org	Yes
Traffic	Keith Depp 248-841-2503 DeppK@RochesterHills.org	Yes
Nat. Resources	Matt Einheuser 248-841-2551 EinheuserM@RochesterHills.org	Yes
Fire	Lt. Josh Boyce 248-841-2713 BoyceJ@RochesterHills.org	Yes

City of Rochester Hills
Planning & Economic Development

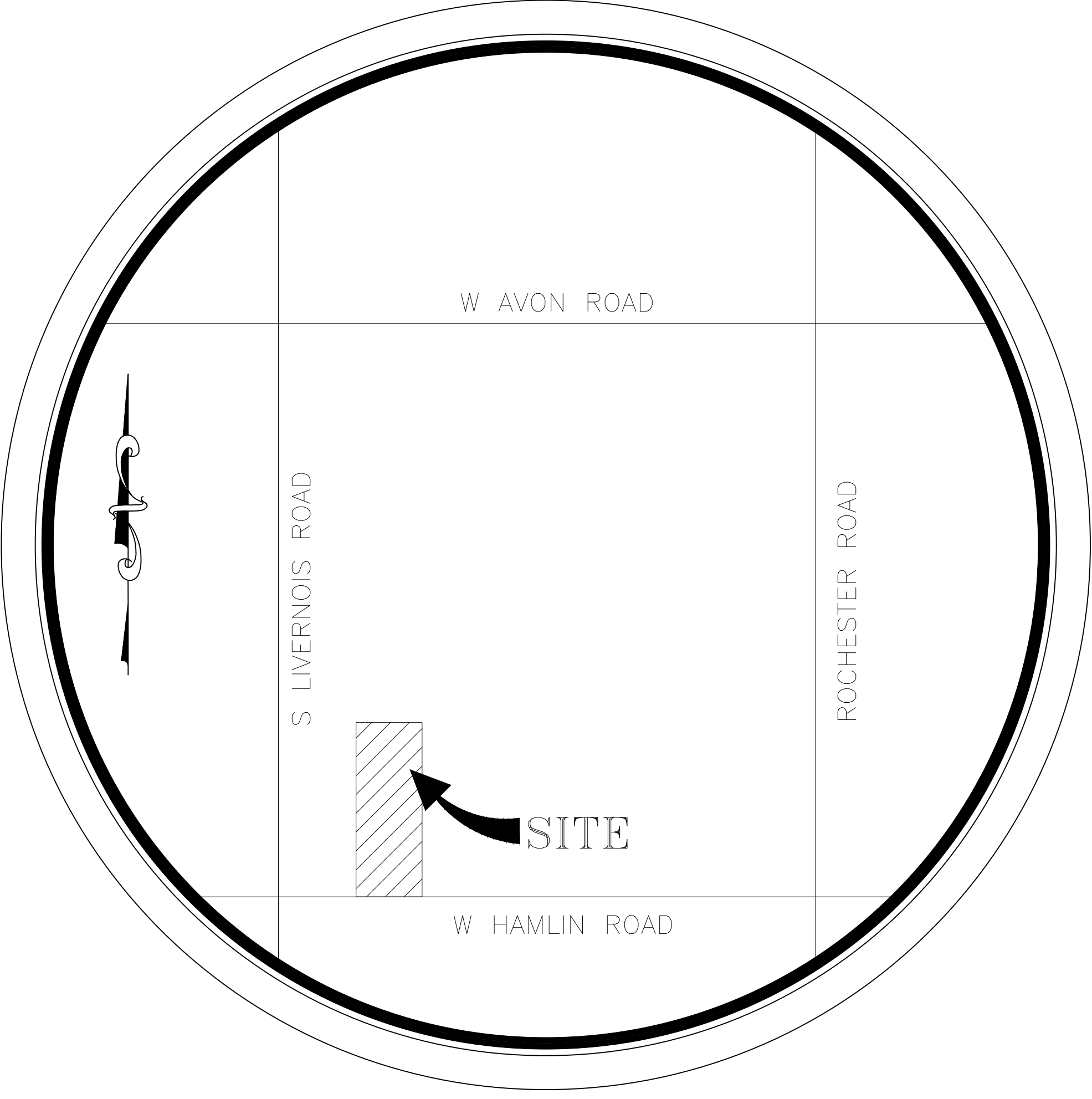
Conditions and mark-ups noted throughout the plan set must be addressed prior to final approval.

Description Legend:

TC	TOP OF CURB
TM	TOP OF WALK
TD	TOP OF DRIVE
ME	MATCH EXISTING
FS	FINAL (FINISHED) GRADE
SW	SWALE
HP	HIGH POINT
CB	CATCH BASIN
GF	GARAGE FINISH FLOOR
FF	FIRST FINISH FLOOR
BFT	BSMT. FINISH FLOOR
STM-MH	STORM MANHOLE
SAN-MH	SANITARY MANHOLE
SAN-BLD	SANITARY BUILDING
T/WALL	TOP OF WALL
B/WALL	BOTTOM OF WALL
GRD	TOPOGRAPHY SPOT GRADE
TREE	EXISTING TREE
BSMT	BASEMENT
UNEX	UNEXCAVATED
EDP	EDGE OF PAVEMENT
EDG	EDGE OF GRAVEL
P	PORCH
W/B	WATER BOX
IR	IRON FOUND
MF	MONUMENT FOUND

EXISTING	DESCRIPTION	PROPOSED
	SILT FENCE	
	STORM SEWER	
	SANITARY SEWER	
	WATER MAIN	
	GAS MAIN	
	OVERHEAD WIRES	
	UNDERGROUND TELEPHONE	
	OVERHEAD ELECTRIC	
	UNDERGROUND ELECTRIC	
	FENCE OR GUARDRAIL	
	RIGHT-OF-WAY EASEMENT	
	PROPERTY LINE SETBACK LINE	
	ROADWAY CENTERLINE	
	CONTOUR	
	SANITARY MANHOLE	
	STORM MANHOLE	
	REAR-YARD CATCH BASIN	
	STREET CATCH BASIN	
	FIRE HYDRANT	
	PIPE REDUCER	
	VALVE AND VAULT, VALVE	
	FLARED END SECTION	
	STREET LIGHT	
	GUY WIRE	
	UTILITY POLE SIGN	
	SPOT ELEVATION	
	SOIL BORING	
	OVERLAIN FLOOD ROUTE	
	DRAINAGE SLOPE	
	WATER'S EDGE OR E OF DITCH	
	TREE, FIR TREE, BUSH	
	SECTION CORNER	
	CURB AND GUTTER CLEANOUT	
	TELEPHONE RISER	
	CABLE RISER	
	ELECTRIC TRANSFORMER	

A conditional use permit is required for the proposed drive-through. Refer to Section 138-1.203 of the Zoning Ordinance for required signage that must be placed on the property 15 calendar days prior to the public hearing.



INDEX OF SHEETS

- 1.) COVER
- 2.) EXISTING CONDITIONS/TOPOGRAPHY
- 3.) SITEPLAN
- 4.) DEMOLITION PLAN
- 5.) WATERMAIN AND PROFILE
- 6.) PAVING
- 7.) WATERMAIN DETAIL SHEET 1
- 8.) WATERMAIN DETAIL SHEET 2
- 9.) WATERMAIN SPECIAL DETAILS

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CLIENT:	COVENANT CHURCH
PROJECT LOCATION:	ROCHESTER HILLS
DATE:	07-12-2021
SCALE:	

900 W. HAMLIN RD
COVER SHEET

Mauro Engineering
Development & Building Solutions • Civil Engineers/Designers • Planners

48657 HAYES ROAD, SHELBY TOWNSHIP, MI 48315
PH: (586) 247-2800 FAX: (586) 247-2811
VISIT US AT: WWW.MAUROENG.COM



PRELIMINARY <input type="checkbox"/>	CONSTRUCTION <input type="checkbox"/>	AS-BUILT <input type="checkbox"/>
Drawn By:	MIM	
Checked By:	G.M.	
Approved By:	S.M.	

Revisions:	Date:	By:
PER CITY COMM	2021-10-11	A.S.

OWNER
COVENANT CHRISTIAN CHURCH
CLAY BERNIER
900 WEST HAMLIN ROAD
ROCHESTER HILLS, MI. 48307
(586)-703-0046

SURVEYOR / ENGINEER

MAURO ENGINEERING
48657 HAYES ROAD
SHELBY TOWNSHIP, MI 48315
(586) 247-2800



SIMONE B. MAURO, P.E. - No. 30592
GIOVANNI B. MAURO, P.E. - No. 58276

Job No.	21-104
Sheet No.	1 OF 9

The applicant needs to submit a Land Improvement Permit (LIP) application with engineer's estimate, fee and construction plans to proceed with the construction plan review process.

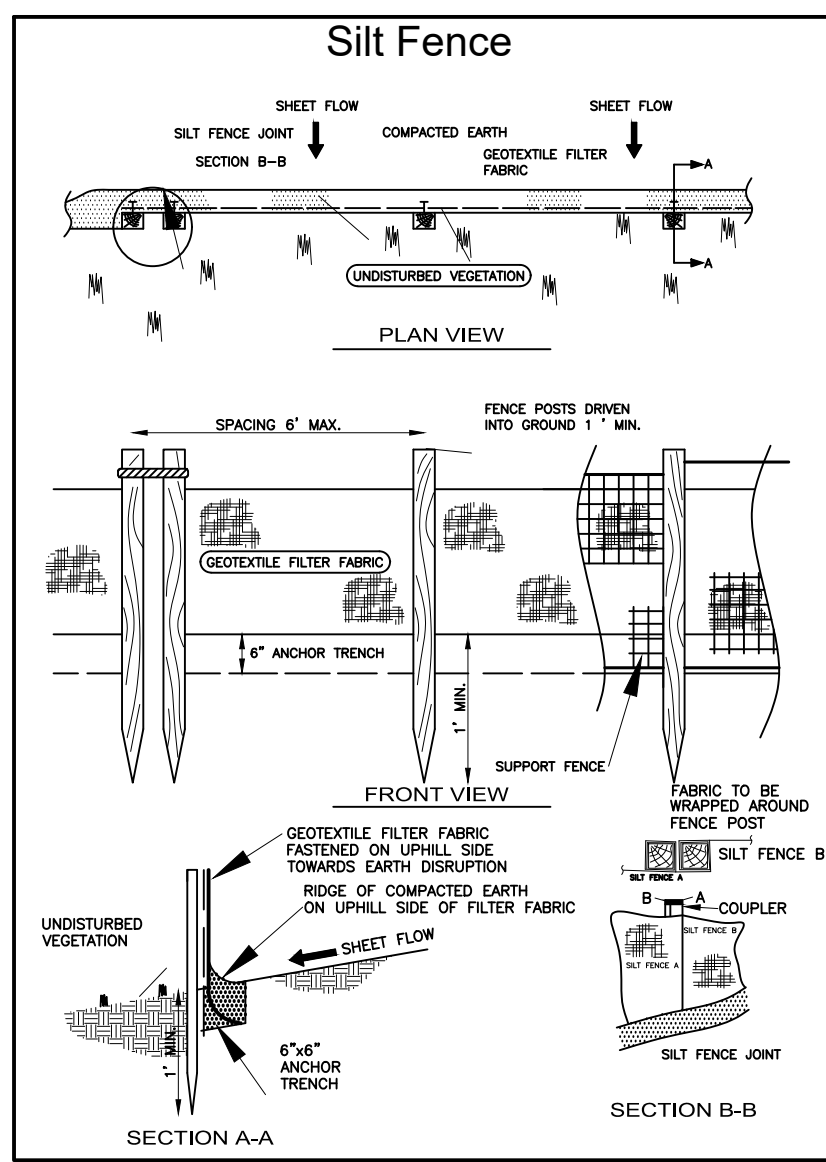
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Mauro Engineering
1.) Assumes no responsibility for given house dimensions. Client must verify dimensions prior to construct.
2.) This plan shall not be used to set foundations.
3.) Setbacks shown on this plot plan were obtained from the municipality. Since deed restrictions are not supplied by the municipality, the client must verify any special subdivision restrictions.
4.) Lead locations shown on plan are approx. from approved plans. Contractor to field verify all lead locations.
5.) Assumes no responsibility for house placement designed within 0.5' of approved setbacks.
6.) No title work given at the time of survey

900 W. Hamlin Rd - Topography/Ex. Conditions

SECTION 22 T. 3N., R. 11E., ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN



Soil Erosion Notes:

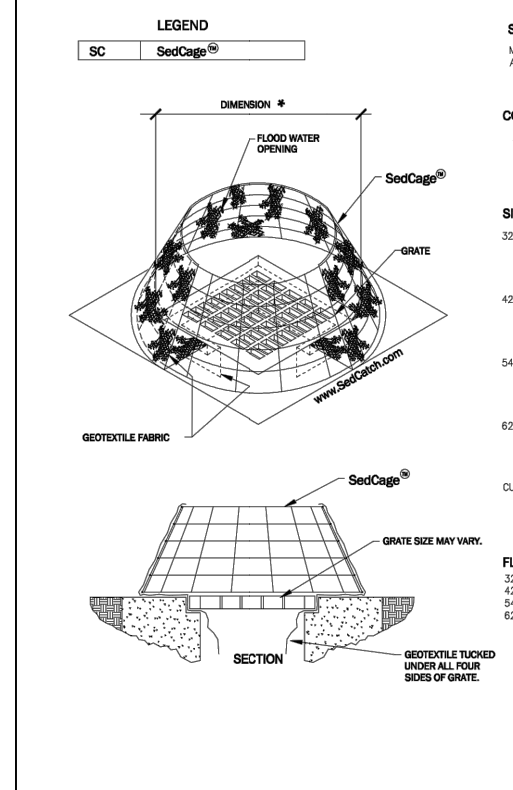
- INSTALL EROSION CONTROL MEASURES PRIOR TO CONSTRUCTION.
- ALL SOIL EROSION MEASURES MUST BE IN PLACE PRIOR TO ANY EARTH MOVEMENT.
- COMPLETE ALL EARTH MOVEMENT.
- RIGHT-OF-WAY MUST BE STABILIZED PRIOR TO FINAL GRADE INSPECTION.
- ALL SWALE AREAS, ALL SLOPES GREATER THAN 1:5 AND 1:1 AROUND STORM STRUCTURES MUST BE STABILIZED PRIOR TO FINAL GRADE CERTIFICATION.
- AFTER PERMANENT EARTH STABILIZATION IS COMPLETE, REMOVE EROSION CONTROL MEASURES.
- SOIL TYPES FOR THIS LOT ARE: 10B (Particulate sandy loam) 11B (Capac sandy loam)
- TOTAL GROSS ACREAGE DISTURBED= 0.158 ACRES
- THE NEAREST WATER COURSE IS THE CLINTON RIVER 3,200 FEET TO THE NORTHWEST
- LIMITS OF EARTH DISRUPTION WILL BE CONTAINED ON SITE TO ACHIEVE POSITIVE DRAINAGE PER MASTER GRADE PLAN
- SOIL EROSION CONTROL MEASURES WILL BE MAINTAINED ON A WEEKLY BASIS AND AFTER EACH STORM EVENT
- TYPE OF PERMANENT VEGETATIVE RESTORATION WILL BE SEED & MULCH OR SOD.
- DURING DRY PERIODS, ALL DISTURBED AREAS SHALL BE WATERED FOR DUST CONTROL.
- PERMANENT SOIL EROSION CONTROL MEASURES SHALL BE COMPLETED WITHIN 5 CALENDAR DAYS AFTER FINAL GRADING OR THE FINAL EARTH CHANGE HAS BEEN COMPLETED WHEN IT IS NOT POSSIBLE TO PERMANENTLY STABILIZE A DISTURBED AREA AFTER EARTH CHANGE HAS BEEN COMPLETED OR WHEN SIGNIFICANT EARTH CHANGE ACTIVITIES CEASE. TEMPORARY SOIL EROSION MEASURES SHALL BE IMPLEMENTED IMMEDIATELY. ALL TEMPORARY SOIL EROSION MEASURES WILL BE MAINTAINED UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED. ALL PERMANENT SOIL EROSION CONTROL MEASURES WILL BE IMPLEMENTED AND ESTABLISHED BEFORE A CERTIFICATE OF COMPLIANCE IS ISSUED.
- FINAL GRADE, ESTABLISH VEGETATION AND/OR LANDSCAPE ALL DISTURBED AREAS NOT BUILT OR PAVED UPON.

CONSTRUCTION SEQUENCE	SEQUENCE
SOIL EROSION CONTROL MEASURE	1
HOUSE CONSTRUCTION	52
DRIVEWAY & SIDEWALK CONSTRUCTION	4
FINAL GRADING	4
PERMANENT SOIL EROSION	1

Description Legend:

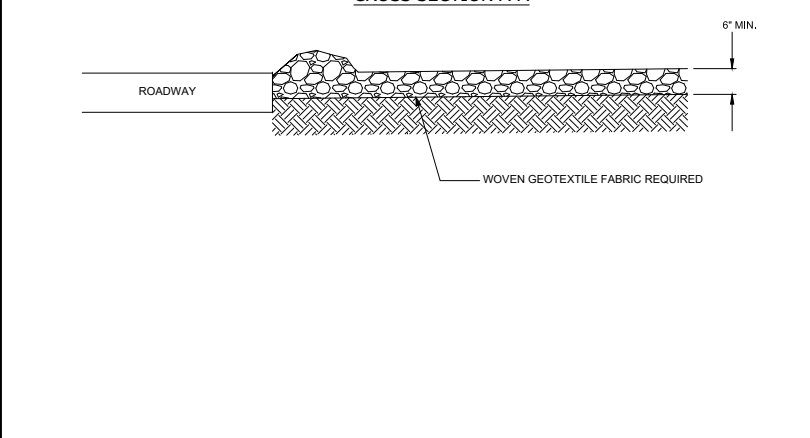
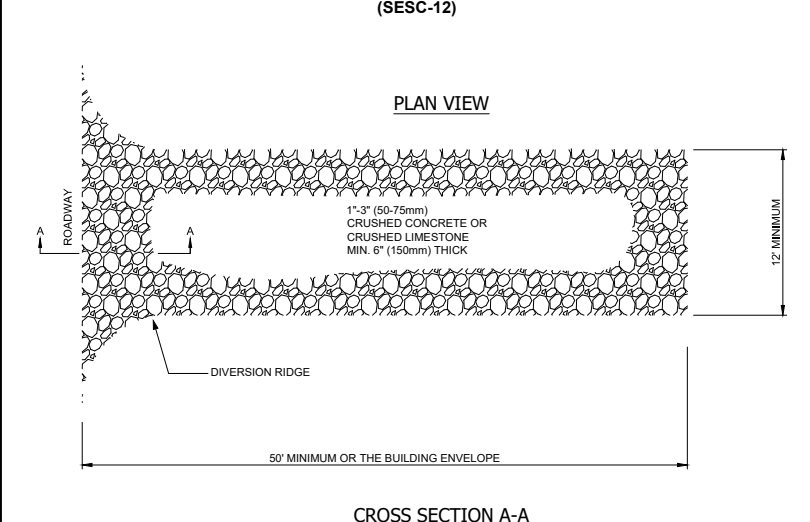
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- SAN-MH - SANITARY MANHOLE
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SedCatcher® SedCage® - Yard Inlet Protection



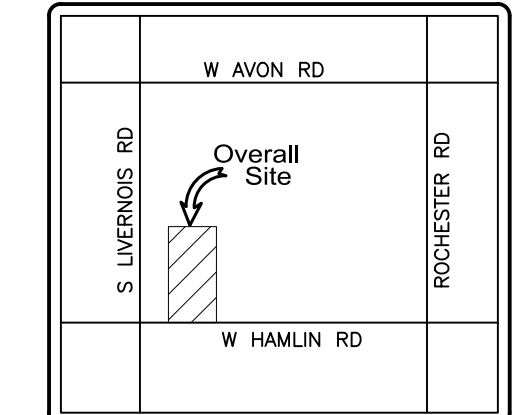
- OR VISIT US ONLINE: www.sedecap.com
- INSTALLATION: SEE INSTALLATION INSTRUCTIONS ON THE BACK OF THE DEVICE.
 - MAINTENANCE: CLEAN THE GRATE AND FILTER REGULARLY TO PREVENT CLOGGING.
 - REPLACEMENT: REPLACE THE GRATE AND FILTER WHEN THEY ARE DAMAGED OR WEAR OUT.
 - DISPOSAL: DISPOSE OF THE GRATE AND FILTER PROPERLY.

TEMPORARY STONE ACCESS DRIVE (SECC-12)



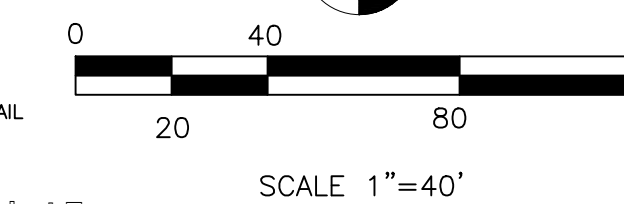
900 W. Hamlin Rd - Site Plan

SECTION 22 T. 3N., R. 11E., ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN



Location map
NOT TO SCALE

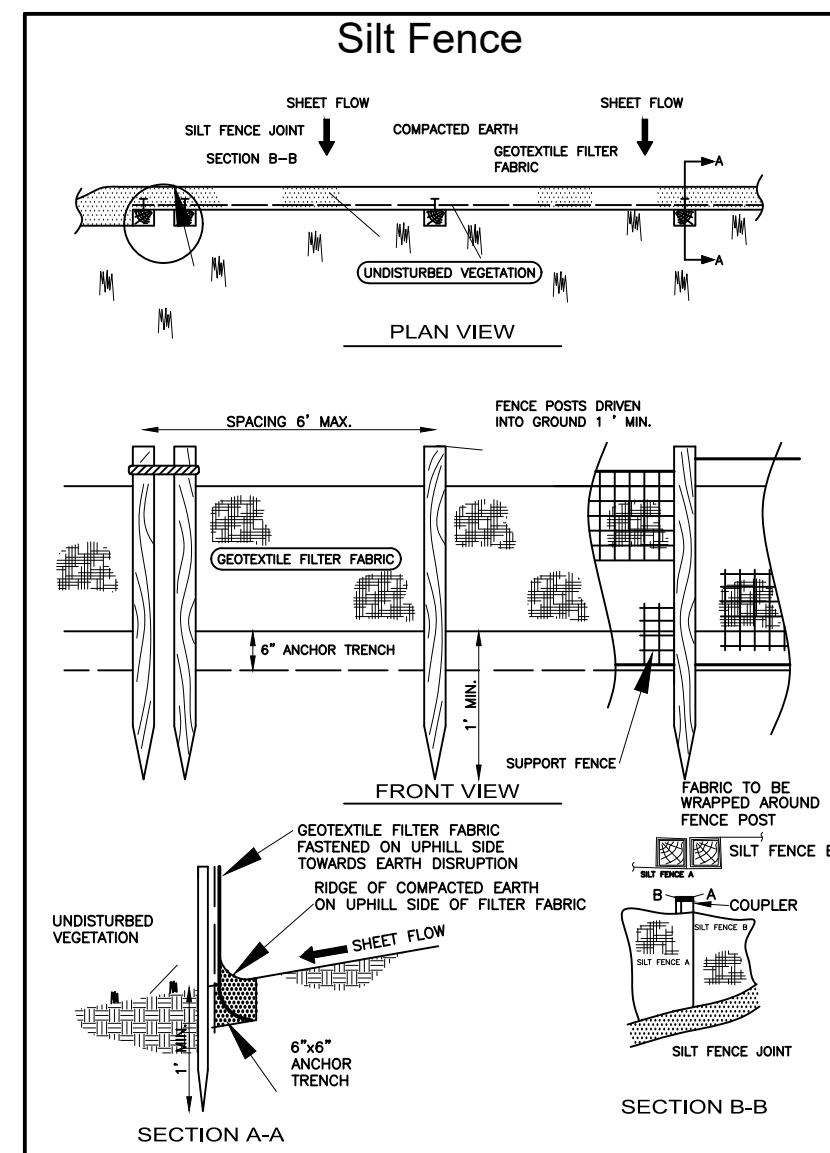
Onsite Contact:
CLAY BERNER
586-703-0046



SCALE 1"=40'

SOIL EROSION AND SEDIMENTATION CONTROL NOTES AND MAINTENANCE NOTES

- THIS PROJECT SHALL BE CONSTRUCTED IN COMPLIANCE WITH PART 91 OF ACT 451 OF 1994, AS AMENDED, THE SOIL EROSION AND SEDIMENTATION CONTROL ACT AND THE OCCISE ORDINANCE.
- ALL EROSION AND SEDIMENT CONTROL WORK SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE OAKLAND COUNTY PUBLIC WORKS OFFICE.
- EROSION AND ANY SEDIMENTATION FROM WORK ON THE SITE IS NOT ALLOWED TO COLLECT ON ANY OFFSITE AREAS OR IN WATERWAYS. WATERWAYS INCLUDE NATURAL AND MANMADE OPEN DITCHES, STREAMS, STORM DRAINS, LAKES AND PONDS.
- STAGING THE WORK WILL BE DONE BY THE LANDOWNER OR THE LANDOWNER'S REPRESENTATIVE AS DIRECTED IN THESE PLANS AND AS REQUIRED TO ENSURE PROGRESSIVE STABILIZATION OF DISTURBED EARTH CHANGE.
- THE LANDOWNER OR LANDOWNER'S REPRESENTATIVE SHALL BE RESPONSIBLE FOR INSTALLATION AND MAINTENANCE OF SOIL EROSION AND SEDIMENTATION DEVICES.
- THE LANDOWNER OR LANDOWNER'S REPRESENTATIVE SHALL IMPLEMENT AND MAINTAIN SOIL EROSION CONTROL MEASURES AS SHOWN ON THE PLANS BEFORE AND AT ALL TIMES DURING CONSTRUCTION ON THIS PROJECT. ANY MODIFICATIONS OR ADDITIONS TO SOIL EROSION CONTROL MEASURES DUE TO CONSTRUCTION OR CHANGED CONDITIONS SHALL BE COMPLETED WITHIN AS REQUIRED OR DIRECTED BY THE OAKLAND COUNTY PUBLIC WORKS OFFICE.
- IF ANY OF THESE SECC MEASURES ON THE SITE ARE DEEMED INADEQUATE OR INEFFECTIVE, THE OAKLAND COUNTY PUBLIC WORKS OFFICE, SECC DIVISION, HAS THE RIGHT TO REQUIRE ADDITIONAL SECC MEASURES AT THE EXPENSE OF THE LANDOWNER.
- INSTALL SILT FENCE AS INDICATED ON PLAN AND AT ADDITIONAL AREAS AS NECESSARY.
 - SILT FENCE SHALL BE INSTALLED PER DETAIL.
 - BUILT-UP SEDIMENT SHALL BE REMOVED WHEN SEDIMENT ACCUMULATED TO 1/3 TO 1/2 OF THE HEIGHT OF THE FENCE.
 - IF SILT FENCE FABRIC DECOMPOSES OR BECOMES INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND BARRIER IS STILL REQUIRED, THE FABRIC SHALL BE REPLACED PROMPTLY.
 - SILT FENCE SHALL BE INSPECTED WEEKLY UNDER NORMAL CONDITIONS, WITHIN 24 HOURS OF RAINFALL AND DAILY DURING A PROLONGED RAIN EVENT. REQUIRED MAINTENANCE SHALL BE PROVIDED PROMPTLY.
- INSTALL INLET FILTERS ON ALL PAVEMENT CATCH BASINS PER DETAIL. INLET FILTERS SHALL BE INSPECTED WEEKLY UNDER NORMAL CONDITIONS, WITHIN 24 HOURS OF RAINFALL AND DAILY DURING A PROLONGED RAIN EVENT.
 - BUILDUP OF SEDIMENT SHALL BE REMOVED PROMPTLY.
 - IF FABRIC DECOMPOSES OR BECOMES INEFFECTIVE PRIOR TO THE END OF THE EXPECTED LIFE AND THE BARRIER IS STILL REQUIRED, THE FABRIC SHALL BE REPLACED PROMPTLY.
- INSTALL SEDIMENT-CATCH TYPE DEVICE, AND/OR PROVIDE SILT FENCE WITH SOD AROUND REAR YARD CATCH BASIN PER DETAIL.
 - REAR YARD CATCH BASINS SHALL BE INSPECTED WEEKLY UNDER NORMAL CONDITIONS WITHIN 24 HOURS OF RAINFALL AND DAILY DURING A PROLONGED RAIN EVENT.
 - BUILT-UP SEDIMENT SHALL BE REMOVED WHEN SEDIMENT ACCUMULATES TO 1/3 TO 1/2 OF THE HEIGHT OF THE SILT FENCE.
 - IF FABRIC DECOMPOSES OR BECOMES INEFFECTIVE PRIOR TO THE END OF THE EXPECTED LIFE AND THE BARRIER IS STILL REQUIRED, THE FABRIC SHALL BE REPLACED PROMPTLY.
- ALL STOCKPILED SOILS MUST MAINTAINED IN SUCH A WAY AS TO PREVENT EROSION FROM LEAVING THE SITE. IF THE STOCKPILE WILL BE ON SITE FOR MORE THAN 30 DAYS, THE STOCKPILE MUST BE SEED. SILT FENCE MUST BE INSTALLED AROUND THE PERIMETER OF THE STOCKPILE.
- IMMEDIATELY AFTER SEEDING, MULCH ALL SEEDING AREAS WITH UNWEATHERED SMALL FRAM STRAW. SPREAD UNIFORM AT THE RATE OF 1/2 TO 2 TONS PER ACRE OR 100 POUNDS PER 1000 SQUARE FEET. THIS MULCH SHOULD BE ANCHORED WITH A DISC TYPED MULCH ANCHORING TOOL, OR OTHER MEANS AS APPROVED BY THE OAKLAND COUNTY PUBLIC WORKS OFFICE.
- IF ANY DEWATERING IS NEEDED, IT SHALL BE DISCHARGED THROUGH A FILTER BAG OVER A WELL VEGETATED AREA. THE PUMP MUST DISCHARGE AT A NON-EROSIVE VELOCITY. IF NECESSARY, AN APPROVED ENERGY DISSIPATER MAY BE USED.
- ALL DIRT STACKED ONTO ANY ROADWAY SHALL BE REMOVED IMMEDIATELY.
- STREETS AND OR PARKING AREAS WILL BE SCARDED ON A DAILY BASIS AND SWEEPED AT A MINIMUM OF ONCE PER WEEK BY THE LANDOWNER OR LANDOWNER'S REPRESENTATIVE.
- DURING DRY PERIODS, ALL DISTURBED AREAS SHALL BE WATERED FOR DUST CONTROL.
- PERMANENT SOIL EROSION CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES OR ANY DISTURBED LAND AREAS SHALL BE COMPLETED WITHIN 90 DAYS OF THE FINAL GRADING OR THE FINAL EARTH CHANGE HAS BEEN COMPLETED WHEN IT IS NOT POSSIBLE TO PERMANENTLY STABILIZE A DISTURBED AREA AFTER EARTH CHANGE HAS BEEN COMPLETED OR WHERE SIGNIFICANT EARTH CHANGE ACTIVITY CEASES, TEMPORARY SOIL EROSION MEASURES SHALL BE IMPLEMENTED IMMEDIATELY. ALL TEMPORARY SOIL EROSION CONTROL MEASURES WILL BE MAINTAINED UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED. ALL PERMANENT SOIL EROSION CONTROL MEASURES WILL BE IMPLEMENTED AND ESTABLISHED BEFORE A CERTIFICATE OF COMPLIANCE IS ISSUED.
- FINAL GRADE, ESTABLISH VEGETATION AND OR LANDSCAPE ALL DISTURBED AREAS NOT BUILT OR PAVED UPON.
- REMOVE ALL TEMPORARY SOIL DEVICES AFTER PERMANENT STABILIZATION IS ESTABLISHED.



Soil Erosion Notes:

- INSTALL EROSION CONTROL MEASURES PRIOR TO CONSTRUCTION.
- ALL SOIL EROSION MEASURES MUST BE IN PLACE PRIOR TO ANY EARTH MOVEMENT.
- COMPLETE ALL EARTH MOVEMENT.
- RIGHT-OF-WAY MUST BE STABILIZED PRIOR TO FINAL GRADE INSPECTION.
- ALL SWALE AREAS, ALL SLOPES GREATER THAN 1:5 AND 10' AROUND STORM STRUCTURES MUST BE STABILIZED PRIOR TO FINAL GRADE CERTIFICATION.
- AFTER PERMANENT EARTH STABILIZATION IS COMPLETED, REMOVE EROSION CONTROL MEASURES.
- SOIL TYPES FOR THIS LOT ARE:
11B: (White sandy loam)
11C: (Capp sandy loam)
- TOTAL GROSS ACRESAGE DISTURBED= 0.198 ACRES
- THE NEAREST WATER COURSE IS THE CLYTON RIVER, 2,200 FEET TO THE NORTHWEST
- LIMITS OF EARTH DISRUPTION WILL BE CONTAINED ON SITE TO ACHIEVE POSITIVE DRAINAGE PER MASTER GRADE PLAN
- SOIL EROSION CONTROL MEASURES WILL BE MAINTAINED ON A WEEKLY BASIS AND AFTER EACH STORM EVENT
- TYPE OF PERMANENT VEGETATION RESTORATION WILL BE SEED & MULCH OR SOD

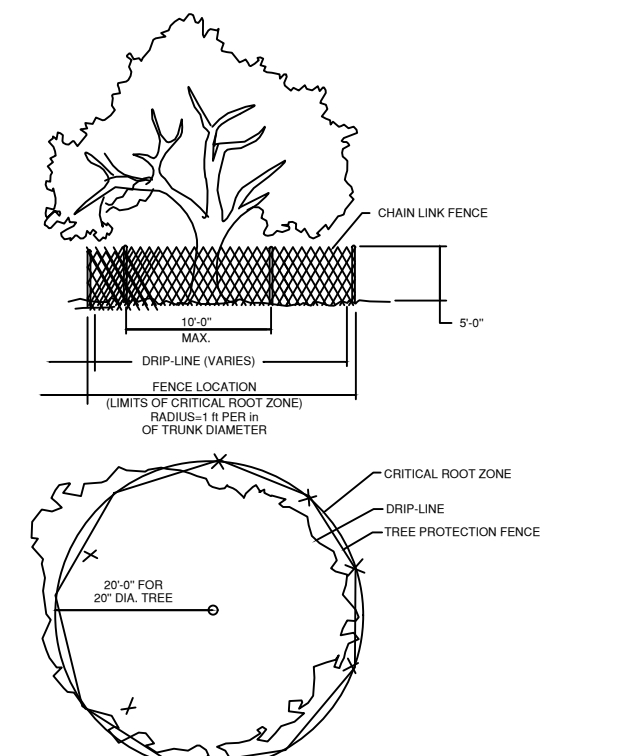
Tree Notes:

- NO TREES TO BE REMOVED NOR DISTURBED
- PLACE TREE PROTECTION PER CITY ORDINANCES
- 10% OF TREES TO BE PRESERVED
- ALL TREES WHICH HAVE BEEN APPROVED SHALL BE SO IDENTIFIED ON SITE BY FLOURESCENT ORANGE SPRAY PAINT (CHALK BASE) OR BY RED FLAGGING TAPE RIOR TO ANY ACTIVITY
- NO PERSON SHALL CONDUCT ACTIVITY WITHIN THE DRIP LINE OF ANY TREE DESIGNATED
- DURING CONSTRUCTION, NO PERSON SHALL ATTACH A DEVICE OR WIRE TO ANY REMAINING TREE, EXCEPT TO CORROD OFF PROTECTED AREAS AS REQUIRED

Tree List:

SPECIES	SIZE (IN.)	CONDITION
WHITE PINE	4	GOOD
WHITE PINE	6	GOOD
WHITE PINE	10	GOOD
WHITE PINE	13	GOOD
CRAB APPLE	4	GOOD
CRAB APPLE	8	GOOD
WHITE PINE	4	GOOD
WHITE PINE	4	GOOD
PEAR	12	GOOD
MALBERRY	14	GOOD
SPRUCE	18	GOOD
PEAR	12	GOOD
PEAR	12	GOOD
SPRUCE	4	GOOD
SPRUCE	6	GOOD
SPRUCE	8	GOOD
SPRUCE	8	GOOD
SPRUCE	8	GOOD
SPRUCE	8	GOOD
PEAR	4	GOOD
PEAR	12	GOOD
CRAB APPLE	8	GOOD
PEAR	8	GOOD
PEAR	8	GOOD
PEAR	8	GOOD
RED PINE	10	GOOD
WEeping WILLOW	36	GOOD
PEAR	8	GOOD
PEAR	8	GOOD
PEAR	8	GOOD
PEAR	8	GOOD
PEAR	12	GOOD
SPRUCE	11	GOOD
SPRUCE	11	GOOD
PEAR	12	GOOD
PEAR	11	GOOD
HONEY LOCUST	10	GOOD
HONEY LOCUST	8	GOOD
WHITE PINE	4	GOOD
WHITE PINE	4	GOOD
CRAB APPLE	8	GOOD

TREE PROTECTION FENCE DETAIL



arborvitae planting detail



no scale

Description Legend:

TC	TOP OF CURB
TI	TOP OF WALK
TD	TOP OF DRIVE
ME	MATCH EXISTING
FG	FINAL (FINISHED) GRADE
SW	SWALE
HF	HIGH POINT
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BFT	BSMT. FINISH FLOOR
SM-M	STORM MANHOLE
SAN-M	SANITARY MANHOLE
T/WALL	BUILDING
GW	TOP OF WALL
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CG	TOPOGRAPHIC SURFACE GRADE
TREE	EXISTING TREE
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EDP	EDGE OF PAVEMENT
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P	PORCH
WB	WATER BOX
W/F	IRON FOUND
MF	MONUMENT FOUND

EXISTING DESCRIPTION PROPOSED

EXISTING	DESCRIPTION	PROPOSED
---	SILT FENCE	---
---	STORM SOWER	---
---	SANITARY SEWER	---
---	WATER MAIN	---
---	GAS	---
---	OVERHEAD WIRES	---
---	UNDERGROUND TELEPHONE	---
---	OVERHEAD ELECTRIC	---
---	UNDERGROUND ELECTRIC	---
---	FENCE OR GUARDRAIL	---
---	RIGHT-OF-WAY EASEMENT	---
---	PROPERTY LINE	---
---	SETBACK LINE	---
---	ROADWAY CENTERLINE	---
---	CONTOUR	---
---	SANITARY MANHOLE	---
---	STORM MANHOLE	---
---	REAR-YARD CATCH BASIN	---
---	STREET CATCH BASIN	---
---	FIRE HYDRANT	---
---	PIPE REDUCER	---
---	VALVE AND VAULT, VALVE	---
---	FLARED END SECTION	---
---	STREET LIGHT	---
---	GUY WIRE	---
---	UTILITY POLE	---
---	SIGN	---
---	SPOT ELEVATION	---
---	SOIL BORING	---
---	OVERLAND FLOOD ROUTE	---
---	DRAINAGE SLOPE	---
---	WATER'S EDGE OR E OF DITCH	---
---	TREE, FIR TREE, BUSH	---
---	SECTION CORNER	---
---	CURB AND GUTTER CLEAOUT	---
---	TELEPHONE RISER	---
---	CABLE RISER	---
---	ELECTRIC TRANSFORMER	---

Storage Calc.

IMPERVIOUS AREA ADDED = 13,780 SQ. FT.
PARCEL AREA = 217,800 SQ. FT.
10% OF PARCEL AREA = 21,780 SQ. FT.
21,780 SQ. FT. > 13,780 SQ. FT. THEREFORE OK
2 INCHES OVER AREA = 2,296.87 CU. FT.
STORAGE PROVIDED = 33,952.70 CU. FT.
33,952.70 > 2,296.87 THEREFORE OK

Pond Storage:

Storage Area 2 (Elev.)	833	30180	23298.59825	33952.7
832	17039	10654.076		
831.3	13471			

Benchmarks:

- PUMP C.B. IN WEST HAMLIN ROAD AS SHOWN PLAN RIM=(837.01) NAVD88
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 - This plan shall not be used to set foundations.
 - Setbacks shown on this plan were obtained from the municipality. Since deed restrictions are not supplied by the municipality, the client must verify any special subdivision restrictions.
 - Lead locations shown on plan are approx. from approved plans. Contractor to field verify all lead locations.
 - Assumes no responsibility for house placement designed within 0.5' of approved setbacks.
 - No title work given at the time of survey

UNAUTHORIZED USE OF THIS DRAWING WITHOUT WRITTEN PERMISSION FROM MAURO ENGINEERING IS STRICTLY PROHIBITED, AND IS A VIOLATION OF U.S. COPYRIGHT LAWS AND WILL BE SUBJECT TO CIVIL DAMAGES AND PROSECUTION

CLIENT: COVENANT CHURCH
PROJECT LOCATION: ROCHESTER HILLS
DATE: 07-12-2021
SCALE: 1"=40'
LEGAL DESCRIPTION:
A PARCEL OF LAND IN THE SOUTHWEST 1/4 OF SECTION 22, TOWN 3 NORTH, RANGE 11 EAST, CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN MORE PARTICULARLY DESCRIBED AS:
COMMENCING AT THE SOUTHWEST CORNER OF SECTION 22; THENCE N87°10'11"E ALONG THE SOUTH LINE OF SECTION 22 335.00 FEET TO POINT OF BEGINNING; THENCE N02°31'40"W 660.00 FEET; THENCE N87°28'20"E 330.00 FEET; THENCE S02°31'40"E 660.00 FEET TO A POINT ON THE SOUTH LINE OF SECTION 22; THENCE S87°28'20"W 330.00 FEET TO THE POINT OF BEGINNING.
CONTAINING 217,800 SQUARE FEET OR 5.00 ACRES OF LAND SUBJECT TO ALL EASEMENTS AND RESTRICTIONS OF RECORD, IF ANY.
REFERENCE MICHIGAN BUILDING CODE SECTION 903. REFER TO FLOOR PLAN
PASSENGER LOADING ZONE SHALL COMPLY WITH A17.1-2009 SECTION 903. REFER TO FLOOR PLAN
GARBAGE Note:
DUMPSTERS WILL NOT BE UTILIZED ON THIS SITE. GARBAGE CANS SHALL BE UTILIZED TO REMOVE WASTE
BUILDING CODE ANALYSIS:
1. CLASSIFICATION: A-3
2. TYPE OF CONSTRUCTION: V-B
3. FIRE SUPPRESSION: FIRE SUPPRESSION SHALL COMPLY WITH SECTION 903 AS APPLICABLE. PER RHPD (ANN EXHIBIT), THERE ARE 2 SPRINKLER HEADS IN THE EXISTING MECHANICAL ROOM. PER THE ARCHITECT, JUMP DESIGN, THERE IS NO OTHER FIRE SUPPRESSION THROUGHOUT THE BUILDING.
4. FIRE ALARM & SMOKE DETECTION: FIRE ALARM SHALL COMPLY WITH SECTION 907 AS APPLICABLE.
5. BUILDING HEIGHT:
a. PROPOSED: LESS THAN 40 FEET. THE TOWER OF THE PROPOSED ELEVATOR SHALL COMPLY WITH SECTION 504.3.
b. ALLOWABLE: 40 FEET
6. STORIES:
a. PROPOSED: 1
d. ALLOWABLE: 1
7. BUILDING AREA PER FLOOR:
a. PROPOSED: 4,356 SF +/- (TOTAL FIRST FLOOR INCLUDING PORTIONS TO ALL MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
b. ALLOWABLE: 6,000 SF
SIGN Note:
ALL SIGNS MUST MEET SECTION 138-8.603 AND CHAPTER 134 OF THE CITY CODE OF ORDINANCES. SIGNS MUST BE APPROVED UNDER A SEPARATE PERMIT ISSUED BY THE BUILDING DEPARTMENT
PARKING Calcs.
TOTAL EXISTING SPACES = 76
TOTAL PROPOSED SPACES = 12
ACCESSIBLE SPACES = 6
FIRE DEPARTMENT Notes:
-FIRE LINES SHALL BE DESIGNATED BY THE FIRE CODE OFFICIAL AND SHALL BE CONSPICUOUSLY POSTED ON BOTH SIDES OF THE FIRE LANE, WITH FIRE LANE SIGNS, SPACED NOT MORE THAN 100 FEET APART. FIRE LANE SIGNS SHALL READ "NO STOPPING, STANDING, PARKING, FIRE LANE" AND SHALL CONFORM TO ALL MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
-CONSTRUCTION SITES SHALL BE SAFEGUARDED IN ACCORDANCE WITH IFC 2006 CHAPTER 08, SEC. 503
-OPEN BURNING IS NOT PERMITTED, INCLUDING THE BURNING OF TRASH, SEEDS, OR LAND CLEARING MATERIALS. OPEN BURNING FOR WARMING OF SAND AND/OR WATER FOR THE PREPARATION OF MORTAR SHALL BE WITHIN THE CITY OF ROCHESTER HILLS BURN PERMIT GUIDELINES (FIRE PREVENTION ORDINANCE CHAPTER 08, SEC. 307.2 & 307.2.3)
GENERAL Notes:
ALL INTERIOR GRADES (ARCHITECTURAL) SHALL BE VERIFIED BY THE BUILDER, ARCHITECT AND/OR CONTRACTOR PRIOR TO CONSTRUCTION. ALL TRADES MUST USE THE ARCHITECTURAL PLANS OF RECORD FOR CONSTRUCTION.
OWNER, BUILDER AND/OR ANY CONTRACTORS SHALL COMPLY WITH ALL LOCAL CODES AND/OR ORDINANCES. APPROVAL OF THIS PLAN DOES NOT RELIEVE ANY PARTIES FROM THOSE COMPLIANCES
UTILITY LOCATIONS WERE OBTAINED FROM MUNICIPAL OFFICIALS AND RECORDS OF UTILITY COMPANIES, AND NO GUARANTEE CAN BE MADE TO THE COMPLETENESS OR EXACTNESS OF LOCATION.
THIS SURVEY MAY NOT SHOW ALL EASEMENTS OF RECORD UNLESS AN UPDATED TITLE POLICY IS FURNISHED TO THE SURVEYOR BY THE OWNER

Mauro Engineering
Development & Building Solutions
Civil Engineers & Designers
Planners
48657 Hayes Road, Shelby Township, MI 48315
Ph: (586) 247-2800 • Fax: (586) 247-2811
Visit us at: www.mauroeng.com

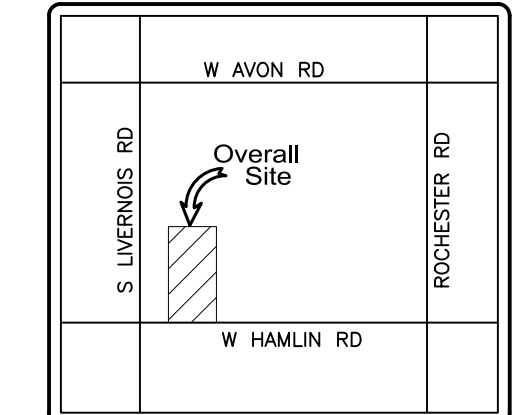
3 WORKING DAYS BEFORE YOU DIG CALL MISS DIG 1-800-486-7171
DRAWN BY: MIM
CHECKED BY: G.M.
APPROVED BY: S.M.

Revisions:	Date:	By:
PER CITY COMM	2021-10-11	A.S.

SIMONE B. MAURO, P.E. - No. 30592
GIOVANNI B. MAURO, P.E. - No. 58276
Job No. 21-104
Sheet No. 3 OF 9

900 W. Hamlin Rd - Watermain Profile

SECTION 22 T. 3N., R. 11E., ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN



Location map
NOT TO SCALE

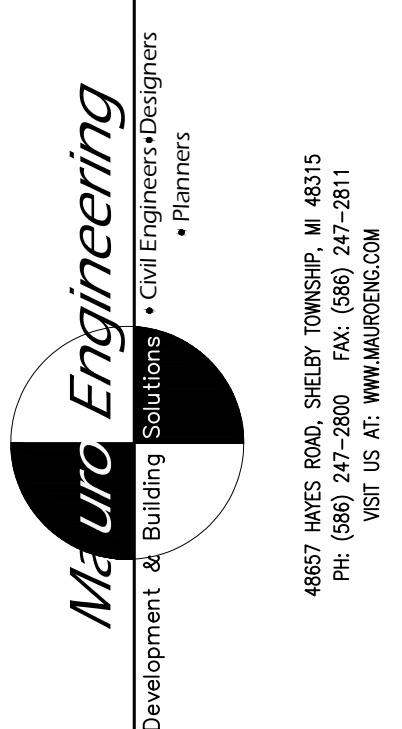
UNAUTHORIZED USE OF THIS DRAWING WITHOUT WRITTEN PERMISSION FROM MAURO ENGINEERING IS STRICTLY PROHIBITED, AND IS A VIOLATION OF U.S. COPYRIGHT LAWS AND WILL BE SUBJECT TO CIVIL DAMAGES AND PROSECUTION

Sheet Index:

- 1) COVER
- 2) EX. CONDITIONS / TOPOGRAPHY PLAN
- 3) SITEPLAN
- 4) DEMOLITION PLAN
- 5) WATERMAIN PROFILE
- 6) PAVING SHEET
- 7) WATERMAIN DETAIL SHEET 1
- 8) WATERMAIN DETAIL SHEET 2
- 9) WATERMAIN SPECIAL DETAILS

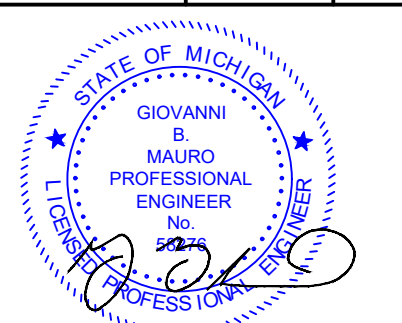
CLIENT: COVENANT CHURCH
PROJECT LOCATION: ROCHESTER HILLS
DATE: 07-12-2021
SCALE:

900 W. HAMLIN RD
WATERMAIN PROFILE



PRELIMINARY CONSTRUCTION AS-BUILT
Drawn By: MIM.
Checked By: G.M.
Approved By: S.M.

Revisions: _____ Date: _____ By: _____
PER CITY COMM 2021-10-11 A.S.

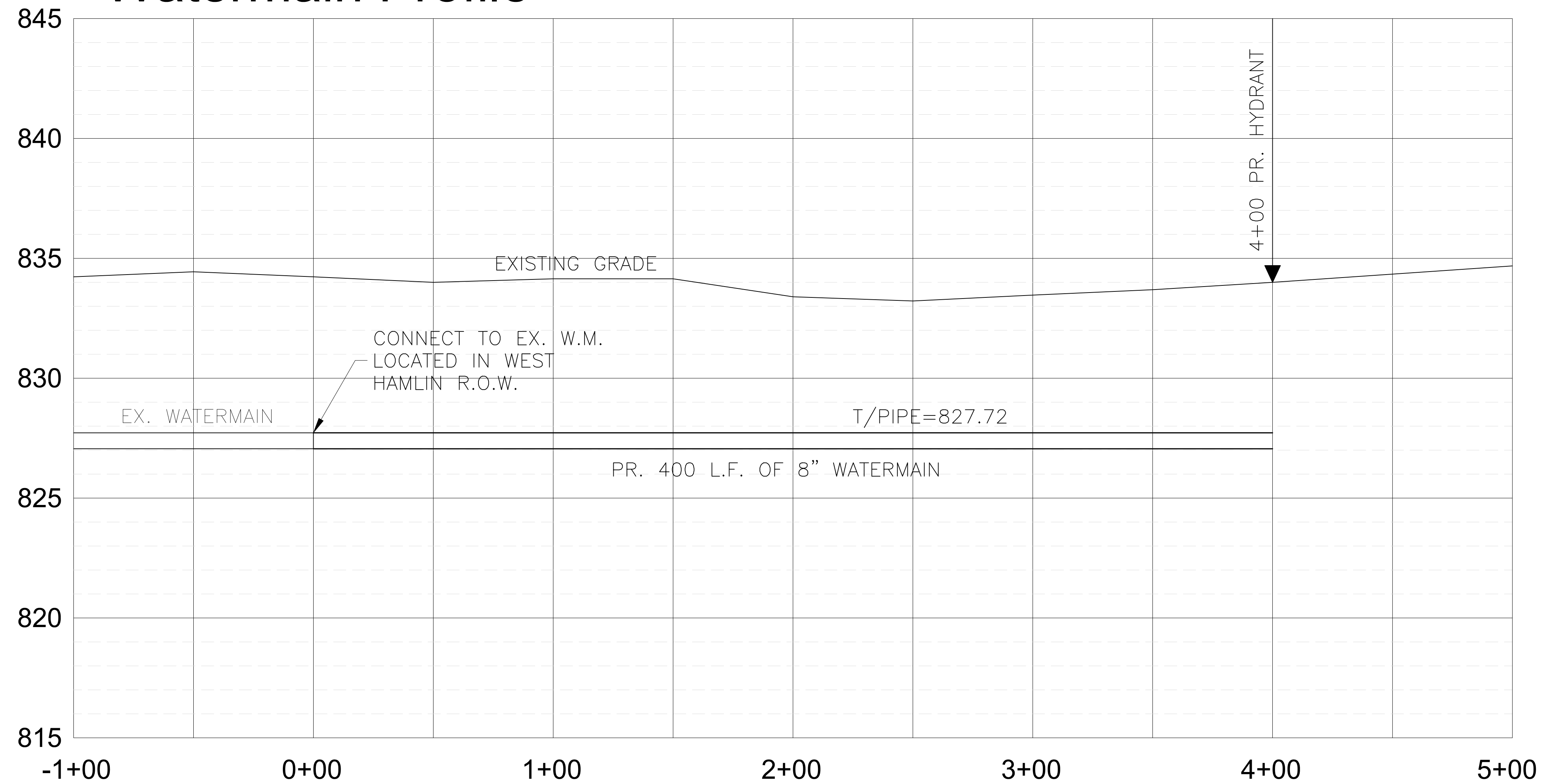


SIMONE B. MAURO, P.E. - No. 30592
GIOVANNI B. MAURO, P.E. - No. 58276

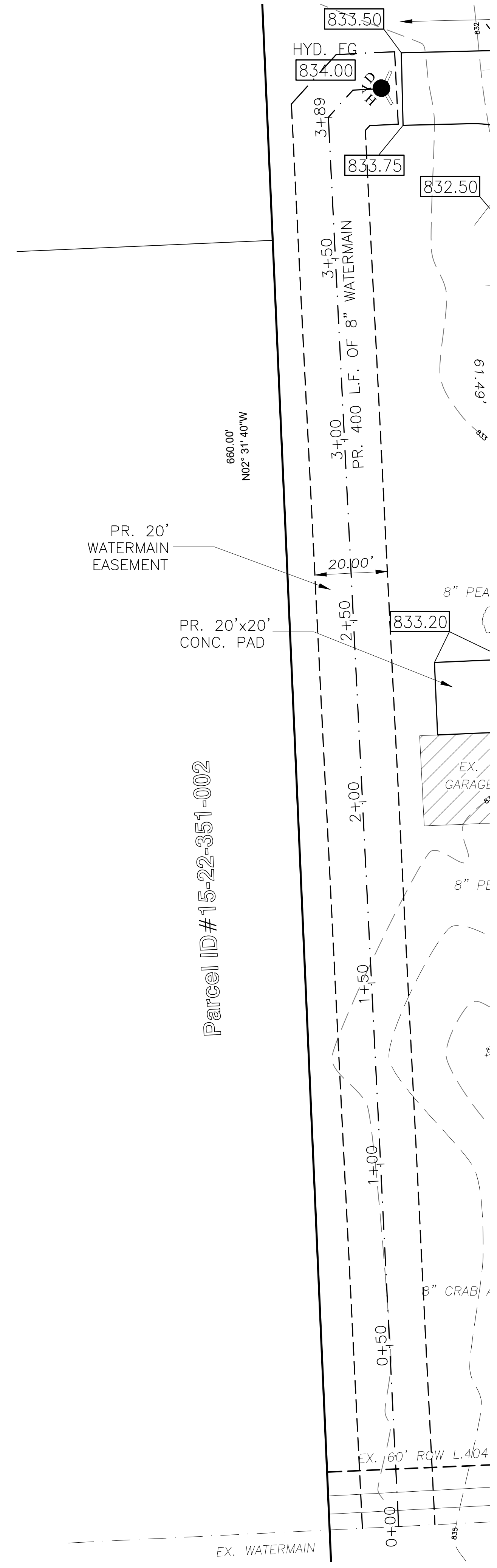
Job No. 21-104

Sheet No. 5 OF 9

Watermain Profile



VERT. SCALE 1"=3'
HORIZ. SCALE 1"=30'

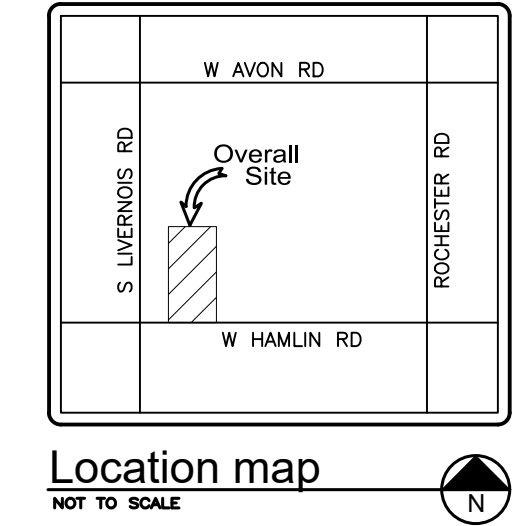
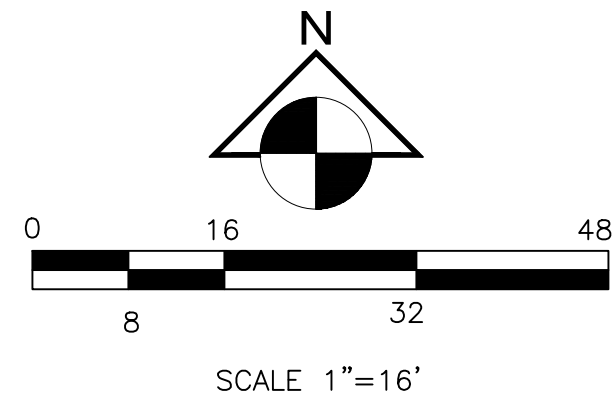


PLAN SCALE 1"=20'

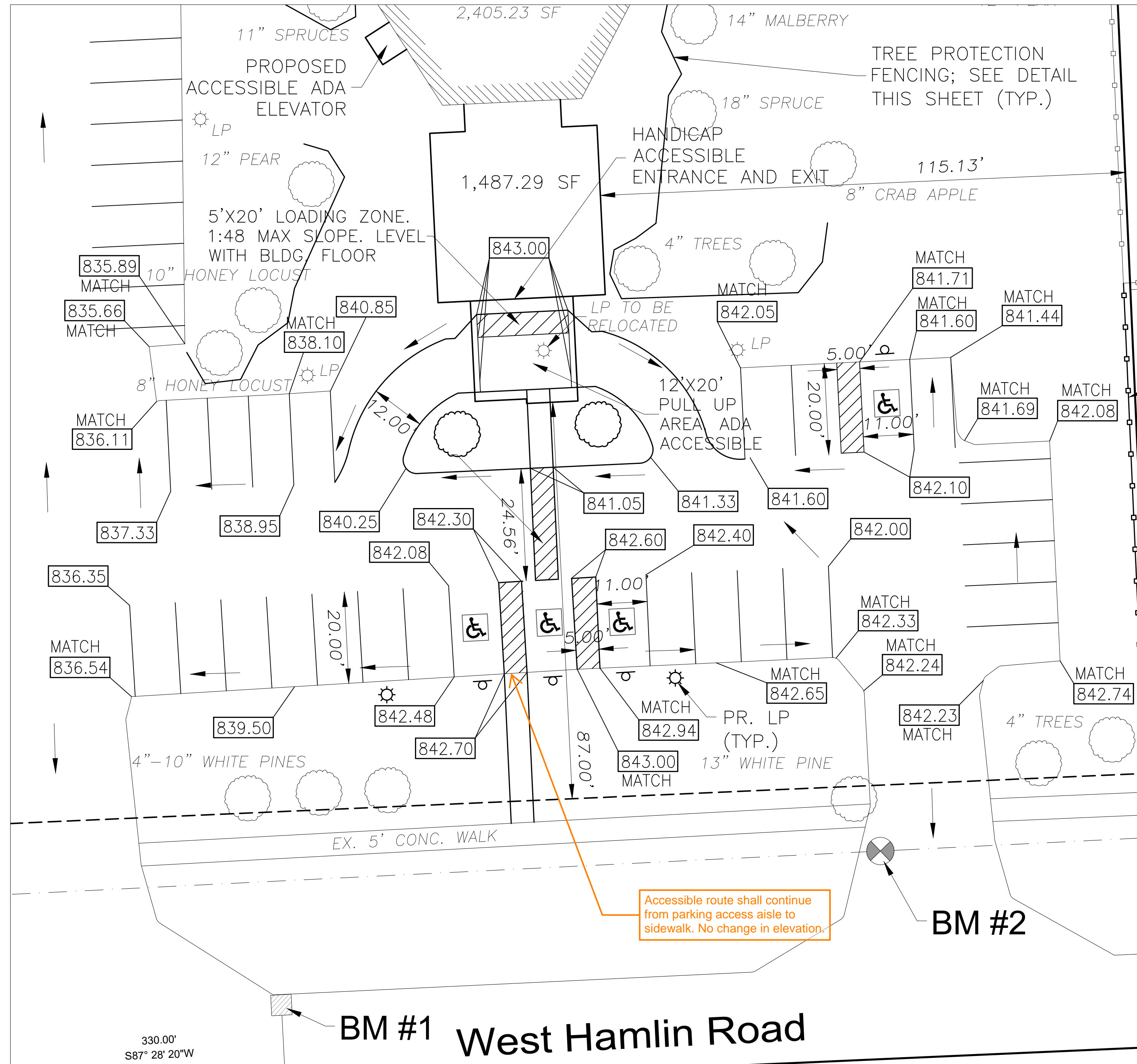
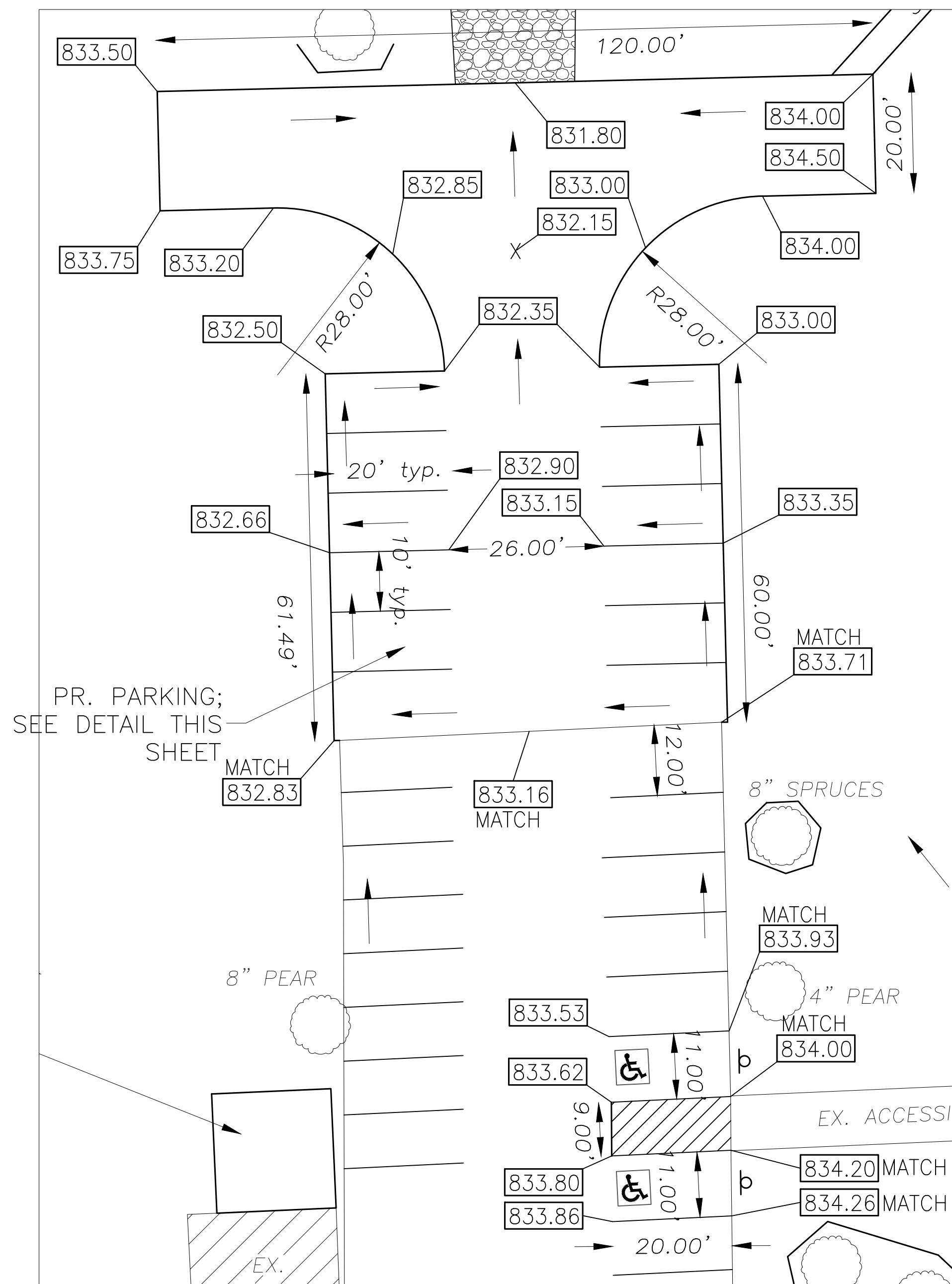
Mauro Engineering
1.) Assumes no responsibility for given house dimensions. Client must verify dimensions prior to set.
2.) This plan shall not be used to set foundations.
3.) Setbacks shown on this plot plan were obtained from the municipality. Since deed restrictions are not supplied by the municipality, the client must verify any special subdivision restrictions.
4.) Lead locations shown on plan are approx. from approved plans. Contractor to field verify all lead locations.
5.) Assumes no responsibility for house placement designed within 0.5' of approved setbacks.
6.) No title work given at the time of survey.

900 W. Hamlin Rd - Paving

SECTION 22 T. 3N., R. 11E., ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN



UNAUTHORIZED USE OF THIS DRAWING WITHOUT WRITTEN PERMISSION FROM MAURO ENGINEERING IS STRICTLY PROHIBITED, AND IS A VIOLATION OF U.S. COPYRIGHT LAWS AND WILL BE SUBJECT TO CIVIL DAMAGES AND PROSECUTION



Onsite Contact:

CLAY BERNER
586-703-0046

Legal Description:

A PARCEL OF LAND IN THE SOUTHWEST 1/4 OF SECTION 22, TOWN 3 NORTH, RANGE 11 EAST, MORE PARTICULARLY DESCRIBED AS:
COMMENSAL AT THE SOUTHWEST CORNER OF SECTION 22; THENCE N87°10'11"E ALONG THE SOUTH LINE OF SECTION 22 330.00 FEET; THENCE N02°31'08"W 60.00 FEET TO A POINT ON THE NORTHERLY LINE OF HAMLIN ROAD (60.00 FEET 1/2 WIDTH) SAID POINT ALSO BEING THE POINT OF BEGINNING; THENCE N02°31'08"W 599.82 FEET; THENCE N87°05'12"E 329.81 FEET; THENCE S02°30'53"E 599.95 FEET TO A POINT ON THE NORTH LINE OF SAID HAMLIN ROAD; THENCE WESTERLY ALONG SAID NORTH LINE S87°10'11"W 329.76 FEET TO THE POINT OF BEGINNING.
CONTAINING 197,827 SQUARE FEET OR 4.54 ACRES OF LAND SUBJECT TO ALL EASEMENTS AND RESTRICTIONS OF RECORD, IF ANY.

Sheet Index:

- 1) COVER
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- 7) WATERMAIN DETAIL SHEET 1
- 8) WATERMAIN DETAIL SHEET 2
- 9) WATERMAIN SPECIAL DETAILS

Description Legend:

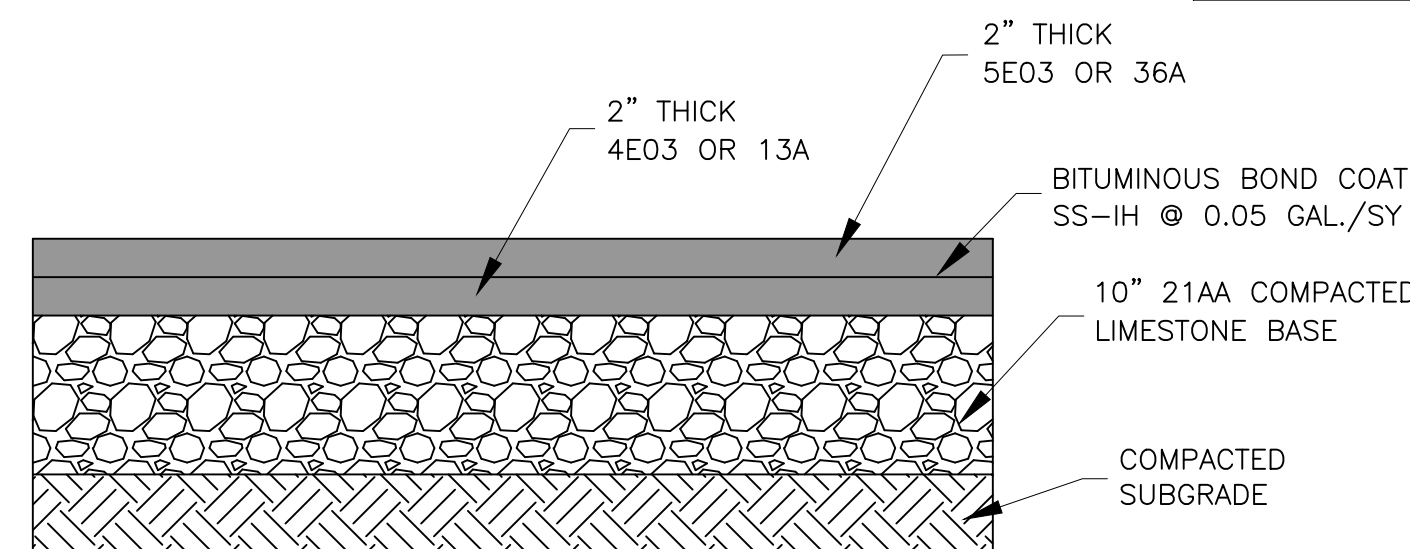
TC	- TOP OF CURB
TW	- TOP OF WALK
TD	- TOP OF DRIVE
ME	- MATCH EXISTING
FS	- FINAL (FINISHED) GRADE
SW	- SWALE
HP	- HIGH POINT
CB	- CATCH BASIN
GFF	- GARAGE FINISH FLOOR
FF	- FIRST FINISH FLOOR
BFF	- BSMT. FINISH FLOOR
SM-MH	- STORM MANHOLE
SAN-MH	- SANITARY MANHOLE
BLDG	- BUILDING
T/WALL	- TOP OF WALL
B/WALL	- BOTTOM OF WALL
GR	- GRADE
TREE	- EXISTING TREE
BRM	- BASEMENT
UNEX	- UNEXCAVATED
EDP	- EDGE OF PAVEMENT
EDG	- EDGE OF GRAVEL
P	- PORCH
W/B	- WATER BOX
IF	- IRON FOUND
MF	- MONUMENT FOUND

EXISTING DESCRIPTION PROPOSED

EXISTING	DESCRIPTION	PROPOSED
---	SILT FENCE	---
---	STORM SEWER	---
---	SANITARY SEWER	---
---	WATER MAIN	---
---	GAS MAIN	---
---	OVERHEAD WIRES	---
---	UNDERGROUND TELEPHONE	---
---	OVERHEAD ELECTRIC	---
---	UNDERGROUND ELECTRIC	---
---	FENCE OR GUARDRAIL	---
---	RIGHT-OF-WAY	---
---	EASEMENT	---
---	PROPERTY LINE	---
---	SETBACK LINE	---
---	ROADWAY CENTERLINE	---
---	CONTOUR	---
---	SANITARY MANHOLE	---
---	STORM MANHOLE	---
---	REAR-YARD CATCH BASIN	---
---	STREET CATCH BASIN	---
---	FIRE HYDRANT	---
---	PIPE REDUCER	---
---	VALVE AND VALVE, VALVE	---
---	FLARED END SECTION	---
---	STREET LIGHT	---
---	GUY WIRE	---
---	UTILITY POLE	---
---	SIGN	---
---	SPOT ELEVATION	---
---	SOIL BORING	---
---	OVERLAND FLOOD ROUTE	---
---	DRAINAGE SLOPE	---
---	WATER'S EDGE OR 1/2 OF DITCH	---
---	TREE, FIR TREE, BUSH	---
---	SECTION CORNER	---
---	CURB AND GUTTER	---
---	CLEANOUT	---
---	TELEPHONE RISER	---
---	CABLE RISER	---
---	ELECTRIC TRANSFORMER	---

Benchmarks:

- 1) PVT. C.B. IN WEST HAMLIN ROAD AS SHOWN PLAN RIM=(837.01) NAVD88
- 2) WATER GATE VALVE IN EAST APPROACH FROM WEST HAMLIN ROAD AS SHOWN ON PLAN RIM=(841.53) NAVD88



Typical Bituminous Parking Section

NOT TO SCALE

Accessible route shall continue from parking access aisle to sidewalk. No change in elevation.

BM #1 West Hamlin Road

- Mauro Engineering**
- 1.) Assumes no responsibility for given house dimensions. Client must verify dimensions prior to construct.
 - 2.) This plan shall not be used to set foundations.
 - 3.) Setbacks shown on this plan were obtained from the municipality. Since deed restrictions are not supplied by the municipality, the client must verify any special subdivision restrictions.
 - 4.) Lead locations shown on plan are approx. from approved plans. Contractor to field verify all lead locations.
 - 5.) Assumes no responsibility for house placement designed within 0.5' of approved setbacks.
 - 6.) No time work given at the time of survey

CLIENT: COVENANT CHURCH

PROJECT LOCATION: ROCHESTER HILLS

DATE: 07-12-2021

SCALE: 1"=16'

900 W. HAMLIN RD
PAVING

3 WORKING DAYS BEFORE YOU DIG CALL MISS DIG 1-800-482-7171

PRELIMINARY CONSTRUCTION AS-BUILT

Drawn By: MIM

Checked By: G.M.

Approved By: S.M.

Revisions:	Date:	By:
PER CITY COMM	2021-10-11	A.S.

SIMONE B. MAURO, P.E. - No. 30592
GIOVANNI B. MAURO, P.E. - No. 58276

Job No. 21-104

Sheet No. 6 OF 9

WEIGHTED
AVERAGE ABV.
GRADE

0.0 (NORTH)
224.0 (SOUTH)
238.5 (EAST)
79.5 (WEST)

542.0 / 208

= 2.6'
AV. ABV. GRADE

∴ LOWER LEVEL
IS A BASEMENT

