



REI ENGINEERING Inc.
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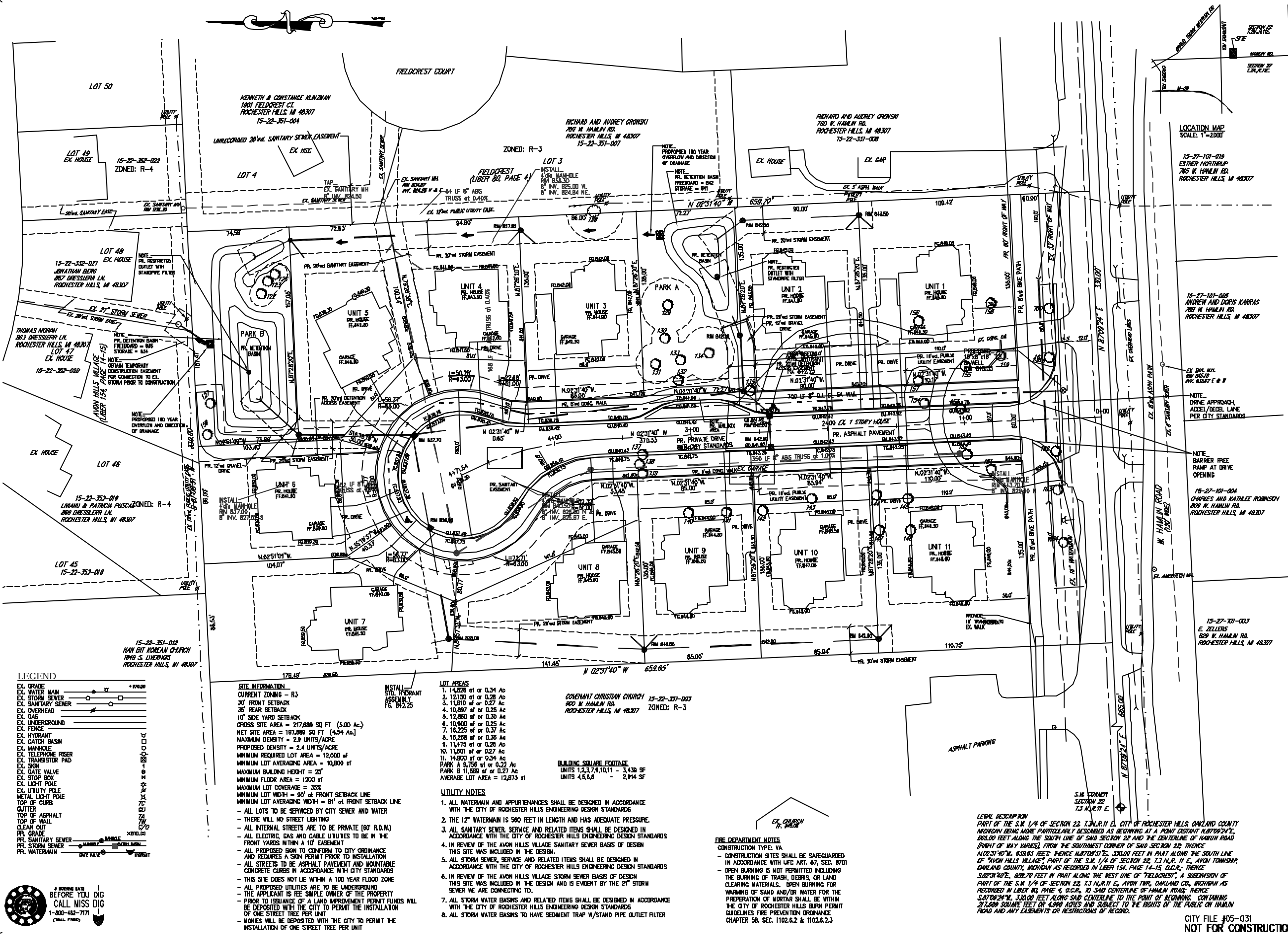
PROPRIETOR:
PAUL & CONCETTA ROSATI
790 WEST HANLIN ROAD
ROCHESTER HILLS, MI 48307

DATE: December 9, 2009
REVISIONS:
Per City Feb. 3, 2008
Per City March 7, 2006

SITE PLAN
PART OF THE S.W. 1/4 OF SECTION 22, T.3 N., R.11 E.,
CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN
CLIENT: PAUL AND CONCETTA ROSATI

SCALE: HORIZ. 1" = 50'
VERT. 1" = 5'
DRAWN: Anna R.
CHECKED: Anna R.
APPROVED: Anna R.
PROJECT NO: 05-124
SHEET NO: GE-1
SEAL

CITY FILE #05-031
NOT FOR CONSTRUCTION



- LEGEND**
- EX. GRADE
 - EX. WATER MAIN
 - EX. STORM SEWER
 - EX. SANITARY SEWER
 - EX. OVERHEAD
 - EX. GAS
 - EX. UNDERGROUND
 - EX. FENCE
 - EX. HYDRANT
 - EX. CATCH BASIN
 - EX. MANHOLE
 - EX. TELEPHONE RISER
 - EX. TRANSFORMER PAD
 - EX. SIGN
 - EX. GATE VALVE
 - EX. STOP BOX
 - EX. LIGHT POLE
 - EX. UTILITY POLE
 - METAL LIGHT POLE
 - TOP OF CURB
 - OUTLET
 - TOP OF ASPHALT
 - TOP OF WALL
 - CLEAN OUT
 - PR. GRADE
 - PR. SANITARY SEWER
 - PR. STORM SEWER
 - PR. WATERMAIN

SITE INFORMATION
CURRENT ZONING - R-3
30' FRONT SETBACK
30' REAR SETBACK
10' SIDE YARD SETBACK
GROSS SITE AREA = 217,890 SQ. FT. (5.00 AC.)
NET SITE AREA = 197,890 SQ. FT. (4.54 AC.)
MAXIMUM DENSITY = 2.9 UNITS/ACRE
PROPOSED DENSITY = 2.4 UNITS/ACRE
MINIMUM REQUIRED LOT AREA = 12,000 sq ft
MINIMUM LOT AVERAGING AREA = 10,000 sq ft
MINIMUM BUILDING HEIGHT = 20'
MINIMUM FLOOR AREA = 1200 sq ft
MINIMUM LOT COVERAGE = 35%
MINIMUM LOT WIDTH = 90' at FRONT SETBACK LINE
MINIMUM LOT AVERAGING WIDTH = 81' at FRONT SETBACK LINE

LOT AREAS

1. 14,228 sq ft or 0.32 Ac
2. 12,130 sq ft or 0.28 Ac
3. 11,810 sq ft or 0.27 Ac
4. 10,287 sq ft or 0.23 Ac
5. 12,850 sq ft or 0.30 Ac
6. 10,900 sq ft or 0.25 Ac
7. 16,225 sq ft or 0.37 Ac
8. 15,258 sq ft or 0.35 Ac
9. 11,473 sq ft or 0.26 Ac
10. 14,901 sq ft or 0.34 Ac
11. 14,800 sq ft or 0.34 Ac
- PARK A 9,756 sq ft or 0.22 Ac
- PARK B 11,859 sq ft or 0.27 Ac
- AVERAGE LOT AREA = 12,873 sq ft

BUILDING SQUARE FOOTAGE
UNITS 1,2,3,7,10,11 - 3,430 SF
UNITS 4,5,6,8 - 2,914 SF

- UTILITY NOTES**
1. ALL WATERMAIN AND APPURTENANCES SHALL BE DESIGNED IN ACCORDANCE WITH THE CITY OF ROCHESTER HILLS ENGINEERING DESIGN STANDARDS
 2. THE 12" WATERMAIN IS 500 FEET IN LENGTH AND HAS ADEQUATE PRESSURE.
 3. ALL SANITARY SEWER, SERVICE AND RELATED ITEMS SHALL BE DESIGNED IN ACCORDANCE WITH THE CITY OF ROCHESTER HILLS ENGINEERING DESIGN STANDARDS
 4. IN REVIEW OF THE AVON HILLS VILLAGE SANITARY SEWER BASIS OF DESIGN THIS SITE WAS INCLUDED IN THE DESIGN.
 5. ALL STORM SEWER, SERVICE AND RELATED ITEMS SHALL BE DESIGNED IN ACCORDANCE WITH THE CITY OF ROCHESTER HILLS ENGINEERING DESIGN STANDARDS
 6. IN REVIEW OF THE AVON HILLS VILLAGE STORM SEWER BASIS OF DESIGN THIS SITE WAS INCLUDED IN THE DESIGN AND IS EVIDENT BY THE 24" STORM SEWER WE ARE CONNECTING TO.
 7. ALL STORM WATER BASINS AND RELATED ITEMS SHALL BE DESIGNED IN ACCORDANCE WITH THE CITY OF ROCHESTER HILLS ENGINEERING DESIGN STANDARDS
 8. ALL STORM WATER BASINS TO HAVE SEDIMENT TRAP W/STAND PIPE OUTLET FILTER

- FIRE DEPARTMENT NOTES**
- CONSTRUCTION TYPE: VA
- CONSTRUCTION SITES SHALL BE SAFEGUARDED IN ACCORDANCE WITH UFC ART. 47, SEC. 8701
 - OPEN BURNING IS NOT PERMITTED INCLUDING THE BURNING OF TRASH, DEBRIS, 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 58, SEC. 1102.6.2 & 1102.6.2.3

LEGAL DESCRIPTION
PART OF THE S.W. 1/4 OF SECTION 22, T.3 N., R.11 E., CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN BEING MORE PARTICULARLY DESCRIBED AS BEGINNING AT A POINT DISTANT N47°24' E, 655.00 FEET ALONG THE SOUTH LINE OF SAID SECTION 22 AND THE CENTERLINE OF HANLIN ROAD (RIGHT OF WAY VARIES), FROM THE SOUTHWEST CORNER OF SAID SECTION 22; THENCE N02°31'40" W, 655.00 FEET; THENCE N47°24' E, 300.00 FEET IN PART ALONG THE SOUTH LINE OF "AVON HILLS VILLAGE", PART OF THE S.W. 1/4 OF SECTION 22, T.3 N., R.11 E., AVON TOWNSHIP, OAKLAND COUNTY, INDIANAS AS RECORDED IN LEGER 154, PAGE 14-15, O.C.R.; THENCE S32°29'40" E, 882.00 FEET IN PART ALONG THE WEST LINE OF "FELDCREST", A SUBDIVISION OF PART OF THE S.W. 1/4 OF SECTION 22, T.3 N., R.11 E., AVON TWP., OAKLAND CO., INDIANAS AS RECORDED IN LEGER 80, PAGE 4, O.C.R.; TO SAID CENTERLINE OF HANLIN ROAD; THENCE S47°04'24" W, 334.00 FEET ALONG SAID CENTERLINE TO THE POINT OF BEGINNING, CONTAINING 21,689 SQUARE FEET OR 4.99 ACRES AND SUBJECT TO THE RIGHTS OF THE PUBLIC ON HANLIN ROAD AND ANY ELEMENTS OR RESTRICTIONS OF RECORD.

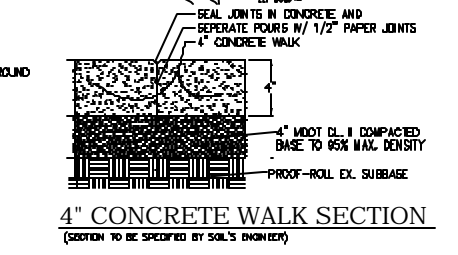
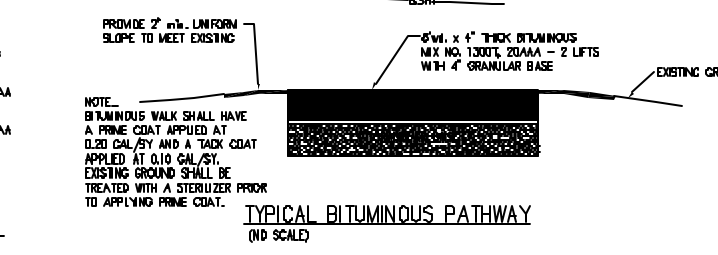
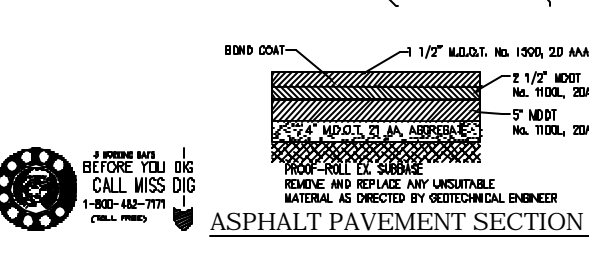
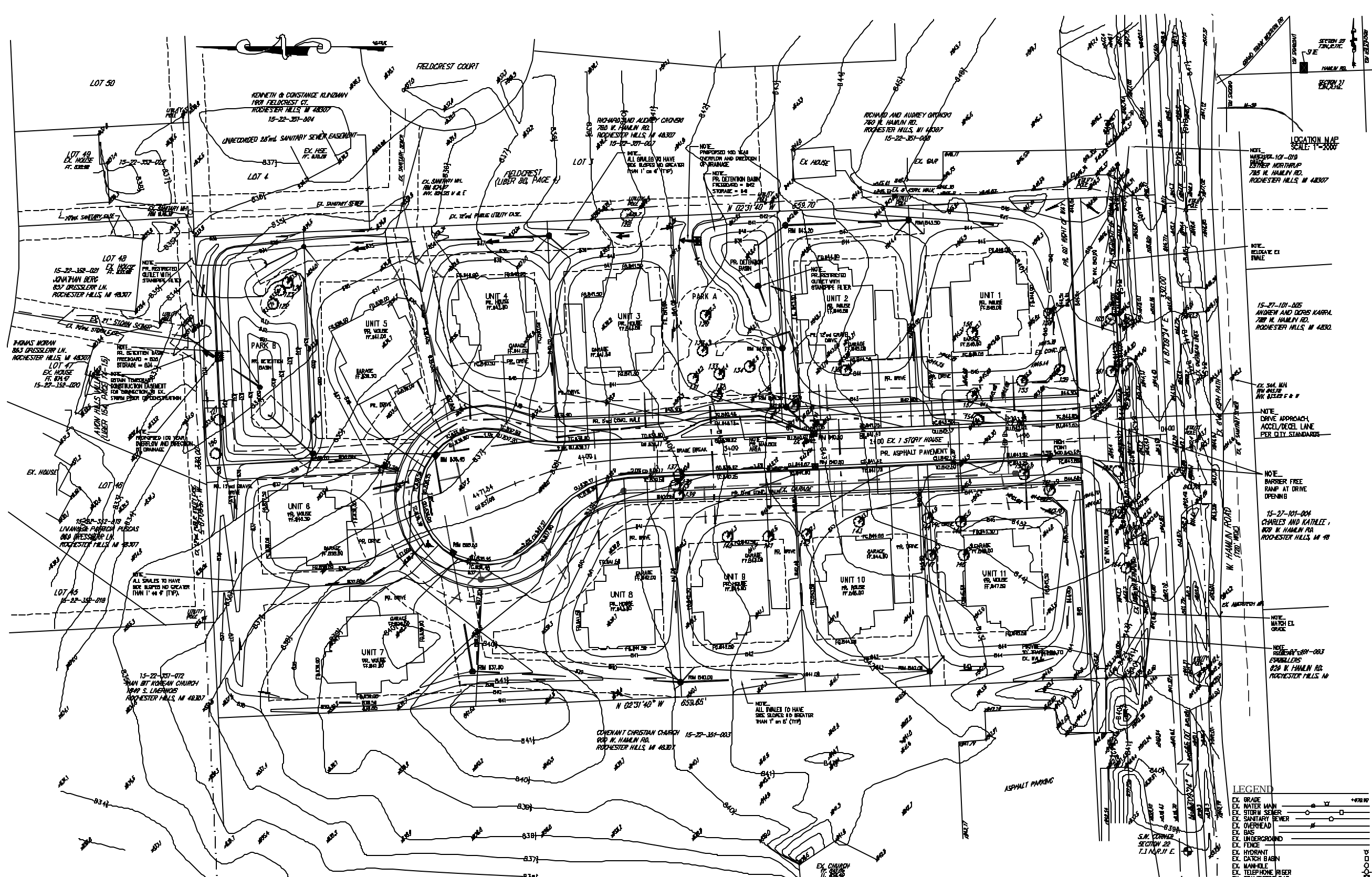


PROPRIETOR:
 PAUL & CONCETTA ROSATI
 780 WEST HANLIN ROAD
 ROCHESTER HILLS, MI 48307

DATE: December 2, 2008
 REVISIONS:
 Per City File # 2008
 Per City March 7, 2009

GRADING PLAN
 PART OF THE S.W. 1/4 OF SECTION 22, T.3 N., R.11 E.,
 CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN
 CLIENT: PAUL AND CONCETTA ROSATI

SCALE:
 HORIZ: 1" = 30'
 VERT: 1" = 3'
 DRAWN: Dave R.
 CHECKED: Dave R.
 APPROVED: Dave R.
 PROJECT NO: 05-124
 SHEET NO: GE-2
 SEAL:
 CITY FILE # 05-031
NOT FOR CONSTRUCTION



LEGAL DESCRIPTION
 PART OF THE S.W. 1/4 OF SECTION 22, T.3 N., R.11 E., CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN BEING MORE PARTICULARLY DESCRIBED AS BEGINNING AT A POINT DISTANT N.87°09'24"E, 682.00 FEET ALONG THE SOUTH LINE OF SAID SECTION 22 AND THE CENTERLINE OF HANLIN ROAD (RIGHT OF WAY VARIES), FROM THE SOUTHWEST CORNER OF SAID SECTION 22; THENCE N.02°31'40"W, 653.70 FEET; THENCE N.87°09'24"E, 309.00 FEET IN PART ALONG THE SOUTH LINE OF "AVON HILLS VILLAGE", PART OF THE S.W. 1/4 OF SECTION 22, T.3 N., R.11 E., AVON TOWNSHIP, OAKLAND COUNTY, MICHIGAN AS RECORDED IN LIEBER REG. PAGE 14-15, 02/02; THENCE S.82°01'42"E, 259.70 FEET IN PART ALONG THE WEST LINE OF "FIELDCREST", A SUBDIVISION OF PART OF THE S.W. 1/4 OF SECTION 22, T.3 N., R.11 E., AVON TWP., OAKLAND CO., MICHIGAN AS RECORDED IN LIEBER REG. PAGE 4, 02/02, TO SAID CENTERLINE OF HANLIN ROAD; THENCE S.87°09'24"E, 139.00 FEET ALONG SAID CENTERLINE TO THE POINT OF BEGINNING, CONTAINING 212,888 SQUARE FEET OR APPROX. ACRES AND SUBJECT TO THE RIGHTS OF THE PUBLIC ON HANLIN ROAD AND ANY EASEMENTS OR RESTRICTIONS OF RECORD.



PROPRIETOR:
 PAUL & CONCETTA ROSATI
 790 WEST HANLIN ROAD
 ROCHESTER HILLS, MI 48307

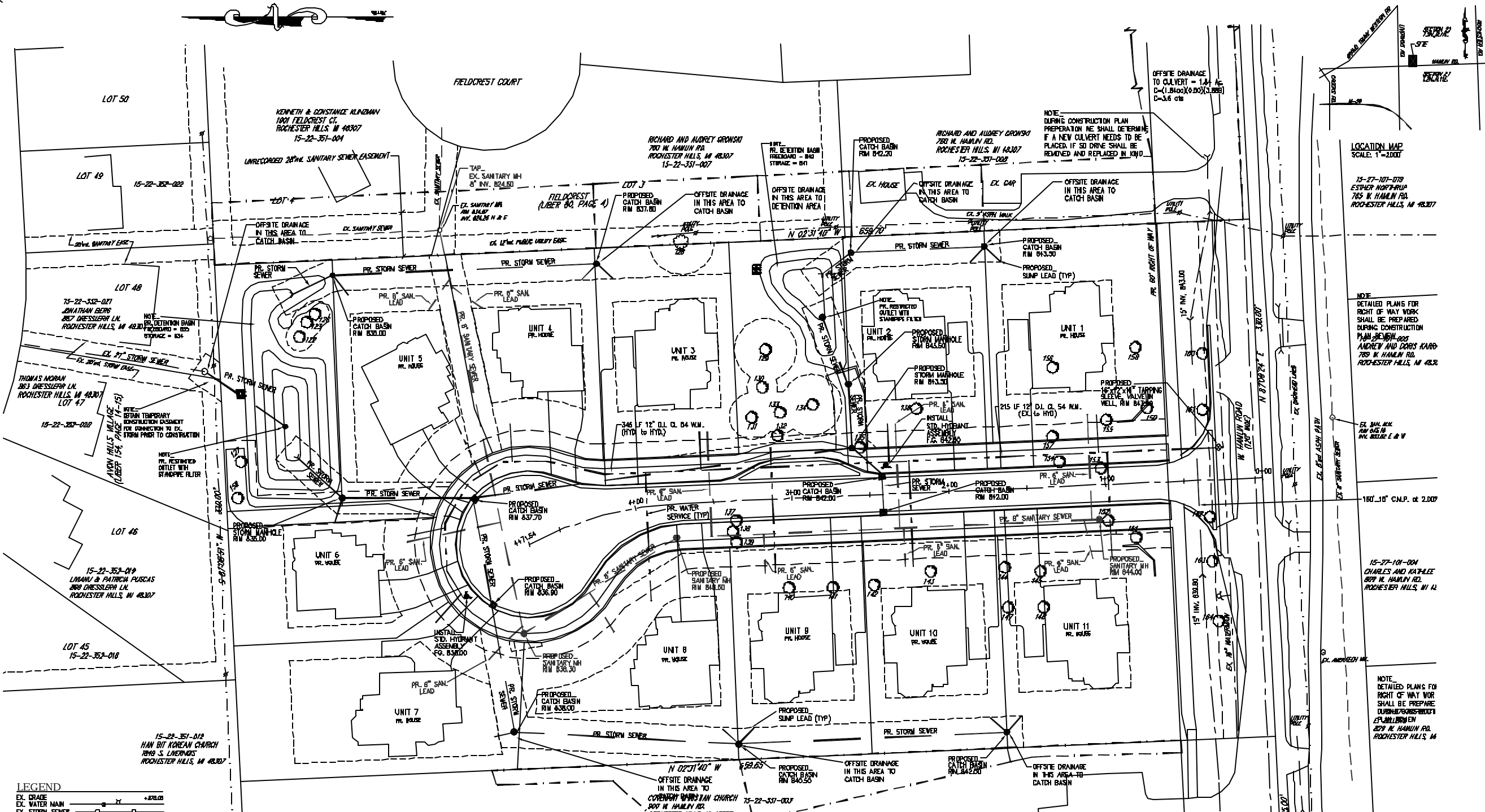
DATE: December 9, 2009
 REVISIONS:
 Per City Feb. 3, 2009
 Per City March 7, 2009

UTILITY PLAN
 PART OF THE S.W. 1/4 OF SECTION 22, T.3 N., R.11 E.,
 CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN

CLIENT: PAUL AND CONCETTA ROSATI

SCALE:
 HORIZ. 1" = 50'
 VERT. 1" = 5'
 DRAWN: Anna R.
 CHECKED: Anna R.
 APPROVED: Anna R.
 PROJECT NO: 05-124
 SHEET NO: GE-3
 SEAL

CITY FILE #05-D31
 NOT FOR CONSTRUCTION



LEGEND

EX. GRADE	---	+0.00
EX. WATER MAIN	---	---
EX. STORM SEWER	---	---
EX. SANITARY SEWER	---	---
EX. OVERHEAD	---	---
EX. GAS	---	---
EX. UNDERGROUND	---	---
EX. FENCE	---	---
EX. HYDRANT	---	---
EX. CATCH BASIN	---	---
EX. MANHOLE	---	---
EX. TELEPHONE RISER	---	---
EX. TRANSFORMER PAD	---	---
EX. SIGN	---	---
EX. GATE VALVE	---	---
EX. STOP BOX	---	---
EX. LIGHT POLE	---	---
EX. UTILITY POLE	---	---
TOP OF CURB	---	---
OUTLET	---	---
TOP OF ASPHALT	---	---
TOP OF WALL	---	---
CLEAN OUT	---	---
PR. GRADE	---	---
PR. SANITARY SEWER	---	---
PR. STORM SEWER	---	---
PR. WATER MAIN	---	---

- UTILITY NOTES**
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DETENTION CALCULATION - POND A

$$Q_p = (0.20)(0.83) = 0.17$$

$$Q_p = \frac{0.17}{0.41} = 0.41$$

$$T = 25 + \frac{10000}{0.41} = 101.0$$

$$V = \frac{(10000)(101.0)}{101.0 + 25} = 6,740$$

$$V = (0.700)(0.49)(0.40) = 0.11$$

$$V = 2,746 \text{ of Required}$$

Volume Provided 3,254 cu ft
 STORAGE ELEV. = 84'

DETENTION CALCULATION - POND B

$$Q_p = (0.20)(3.72) = 0.74$$

$$Q_p = \frac{0.74}{0.49} = 1.51$$

$$T = 25 + \frac{10000}{1.51} = 101.0$$

$$V = \frac{(10000)(101.0)}{101.0 + 25} = 4,740$$

$$V = (0.700)(0.49)(3.72) = 1.03$$

$$V = 12,322 \text{ of Required}$$

Volume Provided 12,034 cu ft
 STORAGE ELEV. = 83'

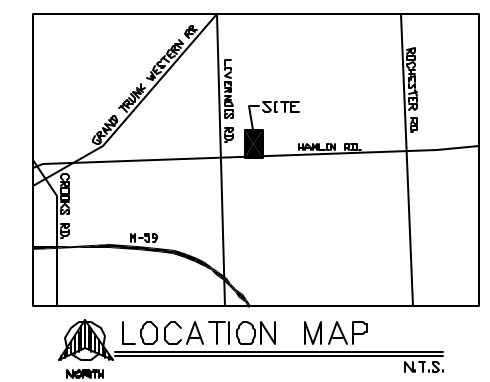
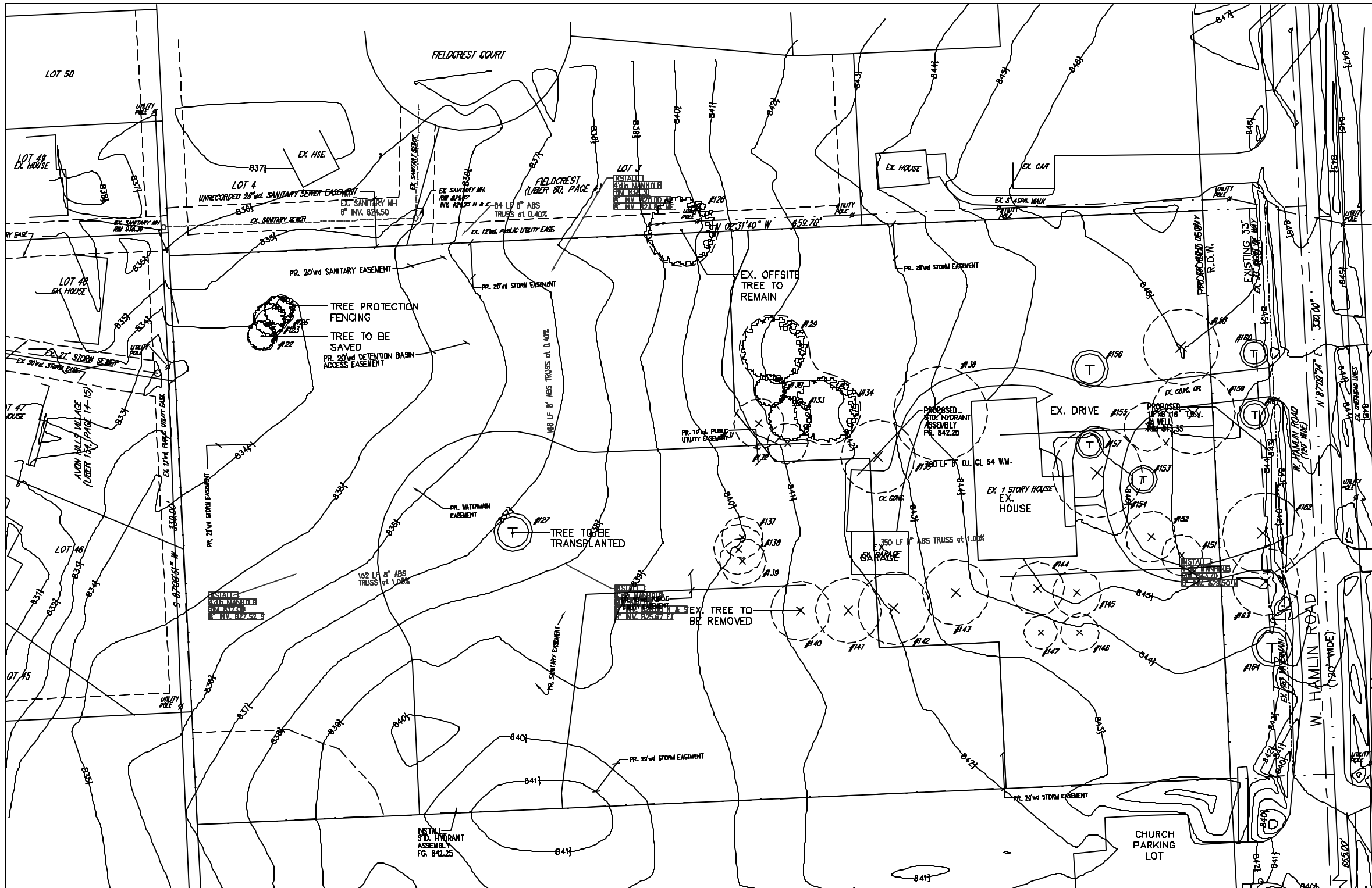
WEIGHTED C

AREA = 4.24 AC
 HOUSES DRIVES WALK & ROAD = 1.57 AC
 DETENTION PONDS = 0.34 AC
 PERVIOUS AREA = 2.65 AC

$$C = \frac{(1.72)(1.0) + (0.80)(1.0) + (0.80)(1.0) + (0.20)(0.20)}{4.24} = 0.49$$

LEGAL DESCRIPTION
 PART OF THE S.W. 1/4 OF SECTION 22, T.3 N., R.11 E., CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN MORE PARTICULARLY DESCRIBED AS BEGINNING AT A POINT IN SP. 1478724 E., 853.00 FEET ALONG THE SOUTH LINE OF SAID SECTION 22 AND THE CENTERLINE OF HANLIN ROAD (RIGHT OF WAY WARE) FROM THE SOUTHWEST CORNER OF SAID SECTION 22; THENCE N. 02°31'40" W., 659.70 FEET; THENCE N. 02°31'40" W., 336.00 FEET IN PART ALONG THE SOUTH LINE OF "AVON HILLS VILLAGE", PART OF THE S.W. 1/4 OF SECTION 22, T.3 N., R.11 E., AVON TOWNSHIP, OAKLAND COUNTY, MICHIGAN AS RECORDED IN LEBER 154, PAGE 14-15, O.C.R.; THENCE S. 02°31'40" E., 659.70 FEET IN PART ALONG THE WEST LINE OF FIELDCREST, A SUBDIVISION OF PART OF THE S.W. 1/4 OF SECTION 22, T.3 N., R.11 E., AVON TWP., OAKLAND CO., MICHIGAN AS RECORDED IN LEBER 84, PAGE 4, O.C.R., TO SAID CENTERLINE OF HANLIN ROAD; THENCE S. 02°31'40" E., 336.00 FEET ALONG SAID CENTERLINE TO THE POINT OF BEGINNING, CONTAINING 17,000 SQUARE FEET OR 4.88 ACRES AND SUBJECT TO THE RIGHTS OF THE PUBLIC ON HANLIN ROAD AND ANY EASEMENTS OR RESTRICTIONS OF RECORD.





TREE LIST

TAB	COMMON NAME	BOTANICAL NAME	SIZE	CANOPY	CONDITION	REGULATED	STATUS
122	WILLOW	SALIX	8'	18'	FAIR	YES	SAVE
123	POPLAR	POPULUS	10'	20'	GOOD	YES	SAVE
124	WILLOW	SALIX	8'	18'	FAIR	YES	SAVE
127	MAPLE	ACER	8'	24'	GOOD	YES	TRANSPLANT
128	ELM	ULMUS	2 - 14'	42'	FAIR	YES	SAVE/OFFSITE
129	MAPLE (TRI-STEM)	ACER	8', 8', 10'	40'	GOOD	YES	SAVE
130	MAPLE	ACER	2 - 8'	20'	POOR	YES	SAVE
131	MAPLE	ACER	8', 8', 10'	30'	GOOD	YES	REMOVE
132	MAPLE	ACER	6', 8'	25'	GOOD	YES	REMOVE
133	MAPLE	ACER	6', 8'	27'	GOOD	YES	SAVE
134	MAPLE	ACER	14'	40'	GOOD	YES	SAVE
135	MAPLE	ACER	20'	45'	GOOD	YES	REMOVE
136	MAPLE	ACER	38'	58'	GOOD	YES	REMOVE
137	POPLAR	POPULUS	10'	25'	GOOD	YES	REMOVE
138	POPLAR	POPULUS	12'	30'	GOOD	YES	REMOVE
139	POPLAR	POPULUS	10'	25'	GOOD	YES	REMOVE
140	WILLOW	SALIX	2 - 12'	36'	GOOD	YES	REMOVE
141	POPLAR	POPULUS	18'	38'	GOOD	YES	REMOVE
142	WILLOW	SALIX	14'	43'	GOOD	YES	REMOVE
143	MAPLE	ACER	24'	40'	GOOD	YES	REMOVE
144	MAPLE	ACER	24'	33'	GOOD	YES	REMOVE
145	MAPLE	ACER	28'	29'	GOOD	YES	REMOVE
146	CHERRY	PRUNUS	15'	23'	FAIR	YES	REMOVE
147	CHERRY	PRUNUS	12'	20'	POOR	YES	REMOVE
151	MAPLE	ACER	12'	25'	GOOD	YES	REMOVE
152	PINE	PINUS	20'	33'	GOOD	YES	REMOVE
153	PINE	PINUS	10'	20'	GOOD	YES	TRANSPLANT
154	MAPLE	ACER	28'	54'	GOOD	YES	REMOVE
155	MAPLE	ACER	18'	30'	FAIR	YES	REMOVE
156	PLUM	PRUNUS	10'	20'	GOOD	YES	TRANSPLANT
157	REDWOOD	DEQUIS	8'	20'	GOOD	YES	TRANSPLANT
158	MAPLE	ACER	15'	48'	DEAD	YES	REMOVE
159	MAPLE	ACER	24'	50'	GOOD	YES	REMOVE
160	MULBERRY	MORUS	8'	16'	GOOD	YES	TRANSPLANT
161	MULBERRY	MORUS	8'	18'	GOOD	YES	TRANSPLANT
162	MAPLE	ACER	28'	48'	GOOD	YES	REMOVE
163	MAPLE	ACER	20'	40'	GOOD	YES	REMOVE
164	MAPLE	ACER	8'	25'	FAIR	YES	TRANSPLANT

NOTES AND TREE DATA

ALL TREES BEING RETAINED WILL BE IDENTIFIED BY AN APPROVED METHOD.

WHEN PROTECTIVE BARRIERS ARE NECESSARY, THEY WILL BE ERRECTED BEFORE WORK STARTS.

THE REPLACEMENT TREES WILL CONFORM TO THE GUIDELINES ESTABLISHED IN THE MOST RECENT EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK, AND MUST BE APPROVED BY THE CITY OF ROCHESTER HILLS LANDSCAPE ARCHITECT.

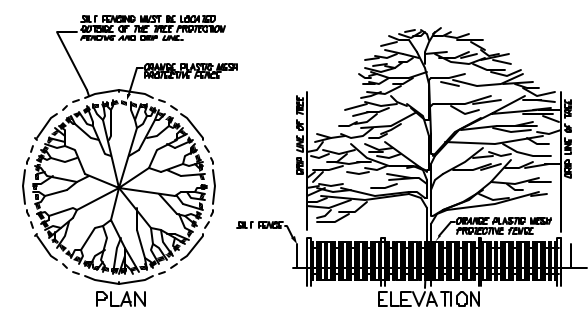
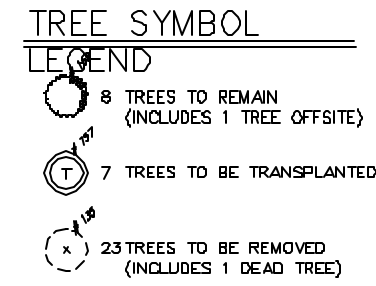
ALL REPLACEMENT AND RELOCATED TREES MUST BE STAKED, FERTILIZED, AND MULCHED, AND SHALL BE GUARANTEED BY THE TREE REMOVAL PERMIT HOLDER TO EXHIBIT A NORMAL GROWTH CYCLE FOR TWO (2) YEARS FROM APPROVAL OF THE CITY OF ROCHESTER HILLS LANDSCAPE ARCHITECT.

TREE DATA

TOTAL TREES SURVEYED: 38
 MINUS 1 TREE OFF SITE: -1
 MINUS 1 DEAD TREE: -1
 TOTAL NUMBER OF REGULATED TREES: 36

36 x 37% = 14 PRESERVED TREES REQUIRED TO MEET THE REQUIREMENTS OF THE TREE CONSERVATIONS ORDINANCE

TOTAL TREES PRESERVED: 14 (38.8%)



- TREE PROTECTION NOTES:**
- IF A TREE DETERMINED FOR PRESERVATION IS DAMAGED DURING CONSTRUCTION OPERATIONS, A FINE OF \$250.00 PER DAMAGED INCH OF TREE DAMAGED SHALL BE ASSESSED. PAYMENT OF THIS FINE IS DUE PRIOR TO ANY RESTORATION OR REPAIR WORK.
 - APPROVED TREE PROTECTION SHALL BE INSTALLED PRIOR TO THE START OF CONSTRUCTION ACTIVITIES, AND SHALL REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETED. THE FORESTRY DIVISION SHALL BE NOTIFIED AFTER TREE PROTECTION IS IN PLACE PRIOR TO CONSTRUCTION ACTIVITIES, INCLUDING DELIVERY OF MATERIALS.
 - SILT FENCING IS TO BE LOCATED ON THE CONSTRUCTION SIDE OF THE TREE PROTECTIVE FENCING. SILT FENCING FENCING IS NOT TO BE LOCATED WITHIN THE CORNER OF ANY TREE DESIGNATED FOR PRESERVATION.
 - NO PERSON MAY ENGAGE IN ANY ACTIVITY WITHIN THE CORNER OF ANY TREE DESIGNATED TO REMAIN, INCLUDING BUT NOT LIMITED TO PLACING DEBRIS, BUILDING MATERIALS, CONSTRUCTION EQUIPMENT, OR SOIL DEPOSITS WITHIN THE CORNER.
 - BRANCHES MAY NOT OCCUR WITHIN THE CORNER OF PROTECTED TREES.
 - DURING CONSTRUCTION NO PERSON SHALL ATTACH ANY DEVICE OR LINE TO ANY REMAINING TREE.
 - ALL UTILITY SERVICE LOCATIONS MUST INCLUDE IDENTIFICATION TO THE REGULATED TREE PROTECTIVE FENCE. ALL IDENTIFICATION SHALL BE LOCATED OUTSIDE OF THE PROTECTIVE FENCE.
 - STAKES SHALL BE PLACED TO AVOID THE AREA WITHIN THE CORNER OF PROTECTED TREES.
 - IF TREE PROTECTION CANNOT BE MAINTAINED FOR A TREE THROUGHOUT THE CONSTRUCTION PERIOD, REPLACEMENT OF THAT TREE MAY BE REQUIRED PRIOR TO THE BEGINNING OF OCCUPANCY.
 - ANY OFFSITE TREES WITH THE POTENTIAL OF BEING DAMAGED BY THE DEVELOPMENT OF THIS PARCEL MUST ALSO BE PROTECTED WITH TREE PROTECTIVE FENCING.
 - ALL TREES TO BE TRANSPLANTED MUST BE PROTECTED WITH TREE PROTECTIVE FENCING DURING LAND CLEARING AND GRADING PRIOR TO TRANSPLANTING, AND AGAIN IMMEDIATELY AFTER TRANSPLANTING.

NOT TO BE USED AS CONSTRUCTION DRAWINGS

NOTE: ALL DIMENSIONS ARE LANDSCAPE ARCHITECT'S ESTIMATE. THESE QUANTITIES ARE NOT TO BE TAKEN AS DEFINING OR LIMITING THE AMOUNT OF WORK TO BE DONE UNDER THE CONTRACT. THE CONTRACTOR IS RESPONSIBLE FOR HIS OWN ESTIMATES. ALL DIMENSIONS ARE TO BE REPORTED TO THE LANDSCAPE ARCHITECT'S OFFICE IMMEDIATELY.

ALL DESIGN, CONCEPT, DETAILS, ETC. ARE THE PROPERTY OF JAMES C. SCOTT & ASSOCIATES, INC., AND MAY NOT BE REPRODUCED, PHOTOGRAPHED, OR REPRODUCED WITHOUT THE WRITTEN CONSENT OF JAMES C. SCOTT & ASSOCIATES, INC. COPYRIGHT 2008

EXISTING SITE CONDITIONS/
TREE SURVEY

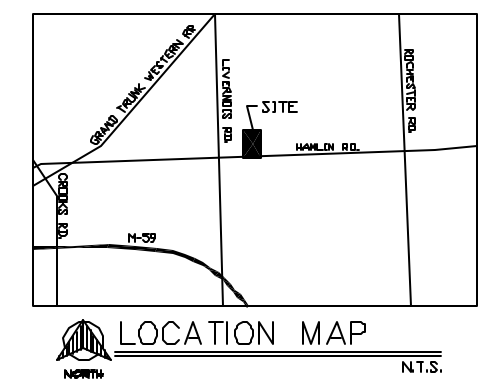
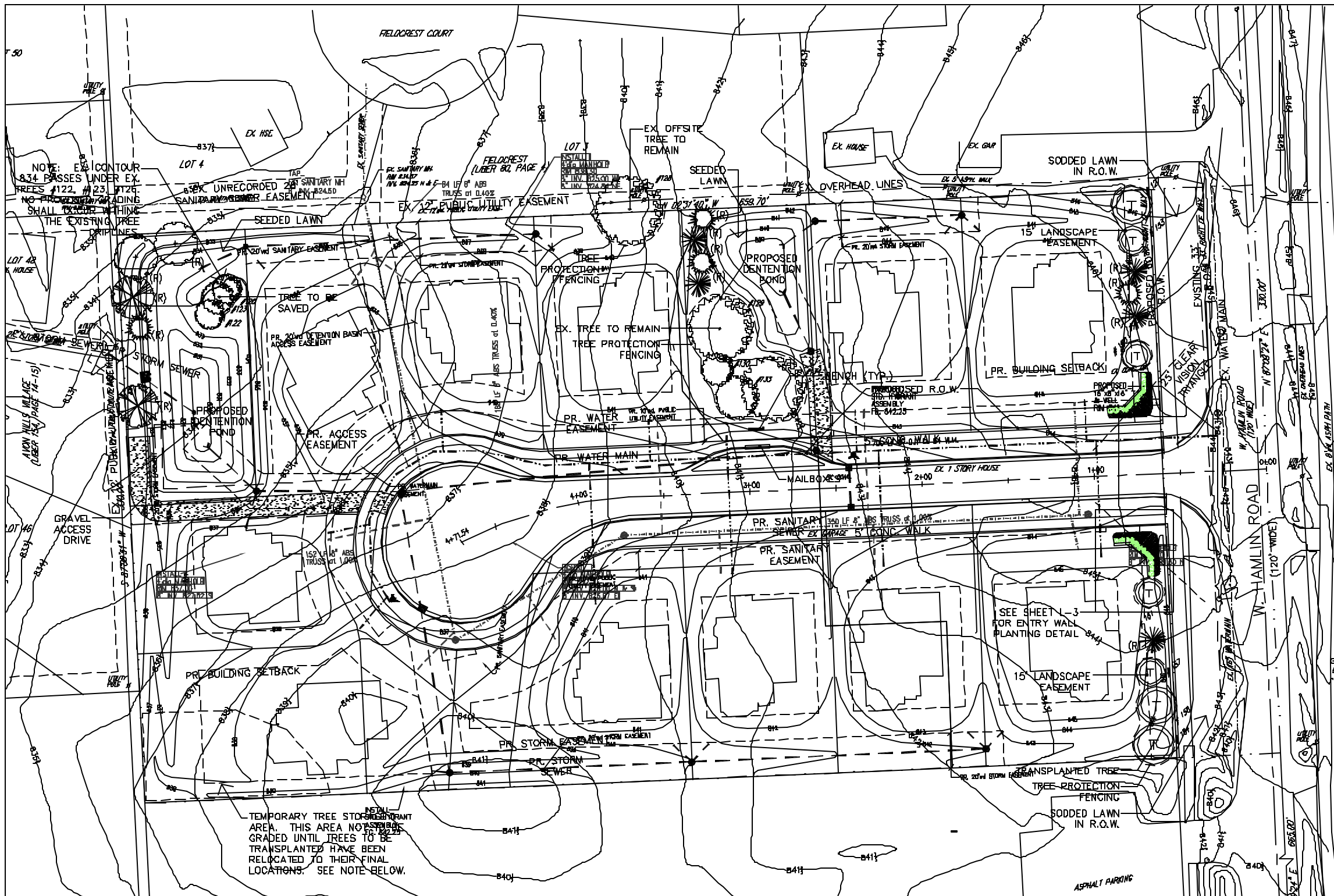
790 W. HAMLIN ROAD,
ROCHESTER HILLS, MICHIGAN

THE LEGACY
CONDO DEVELOPMENT

JAMES C. SCOTT & ASSOCIATES

landscape architects
300 e. long lake rd. ste. 120, bloomfield hills, mi 48304
(248) 646-6564 (f) 248-646-4838

1/25/08
12/21/08
2/15/09
3/17/09
8/18/08
1"=30' FT
CITY FILE #05-031



TREE SYMBOL LEGEND

- 2 GREENSPIRE LINDEN
Tilia cordata "Greenspire"
3" cal., B&B, Even Habit, Spaced as Shown
- 2 SWAMP WHITE OAK
Quercus bicolor
3" cal., B&B, Even Habit, Spaced as Shown
- 4 NORWAY SPRUCE
Picea abies
10' Ht., B&B, Even Habit, Spaced as Shown
- 4 WHITE PINE
Pinus strobus
10' Ht., B&B, Even Habit, Spaced as Shown
- 8 EXISTING TREES TO REMAIN
(INCLUDES 1 TREE OFFSITE)
- 7 EXISTING TRANSPLANTED TREES

NOTE: "(R)" ON PLAN DENOTES TREE DESIGNATED AS A REPLACEMENT TREE

TREE PRESERVATION CALCULATIONS

TOTAL NUMBER OF TREES SURVEYED:	38
MINUS 1 TREE OFF SITE:	-1
MINUS 1 DEAD TREE:	-1
TOTAL NUMBER OF REGULATED TREES ON SITE:	36
TOTAL REGULATED TREES TO REMAIN ON SITE:	7
TOTAL REGULATED TREES REMOVED:	22
TOTAL TREES REQUIRED TO BE PRESERVED (37%):	14
TOTAL TREES PRESERVED ON SITE:	14 (38.0%)

TREE REPLACEMENT DATA

DECIDUOUS TREES (3" CAL., WORTH 2 CREDITS):	4 (x 2 = 8)
EVERGREEN TREES (3" CAL., WORTH 2 CREDITS):	8 (x 2 = 16)
TOTAL CREDITS PROVIDED:	24

TREE TRANSPLANTING / ON SITE STORAGE NOTE

TREES TO BE TRANSPLANTED SHALL BE SPADED AND STORED ON SITE UNTIL GRADING OF THEIR FINAL LOCATION HAS BEEN COMPLETED. TREES TO BE TRANSPLANTED SHALL BE STORED IN A TEMPORARY STORAGE AREA AS DESIGNATED ON THIS SHEET. GRADING OF DESIGNATED STORAGE AREA SHALL NOT COMMENCE UNTIL AFTER TREES TO BE TRANSPLANTED HAVE BEEN RELOCATED TO THEIR FINAL LOCATIONS AND STORAGE IS NO LONGER NECESSARY. THE DESIGNATED STORAGE AREA SHALL BE PROTECTED WITH TREE PROTECTION FENCING DURING THE ENTIRE STORAGE PERIOD.

TREE PROTECTION NOTES

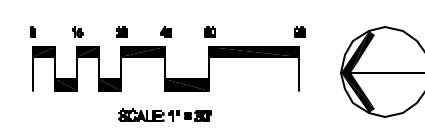
- IF A TREE DESIGNATED FOR PRESERVATION IS DAMAGED DURING GRADING OR CONSTRUCTION OPERATIONS, A FINE OF \$122.00 PER CALIPER INCH OF TREE DAMAGED WILL BE ISSUED. PAYMENT OF THIS FINE IS DUE PRIOR TO ANY CERTIFICATE OF OCCUPANCY BEING ISSUED.
- ANY OFFSITE TREES WITH THE POTENTIAL OF BEING DAMAGED BY THE DEVELOPMENT OF THIS PARCEL MUST ALSO BE PROTECTED WITH TREE PROTECTION FENCING.
- SILT FENCING IS TO BE LOCATED ON THE CONSTRUCTION SIDE OF THE TREE PROTECTIVE FENCING. SILT FENCING IS NOT TO BE LOCATED WITHIN THE DRIPLINE OF ANY TREE DESIGNATED FOR PRESERVATION.
- ALL TREES TO BE TRANSPLANTED MUST BE PROTECTED WITH TREE PROTECTION FENCING DURING LAND CLEARING AND GRADING, PRIOR TO TRANSPLANTING, IMMEDIATELY AFTER TRANSPLANTING, AND THROUGHOUT THE ENTIRE CONSTRUCTION PERIOD.
- ALL TRANSPLANTED TREES SHALL BE GUARANTEED FOR A PERIOD NO LESS THAN 2 YEARS. ANY TRANSPLANTED TREE NOT SURVIVING 2 YEARS AFTER TRANSPLANTING SHALL BE REPLACED ON AN INCH FOR INCH BASIS.

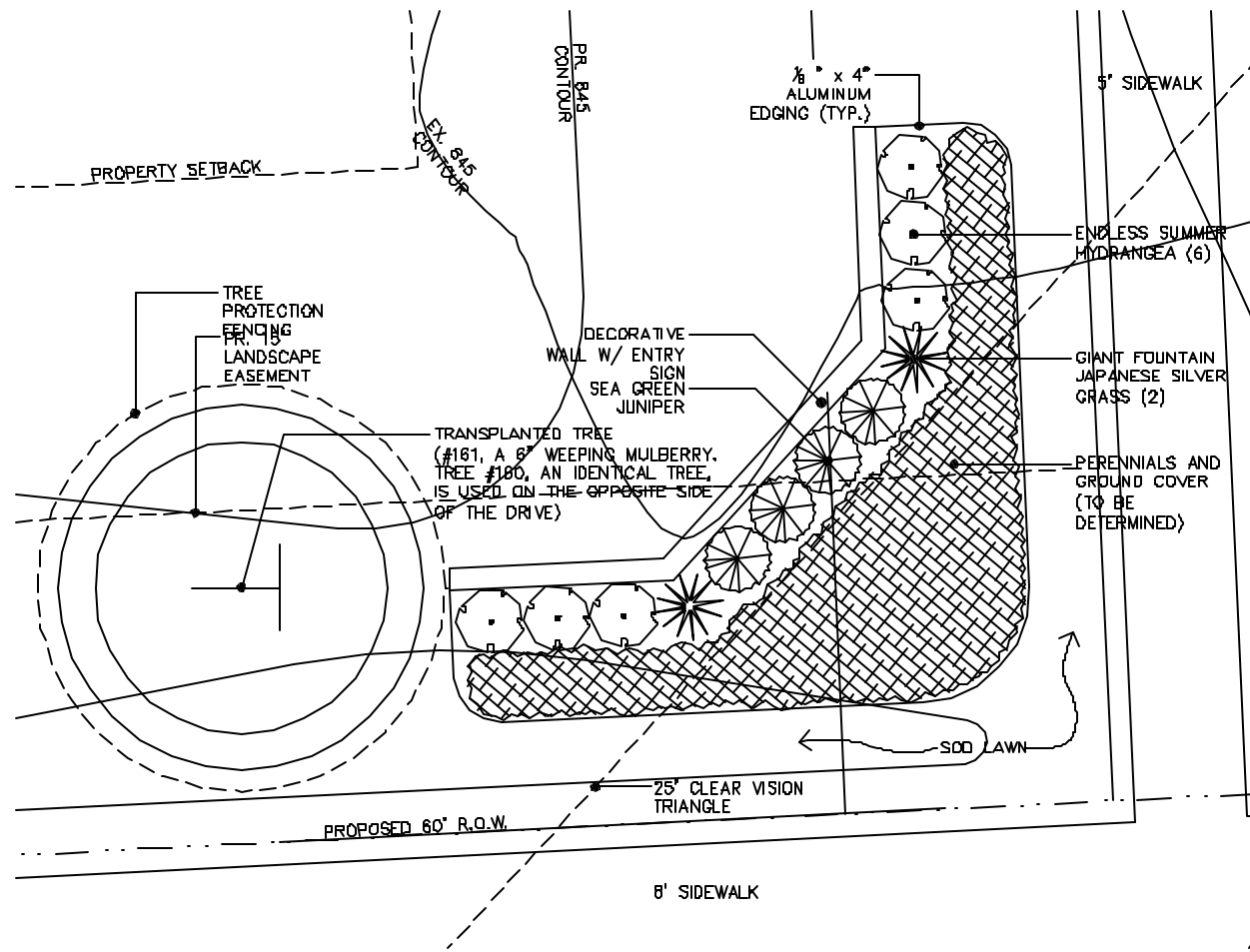
ADDITIONAL NOTES

- ALL LANDSCAPE BEDS TO BE IRRIGATED BY AN AUTOMATIC IRRIGATION SYSTEM. IRRIGATION SYSTEM SHALL BE INSTALLED AFTER COMPLETION OF ALL GRADING AND CONSTRUCTION, PRIOR TO CERTIFICATE OF OCCUPANCY.
- ALL LANDSCAPE BEDS TO BE DRESSED WITH SHREDDED BARK MULCH TO A DEPTH OF 4 INCHES.
- ALL LANDSCAPE BEDS TO BE EDGED WITH 1/2" x 4" ALUMINUM EDGING.
- THE APPLICANT WILL BE REQUIRED TO PROVIDE FUNDS TO THE CITY (\$200 PER LOT) FOR A TREE PLANTING ESCROW ACCOUNT THAT FORESTRY WILL UTILIZE TO PLANT 1 TREE PER LOT AFTER THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
- IT SHALL BE REQUIRED TO OBTAIN A SIGN PERMIT FOR ALL PROPOSED SIGNAGE PRIOR TO INSTALLATION.

NOT TO BE USED AS CONSTRUCTION DRAWINGS

NOTE: ALL QUANTITIES ARE LANDSCAPE ARCHITECT'S ESTIMATES. THESE QUANTITIES ARE NOT TO BE TAKEN AS DEFINING OR LIMITING THE AMOUNT OF WORK TO BE DONE UNDER THIS CONTRACT. THE CONTRACTOR IS RESPONSIBLE FOR HIS OWN SURVEYING. ALL DIMENSIONS ARE TO BE REPORTED TO THE LANDSCAPE ARCHITECT'S OFFICE IMMEDIATELY. ALL DESIGN, CONCEPT, DETAIL, ETC. ARE THE PROPERTY OF JAMES C. SCOTT & ASSOCIATES, INC. AND MAY NOT BE REPRODUCED, PHOTOCOPIED, OR OTHERWISE USED WITHOUT THE WRITTEN CONSENT OF JAMES C. SCOTT & ASSOCIATES, INC. COPYRIGHT 2008





ENTRY PLANTING DETAIL

NOTE: MIRROR ENTRY DETAIL FOR OPPOSITE SIDE OF DRIVE



LANDSCAPE NOTES

1. PRIOR TO THE RELEASE OF ANY PERFORMANCE BOND, THE CITY OF ROCHESTER HILLS LANDSCAPE ARCHITECT MUST INSPECT ALL LANDSCAPE PLANTINGS INCLUDING, BUT NOT LIMITED TO, EXISTING TREES, REPLACEMENT TREES, BUFFER PLANTINGS, AND PARKING LOT ISLANDS. THE RIGHT-OF-WAY WILL BE INSPECTED BY THE FORESTRY DIVISION TO IDENTIFY ANY PLANTINGS, NEW OR EXISTING, THAT POSE A HAZARD TO THE SAFE USE OF THE RIGHT-OF-WAY. FORESTRY MAY REQUIRE THE DEVELOPER TO REMOVE, AND POSSIBLY REPLACE, ANY SUCH TREES.

2. PRIOR TO THE RELEASE OF THE PERFORMANCE BOND, THE CITY OF ROCHESTER HILLS FORESTRY DIVISION NEEDS TO INSPECT ALL TREES, EXISTING OR PLANTED, TO IDENTIFY ANY THAT POSE A HAZARD TO THE SAFE USE OF THE PUBLIC RIGHT-OF-WAY. FORESTRY MAY REQUIRE THE DEVELOPER TO REMOVE, AND POSSIBLY REPLACE, ANY SUCH TREES.

3. ALL TREES AND SHRUBS MUST BE PLANTED AT LEAST 10' FROM THE EDGE OF A PUBLIC ROADWAY. SHADE TREES AND SHRUBS MUST BE PLANTED AT LEAST 5' FROM THE EDGE OF A PUBLIC WALKWAY. EVERGREEN AND ORNAMENTAL TREES MUST BE PLANTED AT LEAST 10' FROM THE EDGE OF A PUBLIC WALKWAY. ALL TREES AND SHRUBS MUST BE PLANTED AT LEAST 10' FROM ANY FIRE HYDRANT. SHADE AND EVERGREEN TREES MUST BE PLANTED AT LEAST 15' FROM THE NEAREST OVERHEAD WIRE AND AT LEAST 10' FROM THE NEAREST UNDERGROUND UTILITY.

4. NO TREE OR SHRUB MAY BE PLANTED WITHIN THE TRIANGULAR AREA FORMED AT THE INTERSECTION OF ANY STREET RIGHT-OF-WAY AT A DISTANCE OF 25' FROM THEIR POINT OF INTERSECTION. NO TREE OR SHRUB MAY BE PLANTED IN THE TRIANGULAR AREA FORMED AT THE INTERSECTION OF ANY DRIVEWAY WITH A PUBLIC SIDEWALK AT A DISTANCE ALONG EACH LINE OF 15' FROM THEIR POINT OF INTERSECTION.

5. PRIOR APPROVAL IS REQUIRED TO PLANT ANY TREE OR SHRUB IN THE PUBLIC RIGHT-OF-WAY.

6. NO SUBSTITUTIONS OR CHANGES OF LOCATION OR PLANT TYPES SHALL BE MADE WITHOUT THE APPROVAL OF THE DEVELOPER AND THE CITY OF ROCHESTER HILLS LANDSCAPE ARCHITECT.

7. THE DEVELOPER AND/OR THE CITY OF ROCHESTER HILLS LANDSCAPE ARCHITECT SHALL HAVE THE RIGHT, AT ANY STAGE OF THE INSTALLATION, TO REJECT ANY WORK OR MATERIAL THAT DOES NOT MEET THE REQUIREMENTS OF THE PLANS OR SPECIFICATIONS.

8. REPLACEMENT TREES MAY NOT BE PLANTED WITHIN THE DRIP LINE OF EXISTING TREES.

9. ALL LANDSCAPE BEDS ARE TO IRRIGATED BY AN AUTOMATIC IRRIGATION SYSTEM.

10. ALL LANDSCAPE BEDS ARE TO BE DRESSED WITH 4\"/>

TREE PROTECTION

1. THE TREE PROTECTION FENCING (TPF) SHALL BE ERRECTED PER THE PLANS APPROVED BY THE CITY OF ROCHESTER HILLS PLANNING DEPARTMENT. THE TPF MUST BE IN PLACE AND BE INSPECTED BY THE CITY OF ROCHESTER HILLS PRIOR TO THE START OF ANY EARTHWORK OR CONSTRUCTION OPERATIONS. IT IS THE DEVELOPERS RESPONSIBILITY TO CONTACT THE CITY PLANNING DEPARTMENT (248.656.4660) TO SCHEDULE A TPF INSPECTION. THE TPF SHALL REMAIN IN PLACE THROUGHOUT THE ENTIRE CONSTRUCTION PROCESS OR UNTIL THE CITY AUTHORIZES THE REMOVAL OR ISSUES A FINAL CERTIFICATE OF OCCUPANCY, WHICHEVER OCCURS FIRST.

2. UPON COMPLETION OF GRADING AND THE INSTALLATION OF THE INFRASTRUCTURE, A SECOND INSPECTION OF THE TPF AND THE TREES DESIGNATED FOR PRESERVATION IS REQUIRED BY THE CITY OF ROCHESTER HILLS' LANDSCAPE ARCHITECT PRIOR TO THE START OF ANY ADDITIONAL CONSTRUCTION. IT IS THE DEVELOPERS RESPONSIBILITY TO CONTACT THE CITY PLANNING DEPARTMENT (248.656.4660) TO SCHEDULE THIS TPF INSPECTION.

3. UPON COMPLETION OF ALL CONSTRUCTION AND PRIOR TO THE REMOVAL OF THE TPF, THE CITY OF ROCHESTER HILLS' LANDSCAPE ARCHITECT MUST INSPECT ALL TREES DESIGNATED TO BE PRESERVED. THE LANDSCAPE PERFORMANCE BOND WILL NOT BE RELEASED UNTIL THIS INSPECTION IS COMPLETE AND ALL RELATED ISSUES ARE RESOLVED. IT IS THE DEVELOPERS RESPONSIBILITY TO CONTACT THE CITY PLANNING DEPARTMENT (248.656.4660) TO SCHEDULE THIS INSPECTION.

4. ALL FINAL INSPECTION BY THE CITY OF ROCHESTER HILLS' LANDSCAPE ARCHITECT IS REQUIRED AT THE END OF THE WARRANTY AND MAINTENANCE PERIOD. THE LANDSCAPE MAINTENANCE BOND WILL NOT BE RELEASED UNTIL THIS INSPECTION IS COMPLETE AND ALL RELATED ISSUES ARE RESOLVED. IT IS THE DEVELOPERS RESPONSIBILITY TO CONTACT THE CITY PLANNING DEPARTMENT (248.656.4660) TO SCHEDULE A THIS INSPECTION.

5. THE TREE CONSERVATION ORDINANCE PROHIBITS ANY CONSTRUCTION OR DEVELOPMENT ACTIVITIES WITHIN THE DRIP LINE OF TREES DESIGNATED FOR PRESERVATION. THIS INCLUDES, BUT IS NOT LIMITED TO, LAND CLEARING, GRUBBING, TRENCHING, GRADING AND/OR FILLING. NO PERSON SHALL PLACE ANY SOLVENTS, BUILDING MATERIAL, CONSTRUCTION EQUIPMENT, SOIL DEPOSITS, OR HARMFUL MATERIALS WITHIN THE DRIP LINE OF TREES DESIGNATED FOR PRESERVATION.

6. PROPOSED GRADES ARE TO MATCH THE EXISTING ELEVATIONS OUTSIDE THE LIMITS OF THE TPF. NO GRADING, EITHER CUT OR FILL IS PERMITTED WITHIN THE DRIP LINE OF ANY TREE DESIGNATED FOR PRESERVATION.

7. DURING THE CONSTRUCTION PROCESS, NO PERSON SHALL ATTACH ANY DEVICE OR WIRE/CABLE/CORD/ROPE TO ANY EXISTING TREE DESIGNATED TO BE PRESERVED.

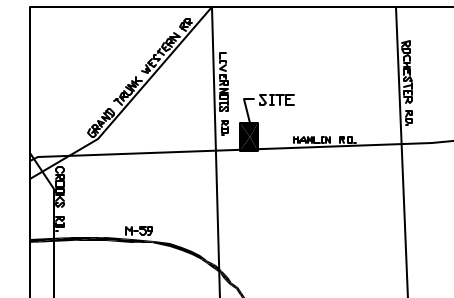
8. ALL UTILITY SERVICE REQUESTS MUST INCLUDE NOTIFICATION TO THE INSTALLER THAT PROTECTED TREES MUST BE AVOIDED. ALL TRENCHING SHALL OCCUR OUTSIDE THE TPF.

9. SWALES SHALL BE ROUTED TO AVOID THE AREA WITHIN THE DRIP LINE OF ANY TREE DESIGNATE FOR PRESERVATION. SWALES SHALL BE CONSTRUCTED SO AS NOT TO DIRECT ANY ADDITION FLOW INTO THE DRIP LINE OF A TREE DESIGNATED FOR PRESERVATION.

10. IF TREE PROTECTION CANNOT BE MAINTAINED FOR A TREE THROUGHOUT THE ENTIRE PERIOD REQUIRED, THEN TREE REPLACEMENT OF THAT TREE WILL BE REQUIRED ON AN INCH FOR INCH BASIS PRIOR TO THE ISSUANCE OF THE CERTIFICATE OF OCCUPANCY.

11. REGULATED TREES LOCATED OFF-SITE ON ADJACENT PROPERTIES THAT MAY BE AFFECTED BY CONSTRUCTION OPERATIONS MUST BE PROTECTED AS DEFINED HERE IN.

12. THE TPF SHALL CONSIST OF 4' HIGH ORANGE SNOW FENCING TO BE INSTALLED AROUND THE



LOCATION MAP N.T.S.

PLANT SYMBOL LEGEND

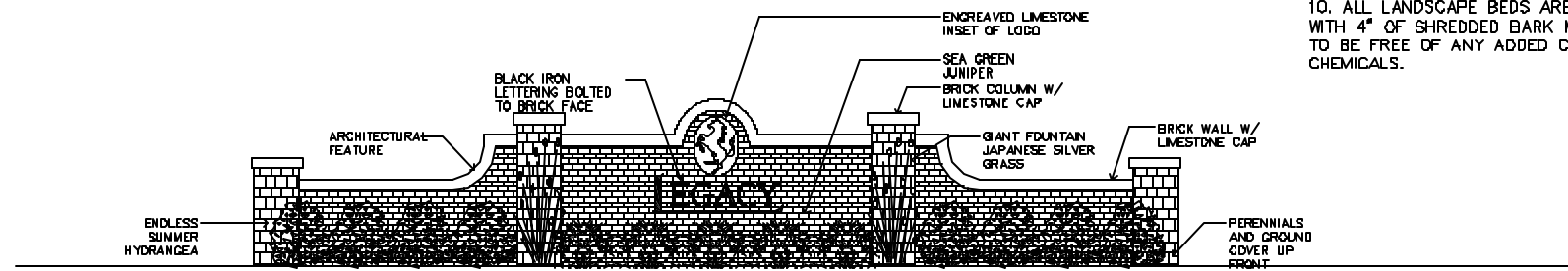
- 8 SEA GREEN JUNIPER
Juniperus chinensis 'Sea Green'
30" Ht., B&B, Even Habit, 3' o.c.
- 12 ENDLESS SUMMER HYDRANGEA
Hydrangea macrophylla 'Bailmer'
30" Ht., B&B, Even Habit, 3' o.c.
- 4 GIANT FOUNTAIN JAPANESE SILVER GRASS
Miscanthus sinensis 'Grasse Fontane'
5 gal. container

TREE PRESERVATION CALCULATIONS

TOTAL NUMBER OF TREES SURVEYED:	38
MINUS 1 TREE OFF SITE:	-1
MINUS 1 DEAD TREE:	-1
TOTAL NUMBER OF REGULATED TREES ON SITE:	36
TOTAL REGULATED TREES TO REMAIN ON SITE:	7
TOTAL REGULATED TREES TRANSPLANTED:	22
TOTAL REGULATED TREES REMOVED:	14
(37%):	14 (38.8%)
TOTAL TREES PRESERVED ON SITE:	

TREE REPLACEMENT DATA

DECIDUOUS TREES (3" CAL, WORTH 2 CREDITS):	4 (x 2 = 8)
EVERGREEN TREES (3" CAL, WORTH 2 CREDITS):	8 (x 2 = 16)
TOTAL CREDITS PROVIDED:	24



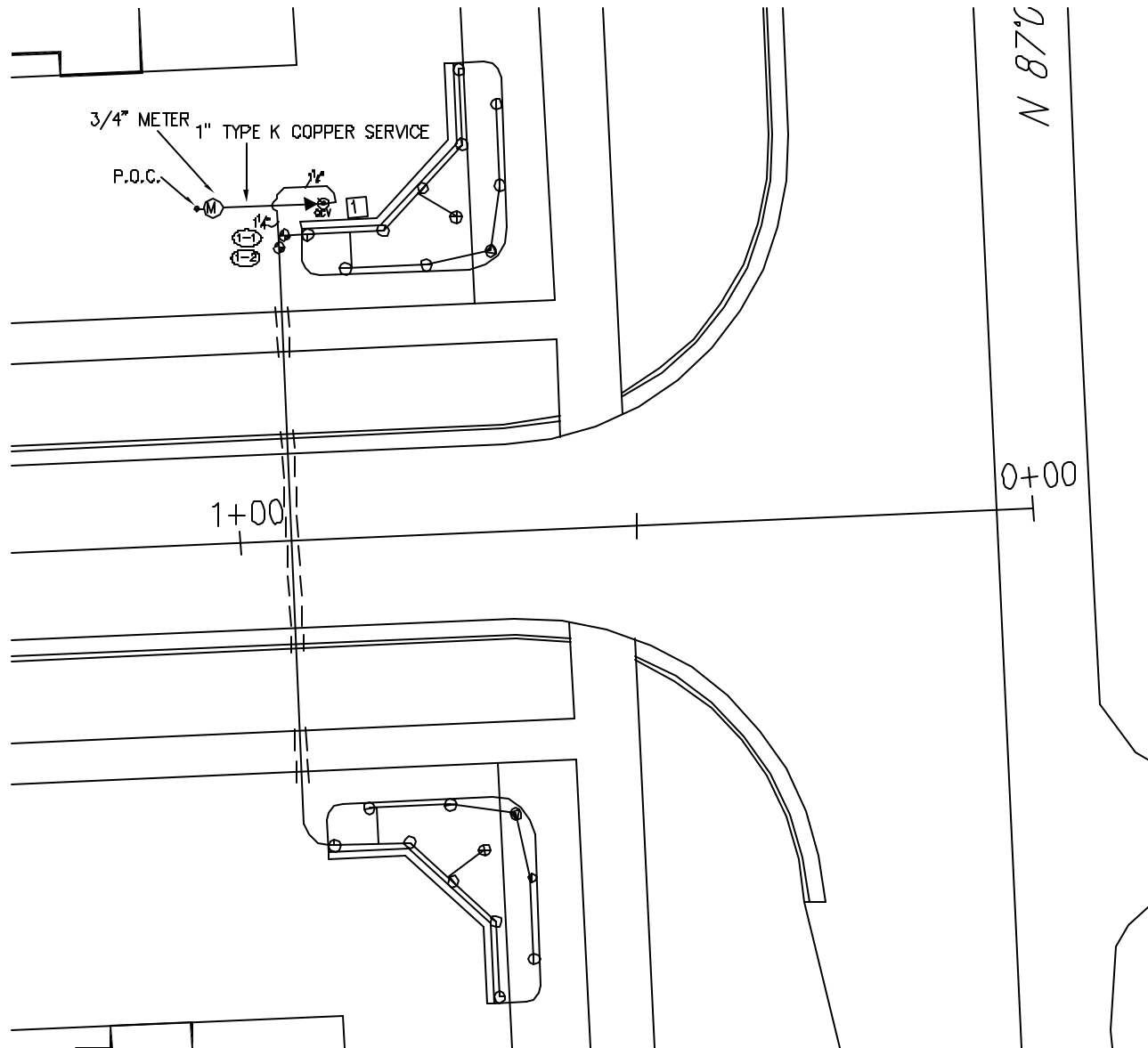
ENTRY WALL AND SIGNAGE DETAIL

NOT TO SCALE. FOR ILLUSTRATION PURPOSES ONLY

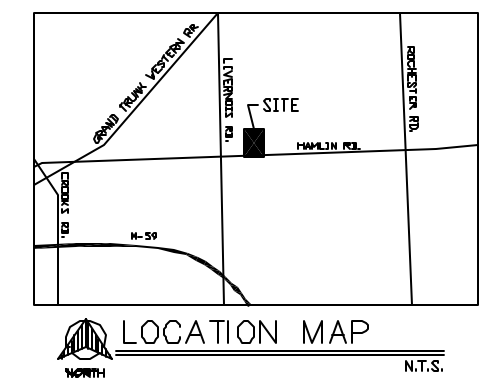
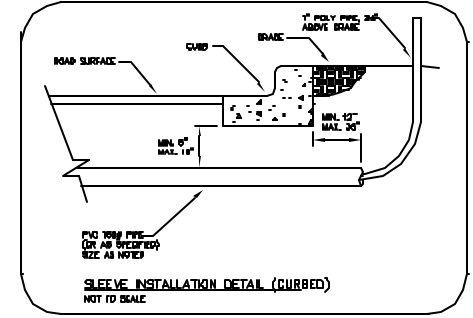
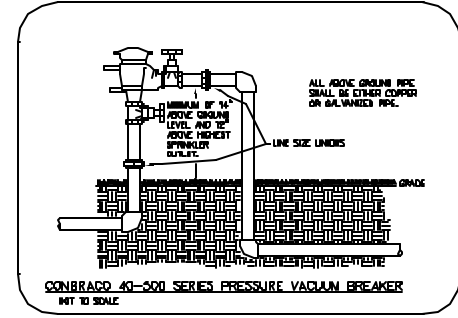
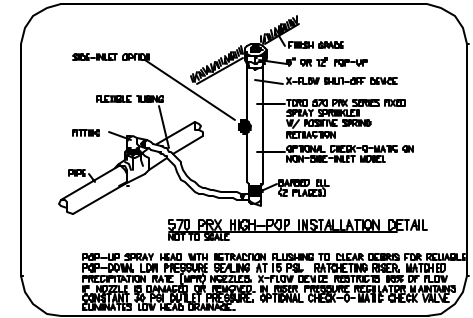
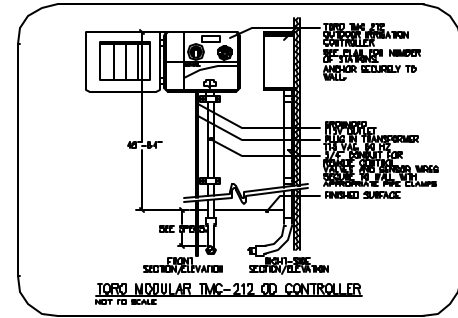
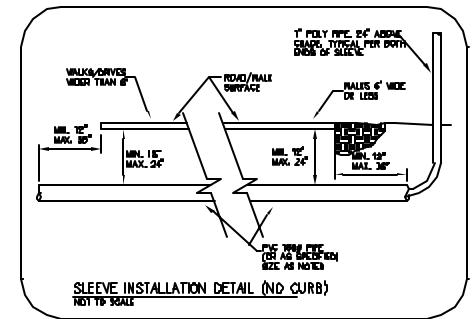
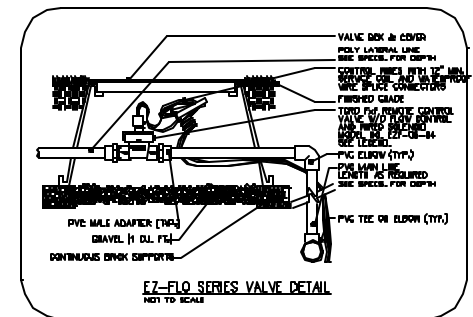
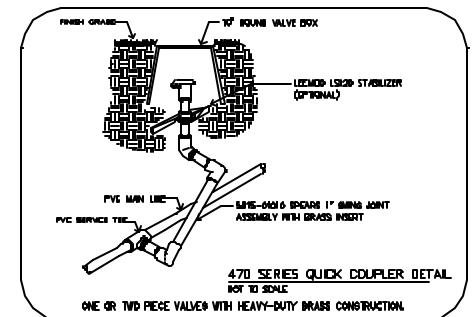
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NOT TO BE USED AS CONSTRUCTION DRAWINGS



ENTRY IRRIGATION DETAIL SCALE: 1" = 10' 0"



LEGEND

⊕ ⊖ ⊗ ⊙	570Z-PRX-12P	8'-MPR SERIES	TORO FIXED SPRAY POP-UP (12")
⊕ ⊖ ⊗ ⊙	570Z-PRX-12P	15'-MPR SERIES	TORO FIXED SPRAY POP-UP (12")
⊕ ⊖ ⊗ ⊙	474-00		TORO 1" QUICK COUPLER VALVE
⊕ ⊖ ⊗ ⊙	EZF-06-04		TORO 1" ELECTRIC VALVE
⊕ ⊖ ⊗ ⊙	TMC-212-00	4 STATION	TORO TMC CONTROLLER W/1-RS1000 RAIN SWITCH
—		PVC 160# PIPE (ALL 1-1/4" MAINLINE)	
—		OIL CREEK 100# POLYETHYLENE PIPE (PE-3408 NSF APPROVED) (ALL PIPE DOWNSTREAM OF VALVE 1-1/4" AND SMALLER)	
⊕ ⊖ ⊗ ⊙		POINT OF CONNECTION	
▶	40-500-02		CONBRACO 1" PRESSURE VACUUM BREAKER

- GENERAL NOTES:**
- COORDINATE THIS WORK WITH ALL OTHER TRADES.
 - ALL PLUMBING AND ELECTRICAL SHALL BE INSTALLED ACCORDING TO STATE AND LOCAL CODES.
 - ALL SLEEVES SHALL BE 4" PVC 100# (UNLESS OTHERWISE SPECIFIED). SLEEVE INSTALLATION SHALL BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR.
 - ALL PIPE NOT SIZED DOWNSTREAM OF VALVE IS 1".
 - IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR 1" TAP, 3/4" METER, METER PIT AND 1" SERVICE LINE. INSTALL PER THE CITY OF ROCHESTER HILLS WATER DEPARTMENTS STANDARDS.
 - 115V POWER INTO CONTROLLER SHALL BE SUPPLIED BY ELECTRICAL CONTRACTOR.
 - CONTROLLER AND RAINSWITCH SHALL BE MOUNTED AT LOCATION SHOWN ON PLAN (VERIFY EXACT LOCATION WITH OWNER'S REPRESENTATIVE).
 - IF SITE PRESSURE IS NOT ADEQUATE, A BOOSTER PUMP AND RELATED EQUIPMENT MAY BE REQUIRED AT ADDITIONAL COST TO OWNER.
- WATER REQUIREMENTS:** 6 GPM @ 41 PSI AT THE P.O.C.
- | ZONE NUMBER | VALVE SIZE | GPM | HEAD | TYPE | NUMBER | CONTROLLER NUMBER | STATION NUMBER |
|-------------|------------|-----|-------|--------|--------|-------------------|----------------|
| 1-1 | 1" | 6 | SPRAY | SYMBOL | | | |
| 1-2 | 1" | 6 | SPRAY | SYMBOL | | | |



THIS DESIGN IS BASED ON INFORMATION PROVIDED BY THE ARCHITECT AND/OR OWNER WHO ASSUMES FULL RESPONSIBILITY FOR ITS CORRECTNESS.

TORO

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Design By: QUINNINS, C.L.D.
Plan #: 08-016C
Date: 3-6-08
Revisions:

TECHNICAL LANDSCAPE SPECIFICATIONS

1.1 CONTRACTOR QUALIFICATIONS

The Landscape Contractor will be duly licensed by the appropriate authorities to handle plant materials. He will be covered by Public Liability and Property Insurance and his employees covered by Workmen's Compensation Insurance.

1.2 SITE PREPARATION

A. Trees, brush or shrubs will not be pruned or removed from the site except as directed by the Landscape Architect. Competent personnel shall do all pruning and removal.

B. If the Contractor is responsible for furnishing fillsoil, the material will be clean and well draining, free of any organic matter, debris, trash and heavy clay.

C. If the Contractor is responsible for rough grading he will grade the subgrade to within a rough grading tolerance to two inches (2") and to be true to line and section.

D. The Contractor will be responsible for making himself familiar with all underground utilities, pipes and structures. Contractor shall take sole responsibility for cost incurred due to damage and replacement of said utilities.

E. The Contractor will verify all rights of way, easements, property lines and limits of work, etc. prior to commencing work.

F. The Contractor will coordinate all site layouts with Landscape Architect. Report any dimensional discrepancies to Landscape Architect prior to construction.

G. Any erosion and sedimentation from work on this site shall be contained on the site and not allowed to collect on any off-site areas or waterways.

H. The Contractor is responsible for replacement of any existing materials that are damaged during construction.

1.3 FINISH GRADING

A. Over the accepted subgrade, topsoil shall be spread over all lawn areas a minimum of two inches (2") unless otherwise specified.

1.4 TREE PROTECTION

A. Prior to the initiation of any construction activity, approved tree protection shall be erected and will remain in place until construction is complete.

B. The following activities may not occur within the drip line of all protected trees on the site: 1. Storage of solvents, building materials, soil deposits, equipment, both idle and running, and vehicular parking.

C. During construction, no wires, lines, etc. may be fastened in any form to any protected tree.

D. Care should be taken to prevent damage to any regulated trees located on adjacent properties that could be affected during construction.

E. When contracting utility services, notification must be given of the protected trees and all trenching is to be performed outside of the drip lines.

1.5 PLANT MATERIAL

A. All plant material called for in the plant list as shown on the drawing will be of minimum size specified or larger. The height and spread will be measured according to the horticultural standards of the American Association of Nurserymen.

B. No substitutions or changes of location, or plant types shall be made without the approval of the Landscape Architect. The Landscape Architect shall be notified of any discrepancies between the plans and field conditions prior to installation.

C. The Landscape Architect will have the prerogative to request the source of supply for all plant material to be used, before delivery is started. When specimen material is indicated or when the best interest of the Owner may be served, the Landscape Architect or their designated representative will have the right to inspect the material prior to delivery.

D. Only materials conforming to the requirements of these specifications or specimens approved by the Landscape Architect or authorized agents shall be used in the work.

E. The Bidder will not modify his bid because of his inability to find a source of supply of plant material specified. If the Landscape Contractor can show satisfactory evidence before the contract is awarded that a particular species is not available, a substitution will be negotiated on the following basis:

1. Determine from the current catalog of the Lake County Nursery Exchange, Inc. Perry, Ohio 44881 and/or Landscape Supply Co. Taylor, Michigan 48180 the price of one plant to be substituted.

2. The price to be paid the Landscape Contractor for furnishing, planting, and quarantining each substituted item will be the same proportion to the bid price as the catalog price determined above.

NOTE: A particular nursery catalog is stipulated only to set-up, before the opening of bids, a rigid procedure for negotiating unit prices on material substituted in place of the specified material.

F. Trees will be measured in trunk diameter six inches (6") above ground line if the trunk is four inches (4") or less in diameter. If over four inches (4") in diameter, it shall be measured twelve inches (12") above the normal ground line.

G. Small ornamental trees will be measured on an average from the ground line to the tops of previous year's growth on the vertical branches. All plants, unless otherwise specified, shall be heavy types and may be inspected on the site before Contractor installs the material.

H. Multi-stemmed trees and shrubs will be measured at the average distance across the body of the plant from tip to tip of branches in their natural position, and at the average height.

I. Plants will be handled properly and protected during transportation to insure satisfactory condition at destination point. The Landscape Architect reserves the right to reject any plants that do not meet the above specifications.

J. Bare root stock and balled & burlapped plants will be carefully protected with wet straw, mulch, or other materials so that the plants will be stored with their roots in a moist and healthy condition, and shall be governed by weather conditions and the length of time that the root ball must remain above ground.

K. Trunks and branches of all trees will be carefully protected from injury of any kind during all operations of digging, loading and transporting. Any plants that are injured may be rejected by the Landscape Architect.

L. All plants so specified, will be balled and burlapped previous to shipment. Such plants shall be lifted from the ground in such a manner as to retain a firm ball of earth.

M. All plant material shall be planted plumb and at the correct depth, and shall be staked, guyed and wrapped, as soon or possible after planting. It will be at the discretion of the contractor to use the appropriate products and material so the plants will remain straight, properly aligned, and at the proper elevation for the guarantee period.

N. All pruning will be performed on the job site by a competent plantsman. All broken branches and roots will be removed in an approved manner providing a clean cut.

O. The Contractor will thin bare root plants by removing 1/3 of their branching. This will be done in an artful fashion so as not to destroy the natural character of the plant.

1.6 SOIL PREPARATION AND PLANTING

A. The Contractor shall prepare such quantities of planting soil as may be required to install plants in accordance with the accepted practice of the American Association of Nurserymen and to the satisfaction of the Landscape Architect.

Note: The contractor will acidify the ericaecious soil with peric sulfate to arrive at ph of 4.5. A general guideline for excavation of the plant pits follows:

Table with 3 columns: SIZE, PLANT, PIT SIZE. Each Side Bottom. Rows include Deciduous Tree, Evergreen Tree, Deciduous Shrub, Evergreen Shrub, and Perennials.

Notes: * Soil conditions could modify these sizes. ** After excavation, backfill with existing soil so that root ball sits at proper grade.

C. Metal and tar paper containers shall be removed from all container grown plant materials. Biodegradable paper mache' containers may be left in place, but additional holes shall be punched through the sides to provide adequate drainage.

D. The Contractor is responsible for the proper placement, alignment and settling of all plants. Care shall be taken to place all plants at their proper depth.

1.7 SEEDING

A. Spread commercial fertilizer (15/30/15) evenly with a mechanical spreader at the rate of 150 lbs/acre and thoroughly incorporate into the topsoil to a depth of two inches (2").

B. Seed will be planted at the uniform rate of six (6) pounds per one thousand square feet (1,000 sq.ft.). Seed will be clean, new crop seed composed of the following mixture:

Table with 2 columns: Fertilizer Blend, Percentage. Rows include Kentucky Blend, Creeping Red Fescue, and Fine Leaf Rye Grass.

(unless otherwise specified on the plan) All seed shall have a 97% purity rating. Certification of the seed mix will be provided to the Landscape Architect prior to any seeding operation, if so requested.

C. Incorporate all seeding by use of a billion seeder with roller to a minimum depth of one-half inch (1/2") or approved equal.

D. All seeded areas will be mulched with straw mulch or hydro mulch. This will be left to the discretion of the Contractor.

E. Any part of this area that fails to show a uniform germination shall be reseeded at no additional expense to the Owner and such reseeding shall continue until a dense lawn is established.

F. It is the intent of these specifications to obtain a finished lawn surface free of humps and depressions, and satisfactory for mowing with hand or mechanical mowers, and to establish an even dense, weed free turf of permanent grasses.

1.8 SODDING

A. Seed mixture composition of the sod will be approved by the Landscape Architect prior to delivery on site. Sod will be laid over approved subgrade.

B. Any area or amount of sod that dies shall be replaced at no additional expense to the Owner.

C. It is the intent of these specifications to obtain a finished lawn surface free of humps and depressions, and satisfactory for mowing with hand or mechanical mowers, and to establish an even dense, weed free turf of permanent grasses.

1.9 SEEDING AND SODDING MAINTENANCE

A. Maintenance shall begin immediately after a portion of turf is installed and shall be the responsibility of the contractor for a period of 30 days.

B. Maintenance shall also include, but not be limited to the watering, weeding, reseeding, resodding, rolling, trimming and other operations as necessary.

1.10 FERTILIZING AND WATERING OF PLANT MATERIAL

A. Fertilizing is left to the discretion of the Contractor. In no case should dry type commercial fertilizers be placed in the root zone, unless they are the pelletized slow-release type, designed for this purpose.

B. All plants will be thoroughly watered in by the Contractor immediately after planting. Watering will be the Contractor's responsibility until the installation is accepted by the Owner.

1.11 EDGING

A. Edging will be the type specified and installed where shown on the drawing.

B. All edging shall be installed uniform to the grade and in straight alignment.

C. Edging will be cut or perforated when installed in low areas, swales or any situation where drainage might be impeded.

D. Variation from the plan will not be allowed unless otherwise specified by the Landscape Architect.

1.12 STONE MULCH

A. All stone mulch specified on the plan will be of the type and size aggregate indicated and will be applied at the thickness specified on the plan.

B. The stone mulch material shall be consistent in size, shape, and color, will be of premium grade and washed clean prior to installation.

1.13 SHREDDED BARK MULCH

A. All planting beds indicated on the plan shall contain a layer of Shredded Bark Mulch. Mulch shall be applied at the thickness specified on the plan.

B. The mulch material shall have a dark brown, fine shredded appearance with no large objectionable pieces. No wood chips will be allowed.

C. Approved pre-emergent weed preventative shall be applied to all mulched beds at a rate specified by the manufacturer.

D. All evergreen and deciduous trees in lawn areas will receive approximately ten (10) sq. ft. of Shredded Bark Mulch per tree at a four inch (4") minimum depth.

1.14 GUARANTEE

A. The Contractor will guarantee in writing all plant material to be true to name and in vigorous condition at time of planting. In addition, he will guarantee the life of all plant materials 100% for a period of two (2) years from the date of approval by the city of Rochester Hills' Landscape Architect.

B. All construction will be guaranteed in writing against faulty workmanship and materials for a period of two (2) years from the date of approval by the city of Rochester Hills' Landscape Architect.

1.15 ACCEPTANCE & PAYMENT

A. The job will be accepted when completed to the satisfaction of the Landscape Architect and Owner. The Landscape Architect shall have the authority to reject any material that does not meet the specifications or is improperly planted or placed.

All mud, dirt, and debris tracked onto existing roads from the site due to his construction duties shall be removed by the contractor.

Any damage caused by the Landscape Contractor to existing plants, structures, walks and lawns must be repaired prior to final payment.

B. Partial payments shall be made as various stages of the job are completed and accepted:

- 1. Construction
2. Planting
3. Sodding

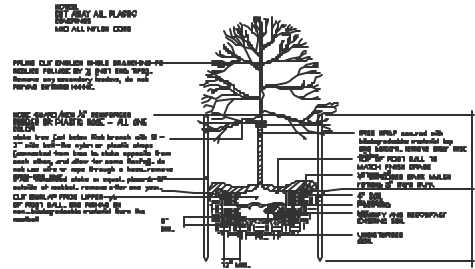
Ten percent (10%) of said payments shall be retained until the total contract is completed and accepted.

1.16 MISCELLANEOUS NOTES

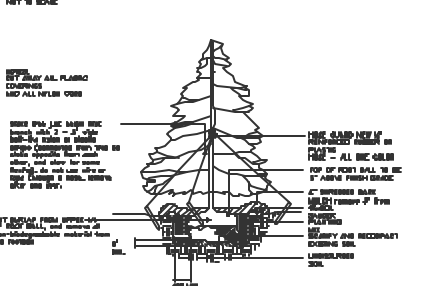
A. Care should be taken by Contractor not to plant under or over utility lines, and easements, or in any location where existing utilities will interfere with the growth of plant material.

B. Contractor shall be responsible for checking plant and material quantities to ensure quantities on drawings and plant list (if provided) are the same. In the event of a discrepancy, the quantities on the plans shall prevail.

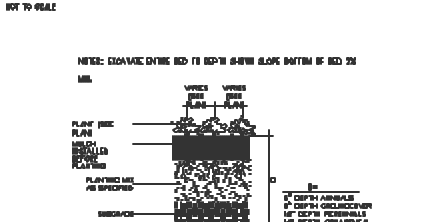
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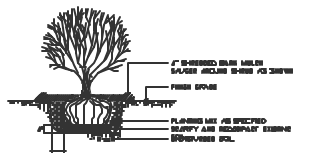
DECIDUOUS TREE PLANTING



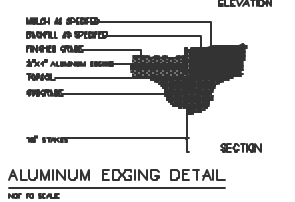
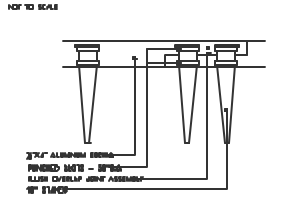
EVERGREEN TREE PLANTING



GROUNDCOVER / PERENNIAL / ANNUAL PLANTING



SHRUB PLANTING DETAIL



PRELIMINARY COST ESTIMATE

Table with columns: QTY., BOT. NAME/COMMON NAME, SIZE, CONDITION, SPACING, UNIT, TOTAL. Rows include Deciduous Shade Trees, Evergreen Trees, Shrubs, Grasses and Perennials, and Others.

TOTAL \$14,012

NOT TO BE USED AS CONSTRUCTION DRAWINGS