

PINES OF ROCHESTER HILLS

920 SOUTH BOULEVARD WEST
CITY OF ROCHESTER HILLS, MICHIGAN 48307
SECTION 34, T3N, R11E, CITY OF ROCHESTER HILLS, OAKLAND COUNTY

PREPARED FOR
AGE OF ROCHESTER HILLS, INC.
1245 E. GRAND BLANC ROAD
GRAND BLANC, MICHIGAN 48439
(810) 701-0055



SITE LOCATION MAP

LEGAL DESCRIPTION

LAND SITUATED IN THE CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN, DESCRIBED AS: PART OF THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 34, TOWN 3 NORTH, RANGE 11 EAST, CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN, BEING MORE PARTICULARLY DESCRIBED AS BEGINNING AT A POINT ON THE SOUTH SECTION LINE LOCATED NORTH 88 DEGREES 35 MINUTES 00 SECONDS EAST, 325.71 FEET (EAST, 331.28 FEET RECORD) FROM THE SOUTHWEST CORNER OF SAID SECTION; THENCE NORTH 04 DEGREES 48 MINUTES 00 SECONDS WEST, 337.99 FEET; THENCE NORTH 88 DEGREES 35 MINUTES 00 SECONDS EAST, 500.00 FEET; THENCE SOUTH 04 DEGREES 48 MINUTES 00 SECONDS EAST, 337.99 FEET TO A POINT ON THE SOUTH LINE OF SAID SECTION; THENCE SOUTH 88 DEGREES 35 MINUTES 00 SECONDS WEST, 500.00 FEET ALONG SAID LINE TO THE POINT OF BEGINNING, CONTAINING 3.87 ACRES AND IS SUBJECT TO THE ANY EASEMENTS, RESTRICTIONS OF RECORD AND THE RIGHTS OF THE PUBLIC IN SOUTH BOULEVARD (60 FEET WIDE-HALF R.O.W.).

BENCHMARKS

BENCHMARK #1
NORTH RIM OF SANITARY MANHOLE, LOCATED IN ASPHALT PATHWAY, 26 FEET SE'LY FROM END OF 6 FOOT CONCRETE WALL
ELEVATION = 788.85' USGS

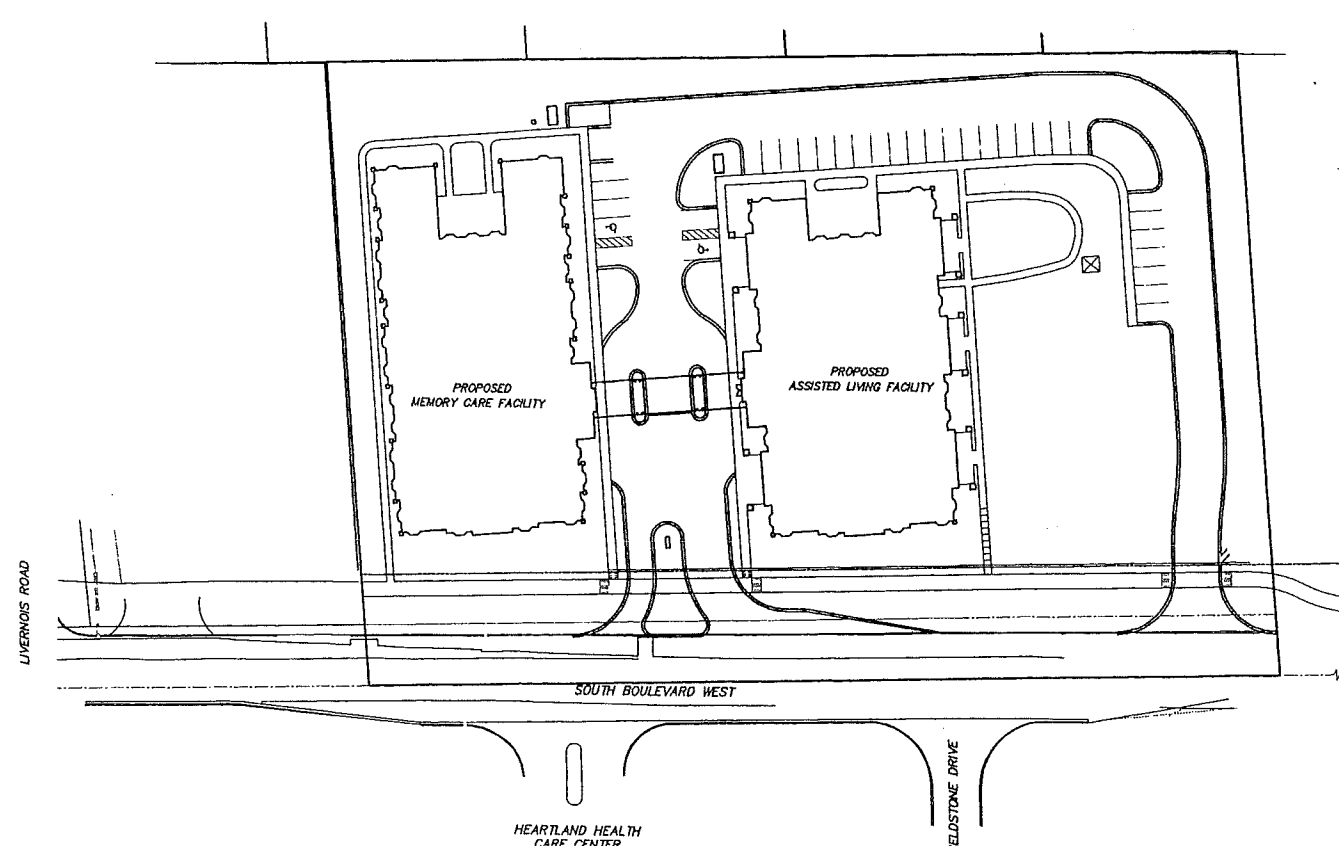
BENCHMARK #2
NORTHEAST FLANGE BOLT ON NEW HYDRANT.
ELEVATION = 790.23' USGS

BENCHMARK #3
SQUARE CONCRETE NAIL IN THE NORTH FACE OF A POWER POLE.
ELEVATION = 789.80' USGS

BENCHMARK #4
SQUARE CONCRETE NAIL IN THE NORTH FACE OF A POWER POLE WITH NO WIRES.
ELEVATION = 787.89' USGS

LEGEND

- ① --- STORM SEWER & MANHOLE
- ② --- SANITARY SEWER & MANHOLE
- ③ --- WATER MAIN, HYDRANT, & VALVE
- ④ --- GAS MAIN & VALVE
- ⑤ --- BURIED TELEPHONE & MANHOLE
- ⑥ --- UNDER GROUND ELECTRIC & MANHOLE
- ⑦ --- OVERHEAD ELECTRIC, POLE, & OUY WIRE
- ⑧ --- CATCH BASIN (CURB & ROUND)
- ⑨ --- WATER MANHOLE
- ⑩ --- 785 --- CONTOUR LINE
- ⑪ --- FENCE
- ⑫ --- GUARD RAIL
- ⑬ --- LIGHT POLE
- ⑭ --- SIGN
- ⑮ --- STREET SIGN
- ⑯ --- MAILBOX
- ⑰ --- MONITOR WELL
- ⑱ --- FLOW DIRECTION
- ⑲ --- EXISTING CONTOURS
- ⑳ --- PROPOSED CONTOURS
- COMPACTED TO 95% MODIFIED PROCTOR



MUNICIPAL/UTILITY CONTACTS

- CITY OF ROCHESTER HILLS**
PLANNING AND ECONOMIC DEVELOPMENT
ED ANZEK, DIRECTOR
SARA ROEDIGER, MANAGER
1000 ROCHESTER HILLS DRIVE
ROCHESTER HILLS, MICHIGAN 48309
(248) 841-2572/2573
- CITY OF ROCHESTER HILLS**
BUILDING DEPARTMENT
SCOTT COPE, DIRECTOR
1000 ROCHESTER HILLS DRIVE
ROCHESTER HILLS, MICHIGAN 48309
(248) 841-2445
- CITY OF ROCHESTER HILLS**
DEPARTMENT OF PUBLIC SERVICES
TRACEY BALINT, P.E.
1000 ROCHESTER HILLS DRIVE
ROCHESTER HILLS, MICHIGAN 48309
(248) 841-2504
- AT&T**
STEVE SHORE, ENGINEER
DEAN JONES, ENGINEER
54 NORTH MILL STREET
PONTIAC, MICHIGAN 48342
(248) 459-9371
- DETROIT EDISON**
MACOMB SERVICE CENTER
RON CLEVELAND
15600 19 MILE ROAD
CLINTON TOWNSHIP, MICHIGAN 48038
(586) 412-4709
- DETROIT EDISON**
IGS GROUP
ROBIN O'CONNELL
ONE ENERGY PLAZA, 518 SB
DETROIT, MICHIGAN 48226
- ROAD COMMISSION OF OAKLAND COUNTY**
PERMITS DEPARTMENT
SCOTT SINTKOWSKI, P.E.
2420 PONTIAC LAKE ROAD
WATERFORD, MICHIGAN 48328
(248) 858-4835
- OAKLAND COUNTY WATER RESOURCE COMMISSIONER**
GLEN APPEL, CHIEF ENGINEER
PUBLIC WORKS BUILDING
ONE PUBLIC WORKS DRIVE
WATERFORD, MICHIGAN 48328
(248) 858-1329
- COMCAST**
TOM DICKINSON
6095 WALL STREET
STERLING HEIGHTS, MICHIGAN 48312
(586) 883-7412
- CONSUMERS ENERGY**
MICHAEL JABLONSKI
14500 DIXIE HIGHWAY
HOLLY, MICHIGAN 48442
(248) 858-4405



PRELIMINARY
NOT FOR CONSTRUCTION
ISSUED FOR SITE PLAN APPROVAL
6-5-15

DISTRIBUTION INDEX/APPROVAL STATUS

AGENCY	DATE SUBMITTED	COMMENTS
CITY OF ROCHESTER HILLS	3-18-15	SITE PLAN REVIEW
AT&T - STEVE SHORE	3-18-15	PLAN REVIEW
AT&T - DEAN JONES	3-18-15	UTILITY LOCATION
COMCAST	3-18-15	PLAN REVIEW AND UTILITY LOCATION
CONSUMERS ENERGY	3-18-15	PLAN REVIEW AND UTILITY LOCATION
DETROIT EDISON - RON CLEVELAND	3-18-15	PLAN REVIEW AND UTILITY LOCATION
DETROIT EDISON - ROBIN O'CONNELL	3-18-15	UTILITY LOCATION
OAKLAND COUNTY WATER RESOURCE COMMISSION	3-19-15	CONFIRMED NO AUTHORITY, 3-24-15
ROAD COMMISSION OF OAKLAND COUNTY	3-19-15	SITE PLAN REVIEW
CITY OF ROCHESTER HILLS	6-5-15	ISSUED FOR SITE PLAN APPROVAL
ROAD COMMISSION OF OAKLAND COUNTY	6-5-15	REVISED SITE PLAN REVIEW

SHEET INDEX

- ARCHITECTURAL SURVEY 1
- DEMOLITION PLAN 2
- SITE PLAN 3
- UTILITY PLAN 4
- GRADING PLAN 5
- SOIL EROSION CONTROL PLAN 6
- LANDSCAPE PLAN 7
- UTILITY PROFILES 8
- SITE DETAILS 9
- CITY OF ROCHESTER HILLS STANDARD DETAILS (6)
- ARCHITECTURAL FLOOR PLAN AND ELEVATIONS (4)
- PHOTOMETRIC PLAN (1)
- IRRIGATION PLAN (1)

CHMP INC.
5198 TERRITORIAL ROAD
GRAND BLANC, MI 48439
TELEPHONE 810/895-5810



ARCHITECTURE
ENGINEERING
LANDSCAPE ARCHITECTURE
SURVEYING

CHMP PROJECT NO. 13005500
CITY FILE #13-016.3



LOCATION OF ALL UNDERGROUND UTILITIES AS SHOWN ARE APPROXIMATE. ALL LOCATIONS MUST BE FIELD VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION.

TREE INVENTORY LIST

TREE #	TAG#	SIZE	COMMON NAME	CONDITION	DRIPLINE RADIUS
1	251	14"	ELM	GOOD	15'
2	252	10"	ELM	STUMP	0'
3	253	12"	ELM	POOR	12'
4	254	10"	ELM	POOR	12'
5	255	36"	ELM	GOOD	30'
6	256	30"	MAPLE	FAIR	20'
7	257	40"	WALNUT	GOOD	35'
8	258	36"	WALNUT	FAIR	35'
9	259	36"	PINE	STUMP	0'
10	260	8"	ASH	POOR	12'
11	261	8"	ASH	POOR	12'
12	262	12"	ASH	POOR	20'
13	263	6"	ELM	GOOD	15'
14	264	10"	ELM	GOOD	15'
15	265	10"	ASH	POOR	15'
16	266	12"	ASH	POOR	15'
17	267	15"	ELM	DEAD	15'
18	268	12"	ASH	POOR	15'
19	269	14"	BOX ELDER	FAIR	20'
20	270	10"	BOX ELDER	FAIR	15'
21	271	24"	ASH	POOR	30'
22	272	8"	MAPLE	GOOD	18'
23	273	8"	ELM	DEADFALL	0'
24	274	10"	ELM	DEAD	16'
25	275	12"	ELM	DEADFALL	0'
26	276	12"	ELM	DEADFALL	0'
27	277	14"	MULBERRY	GOOD	25'
28	278	20"	POPLAR	GOOD	20'
29	279	14"	MAPLE	GOOD	20'
30	280	10"	MAPLE	DEAD	8'
31	281	8"	ASH	POOR	15'
32	282	8"	MAPLE	GOOD	15'
33	283	8"	ASH	DEAD	15'
34	284	6"	ASH	DEAD	10'
35	285	8"	ASH	POOR	15'
36	286	8"	ASH	POOR	12'
37	287	12"	ASH	POOR	18'
38	288	8"	ASH	POOR	15'
39	289	8"	ELM	GOOD	15'
40	290	18"	POPLAR	GOOD	20'
41	291	6"	ASH	DEAD	10'
42	292	10"	ELM	GOOD	20'
43	293	8"	ASH	DEADFALL	10'
44	294	18"	BOX ELDER	GOOD	25'
45	295	3/18"	WALNUT	GOOD	15'
46	296	20"	WALNUT	GOOD	22'
47	297	24"	WALNUT	GOOD	30'
48	298	18"	WALNUT	GOOD	25'
49	299	24"	MAPLE	GOOD	25'
50	300	8"	BOX ELDER	GOOD	12'
51	301	24"	PINE	GOOD	30'
52	302	60"	WILLOW	DEAD	30'
53	303	14"	ASH	FAIR	20'
54	304	16"	ASH	FAIR	25'
55	305	40"	WALNUT	GOOD	40'
56	306	22"	WALNUT	GOOD	30'
57	307	10"	WILD CHERRY	GOOD	10'
58	308	12"	ASH	DEAD	15'
59	309	24"	MULBERRY	GOOD	30'
60	310	24"	ELM	DEAD	25'
61	311	22"	WALNUT	GOOD	25'
62	312	48"	WILLOW	DEAD	24'
63	313	8"	APPLE	FAIR	12'
64	314	10"	BOX ELDER	GOOD	18'

TAG NO.	DBH	COMMON NAME	CONDITION	DRIPLINE RADIUS
401	14"	blue spruce	good	20'
402	10"	mulberry	good	20'
403	8"	elm	good	15'
404	8"	maple	good	12'
405	8"	maple	good	12'
406	12" bin	elm	fair	35'
407	8"	cottonwood	good	15'
408	30"	cottonwood	poor	35'
409	48"	ash	good	60'
410	24"	elm	bad	25'
411	18"	river maple	good	25'
412	24"	spruce	good	20'
413	14"	fir	good	20'
414	24"	spruce	good	35'
415	20" triple	catbpa	good	15'
416	24"	honeylocust	good	20'
417	30"	stamp		

LEGAL DESCRIPTION

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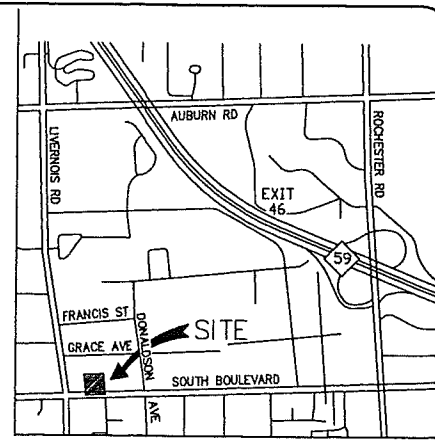
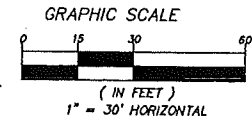
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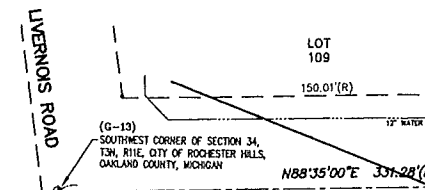
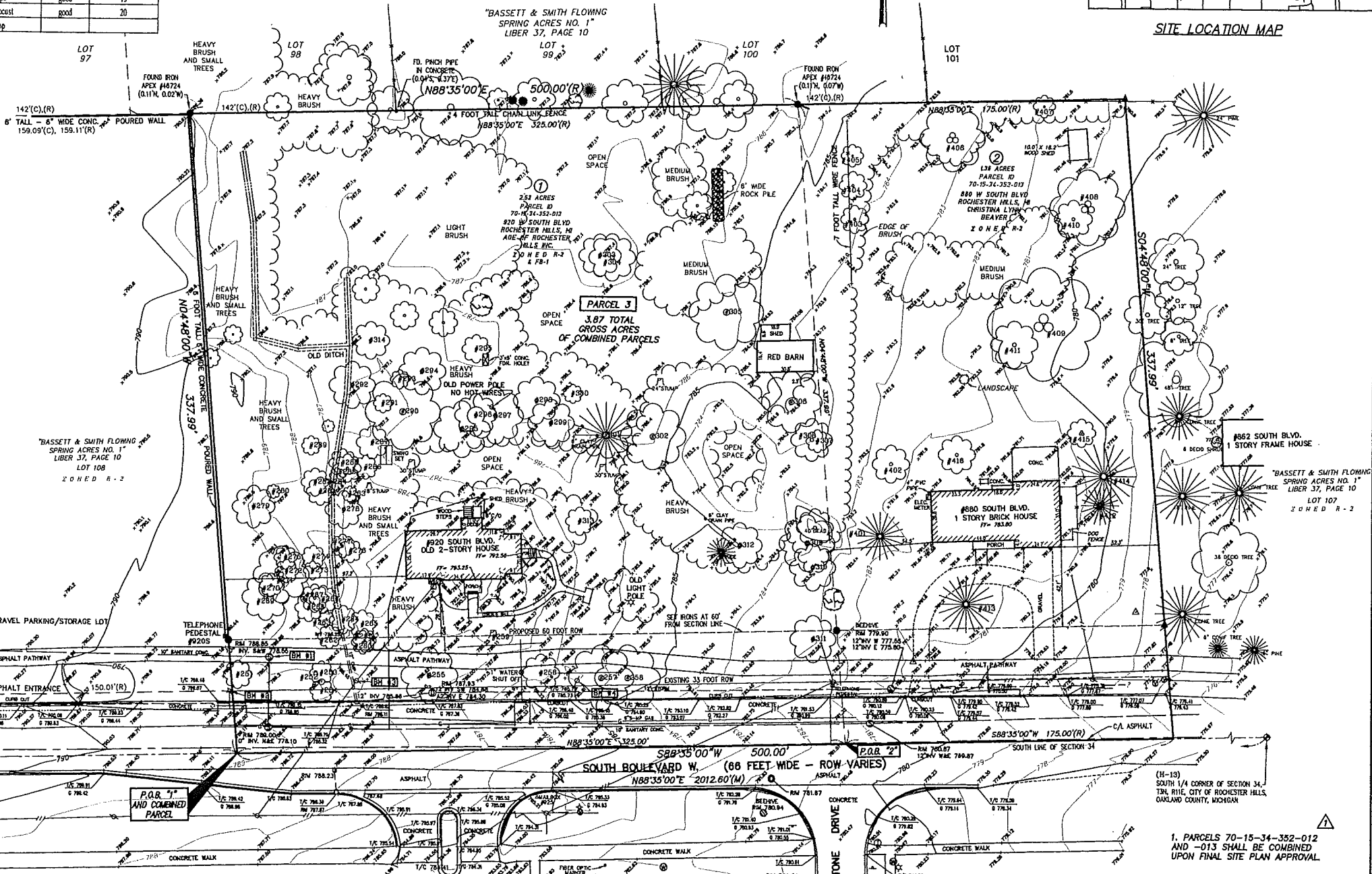
BENCHMARK #4
SQUARE CONCRETE NAIL IN THE NORTH FACE OF A POWER POLE WITH NO NINES, ELEVATION = 787.89'

LEGEND

- STORM DRAIN & MANHOLE
- SANITARY DRAIN & MANHOLE
- WATER MAIN, HYDRANT, & VALVE
- GAS MAIN & VALVE
- OVERHEAD ELECTRIC & MANHOLE
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SITE LOCATION MAP



LOCATION OF ALL UNDERGROUND UTILITIES AS SHOWN ARE APPROXIMATE. ALL LOCATIONS MUST BE FIELD VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION.

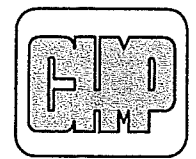
REVISION INDEX

1.	PER CITY OF ROCHESTER HILLS, 4-14-15
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PRELIMINARY
NOT FOR CONSTRUCTION
ISSUED FOR SITE PLAN APPROVAL
6-5-15

ARCHITECTURAL SURVEY

CHMP INC.
518 TERRITORIAL RD.
GRAND BLAND, MI 48839
TELEPHONE 810/498-8910



ARCHITECTURE
ENGINEERING
LANDSCAPE ARCHITECTURE
SURVEYING

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PINES OF ROCHESTER HILLS
920 SOUTH BOULEVARD WEST
CITY OF ROCHESTER HILLS, MICHIGAN 48307
SECTION 34, T3N, R11E, CITY OF ROCHESTER HILLS, OAKLAND COUNTY

PREPARED FOR
AGE OF ROCHESTER HILLS, INC.
1245 E. GRAND BLAND ROAD
GRAND BLAND, MICHIGAN 48439
(810) 701-0005

PROJECT NO. 13005500
DATE DRAWN: 2-7-14
DATE REVISED: 5-14-15
AS-BUILT DATE:
SHEET NUMBER

1
CITY FILE #13-016.3



ARCHITECTURE
 ENGINEERING
 LANDSCAPE ARCHITECTURE
 SURVEYING

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PINES OF ROCHESTER HILLS
 920 SOUTH BOULEVARD WEST
 CITY OF ROCHESTER HILLS, MICHIGAN 48307
 SECTION 34, T3N, R11E, CITY OF ROCHESTER HILLS, OAKLAND COUNTY

PREPARED FOR
 AGE OF ROCHESTER HILLS, INC.
 1245 E. GRAND BLANC ROAD
 GRAND BLAND, MICHIGAN 48439
 (810) 701-0003

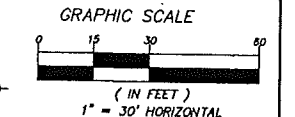
PROJECT NO. 13065500
 DATE DRAWN: 2-7-14
 DATE REVISED: 6-5-15
 AS-BUILT DATE:
 SHEET NUMBER
3
 CITY FILE #13-016.3

GENERAL NOTES

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE CITY OF ROCHESTER HILLS, OAKLAND COUNTY DRAIN COMMISSION, OAKLAND COUNTY ROAD COMMISSION, MICHIGAN DEPARTMENT OF TRANSPORTATION, AND THE MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY (MDAQ) WHERE APPLICABLE. REFER TO CITY OF ROCHESTER HILLS FOR ALL NOTES AND DETAILS RELATED TO PAVING, SANITARY SEWER, STORM SEWER AND WATERMAIN CONSTRUCTION.
2. CHMP, INC SHALL NOT BE RESPONSIBLE FOR MEANS, METHODS, PROCEDURES, TECHNIQUES, OR SEQUENCES OF CONSTRUCTION, NOR THE SAFETY ON THE JOB SITE, NOR SHALL CHMP, INC. BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CARRY OUT THE WORK IN ACCORDANCE WITH THESE DOCUMENTS.
3. THE CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE OWNER, ENGINEER, CITY OF ROCHESTER HILLS, OAKLAND COUNTY, AND THE STATE OF MICHIGAN FROM ALL LIABILITIES FOR INJURY TO PERSONS, OR DAMAGE TO OR LOSS OF PROPERTY, OR ANY OTHER LOSS, COST OR EXPENSE, AS A RESULT OF THE ACTIONS OF THE CONTRACTOR, HIS EMPLOYEES, AGENTS, OR SUBCONTRACTORS.
4. THE LOCATION AND ELEVATION OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE DRAWINGS ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT LOCATION AND ELEVATION OF EXISTING UTILITIES AND PROPOSED UTILITY CROSSINGS IN THE FIELD PRIOR TO CONSTRUCTION. FURTHER, THE CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES, WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
5. THREE (3) WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR SHALL TELEPHONE MISS DIO (800-482-2171) FOR THE LOCATION OF UNDERGROUND GAS AND CABLE FACILITIES AND SHALL NOTIFY REPRESENTATIVES OF OTHER UTILITIES LOCATED IN THE VICINITY OF THE WORK. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY AND/OR OBTAIN ANY INFORMATION NECESSARY REGARDING THE PRESENCE OF UNDERGROUND UTILITIES THAT AFFECT THIS JOB.
6. PRIOR TO CONSTRUCTION, ALL EXISTING UTILITIES AT PROPOSED CONNECTIONS AND CROSSINGS SHALL BE FIELD EXCAVATED TO VERIFY LOCATION AND ELEVATION. FIELD INFORMATION SHALL BE SUPPLIED TO THE ENGINEER SO THAT THE ENGINEER MAY CONFIRM, ADJUST OR REVISE DESIGN ELEVATIONS OF PROPOSED UTILITIES.
7. ALL NECESSARY PERMITS, BONDS, INSURANCES, ETC., SHALL BE OBTAINED AND PAID FOR BY THE CONTRACTOR REQUIRING SUCH PERMITS, BONDS, ETC.
8. THE CONTRACTOR SHALL ARRANGE FOR A PRE-CONSTRUCTION MEETING TWO (2) WEEKS PRIOR TO THE START OF CONSTRUCTION TO BE ATTENDED BY REPRESENTATIVES OF ALL PERMIT ISSUING AGENCIES TO COORDINATE THE WORK, INSPECTIONS AND TIMING OF ALL PARTIES.
9. THE CONTRACTOR SHALL NOTIFY THE PERMIT ISSUING AGENCIES THREE (3) DAYS PRIOR TO CONSTRUCTION FOR REQUIRED INSPECTIONS. THE CONTRACTOR SHALL PAY FOR ALL NECESSARY PERMITS, BONDS, AND INSURANCE.

SITE NOTES

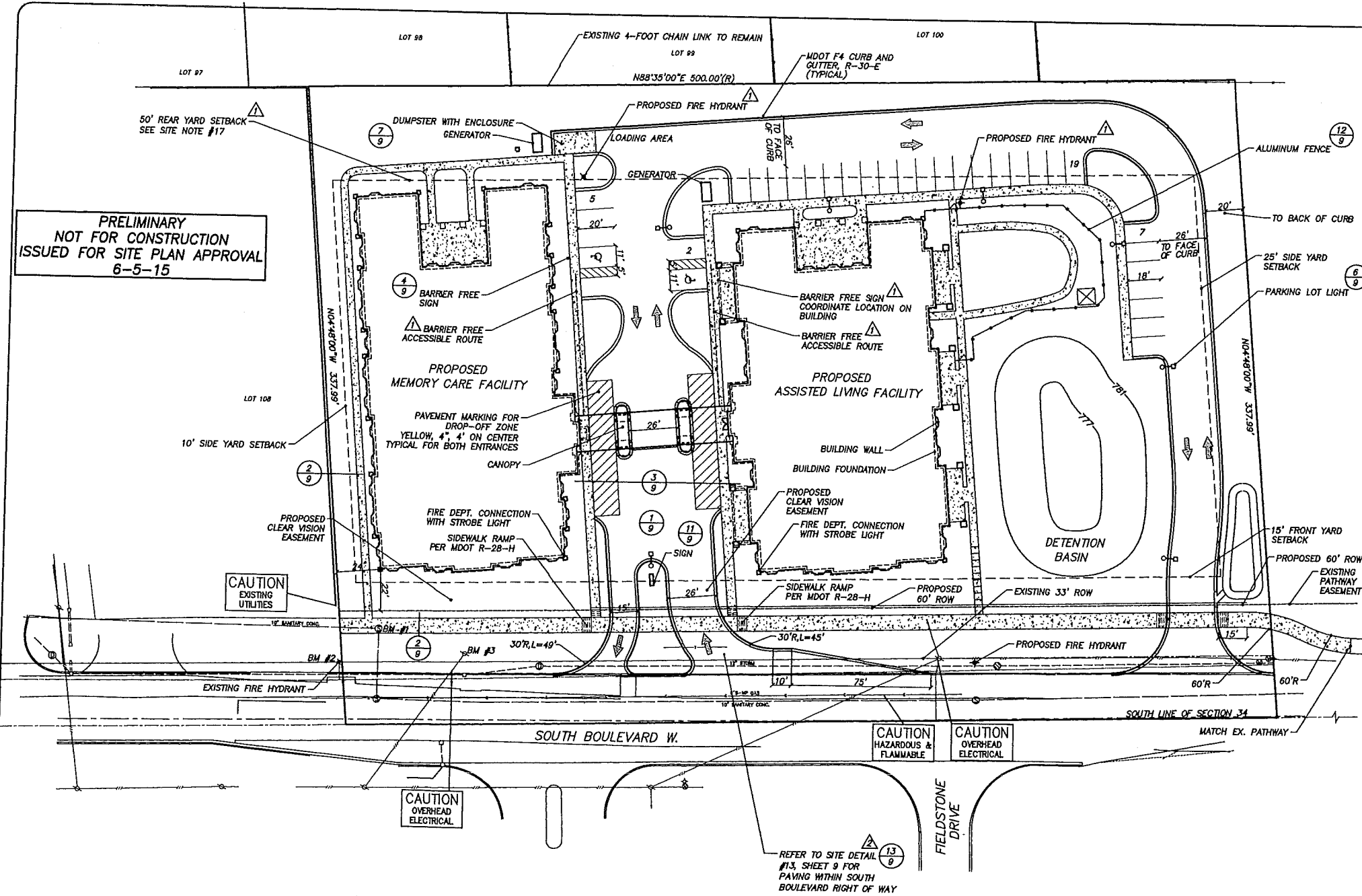
1. WORKMANSHIP AND MATERIALS FOR ALL BITUMINOUS PAVING SHALL BE IN ACCORDANCE WITH MDOT STANDARD SPECIFICATIONS, 2012 EDITION.
2. REFER TO MDOT STANDARD DETAIL R-30-0 FOR CONCRETE CURB AND GUTTER.
3. CONCRETE PAVING SHALL BE REINFORCED IN ACCORDANCE WITH DETAILS 2 AND 3 ON SHEET 9. PROVIDE EXPANSION AND CONTROL JOINTS IN ACCORDANCE WITH MDOT STANDARD DETAIL R-30-0 AND DETAIL 2 ON SHEET 9. COORDINATE SIDEWALK CONTROL JOINT LOCATIONS WITH CONCRETE PAVEMENT FOOTINGS.
4. STRIPE PARKING SPACES AS INDICATED IN ACCORDANCE WITH MDOT SPECIFICATION, SECTION 811. LINE PAINT FOR PARKING SPACE STRIPING SHALL BE YELLOW, 4" WIDE. BARRIER FREE STRIPING, AISLES AND SYMBOLS SHALL BE BLUE.
5. BARRIER FREE PARKING SPACE AND ACCESS AISLE SHALL HAVE A MAXIMUM SLOPE OF 1:50 (2%). PROVIDE SIGN AND PAINT STRIPING TO MEET AMERICANS WITH DISABILITIES ACT (ADA) REQUIREMENTS. MOUNT SIGN ON POST, 5'-0" ABOVE GROUND. ONE SIGN SHALL BE DESIGNATED AS "VAN ACCESSIBLE".
6. ALL PEDESTRIAN FACILITIES WHERE NOTED SHALL COMPLY WITH ADA REQUIREMENTS. MAXIMUM RAMP SLOPE SHALL BE 1:12 (8.33%) MAXIMUM SLOPE ON SIDE FARES SHALL BE 1:10 (10%). REFER TO MDOT STANDARD DETAIL R-28-1.
7. ALL PAVED PARKING AREAS SHALL BE ILLUMINATED.
8. SEE ARCHITECTURAL DRAWINGS FOR COMPLETE BUILDING DIMENSIONS.
9. THE CONTRACTOR SHALL COMPLY WITH ALL LOCAL, COUNTY, STATE, AND LOCAL REGULATIONS FOR ALL WORK THAT TAKES PLACE ON THE SITE.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING UP THE PREMISES, AND UPON COMPLETION OF THE PROJECT, LEAVE THE SITE IN AN ACCEPTABLE CONDITION AS DETERMINED BY THE LOCAL MUNICIPALITY.
11. THE CONTRACTOR SHALL OBTAIN A PERMIT FROM THE OAKLAND COUNTY ROAD COMMISSION FOR WORK PERFORMED WITHIN THE PUBLIC ROAD RIGHT-OF-WAY, INCLUDING APPLICATION, FEES, BONDS, AND INSURANCE.
12. THE CONTRACTOR SHALL PAY FOR AND OBTAIN ALL PERMITS REQUIRED BY FEDERAL, STATE, LOCAL, OR PRIVATE AGENCIES AND PAY ALL CHARGES FOR INSPECTION AND TESTING.
13. CONTRACTOR SHALL COORDINATE UTILITY SERVICES (GAS, ELECTRIC, TELEPHONE, CABLE, ETC.) WITH LOCAL AGENCIES. SEE CONTACT LIST ON COVER SHEET.
14. SEE ARCHITECTURAL SURVEY PLAN (SHEET 1) FOR COMPLETE LEGAL DESCRIPTION.
15. EXCAVATIONS WITH A 1:1 INFLUENCE OF THE SOUTH BOULEVARD ROADWAY WILL REQUIRE MDOT CLASS II BACKFILL COMPACTED TO 95% MAXIMUM DENSITY.
16. SIGHT DISTANCE OBSTRUCTIONS SHALL BE REMOVED AS DIRECTED BY ROAD COMMISSION FOR OAKLAND COUNTY (RCOC).
17. FIXED OBJECTS, INCLUDING UTILITY POLES AND FIRE HYDRANTS, SHALL BE LOCATED AT A MINIMUM OF 6 FEET BEHIND THE BACK OF CURB. FIXED OBJECTS SHALL BE RELOCATED PRIOR TO ROAD CONSTRUCTION.
18. ALL SIGNS SHALL MEET THE REQUIREMENTS OF SECTION 138-B.603 AND CHAPTER 134 OF THE CITY CODE OF ORDINANCES AND BE APPROVED UNDER A SEPARATE PERMIT ISSUED BY THE BUILDING DEPARTMENT.



LEGEND

Symbol	STORM SEWER & MANHOLE
Symbol	SANITARY SEWER & MANHOLE
Symbol	INTERUMN UTILITY & VALVE
Symbol	GAS MAIN & VALVE
Symbol	BURIED TELEPHONE & MANHOLE
Symbol	UNDER GROUND LIGHTING & MANHOLE
Symbol	OVERHEAD ELECTRIC, POLE, & OUT WIRE
Symbol	CATCH BASIN (CURB & ROAD)
Symbol	WATER MANHOLE
Symbol	CONCRETE LINE
Symbol	TRUCK
Symbol	BUILDING
Symbol	UTILITY POLE
Symbol	STREET SIGN
Symbol	WALKER
Symbol	WATER WALL

SITE PLAN



PRELIMINARY NOT FOR CONSTRUCTION ISSUED FOR SITE PLAN APPROVAL 6-5-15

FIRE DEPARTMENT NOTES

1. A KNOX KEY SYSTEM SHALL BE INSTALLED AT EACH BUILDING, IN A LOCATION APPROVED BY THE FIRE CODE OFFICIAL. ORDERING INFORMATION IS AVAILABLE FROM THE ROCHESTER HILLS FIRE DEPARTMENT (248) 656-4717.
2. FIRE LANES 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 THE MICHIGAN MANUAL OF UNIFORM TRAFFIC.
3. CONSTRUCTION SITES SHALL BE SAFEGUARDED IN ACCORDANCE WITH IFC 2006 CHAPTER 14.
4. 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.

SITE DATA

PARCEL ID NO.	70-15-34-352-012 AND -013
ZONING	FB - FLEXIBLE BUSINESS OVERLAY
GROSS AREA	3.87 ACRES
BUILDABLE AREA	2.69 ACRES
EXISTING LAND USE	VACANT/SINGLE FAMILY RESIDENTIAL
PROPOSED LAND USE	ASSISTED LIVING AND MEMORY CARE
ASSISTED LIVING RESIDENTIAL UNITS-25	18,326 SF GROSS
MEMORY CARE RESIDENTIAL UNITS-29	19,833 SF GROSS
LOT COVERAGE	23%
DENSITY	14 UNITS PER ACRE
PARKING REQUIRED	1 SP/2 ROOM (54 ROOMS) 27 SPACES
PARKING PROVIDED	33 SPACES
BUILDING CONSTRUCTION TYPE	5B

REVISION INDEX

1.	PER CITY OF ROCHESTER HILLS, 4-14-15
2.	PER ROAD COMMISSION FOR OAKLAND COUNTY, 5-4-15



Know what's below.
 Call before you dig.

LOCATION OF ALL UNDERGROUND UTILITIES AS SHOWN ARE APPROXIMATE. ALL LOCATIONS MUST BE FIELD VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION.



ARCHITECTURE
 ENGINEERING
 LANDSCAPE ARCHITECTURE
 SURVEYING

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PINES OF ROCHESTER HILLS
 920 SOUTH BOULEVARD WEST
 CITY OF ROCHESTER HILLS, MICHIGAN 48307
 SECTION 34, T3N, R11E, CITY OF ROCHESTER HILLS, OAKLAND COUNTY

PREPARED FOR
 AGE OF ROCHESTER HILLS, INC.
 1245 E. GRAND BLANC ROAD
 GRAND BLANC, MICHIGAN 48439
 (810) 701-0005

PROJECT NO. 13005500
 DATE DRAWN: 2-7-14
 DATE REVISED: 6-5-15
 AS-BUILT DATE:
 SHEET NUMBER
4
 CITY FILE #13-016.3

DETENTION BASIN CALCULATIONS

DETENTION VOLUME CALCULATIONS

Area (sf)	C-factor
Area 1 (Building)	0.95
Area 2 (Paving)	0.95
Area 3 (Grass)	0.25
Total Area =	138,700
Net C =	3.18 acres
$Q_p = (A) (0.2 \text{ cfs/acre}) =$	0.67 cfs
$Q_b = Q_p / AC =$	0.30 cfs/acre
Storage time for 25-year storm	
$T_{25} = -25 + (8062.5 / Q_p)^{1/2}$	138.86 minutes
$V_s = 12,900 (T_{25} / (T_{25} + 25) - 40 / Q_p) T_{25}$	9,264 cubic feet/acre-impervious
$V_t = V_s AC =$	19,648 cubic feet
	0.45 acre-feet

STORAGE CALCULATIONS

Elevation	Area (sf)	Volume (cft)	Accumulated Volume (cft)
777	2,016		
778	3,274	2,645	2,645
779	4,758	4,016	6,661
780	6,468	5,613	12,274
781	8,405	7,437	19,711

RECHARGE VOLUME CALCULATIONS

Recharge Volume = 3,849 cubic feet
 Recharge Volume Elevation = 778.46 feet

FIRST FLUSH CALCULATIONS

First Flush Volume = 3,849 cubic feet
 First Flush Elevation = 778.46 feet
 $Q_{ff} = V_{ff} / 24 \text{ hours} = 0.04$ cfs
 $H = 2H - \text{Pond Bottom} = 1.46$ feet
 $H_a = 2/3 H = 0.97$ feet
 Orifice Diameter = 1 inch
 Area of Orifice = 0.0055 square feet
 Use = 2 holes at elevation 777.00
 $Q_{ff} (\text{new}) = 0.0535$ cfs
 First Flush Duration = 20.0 hours

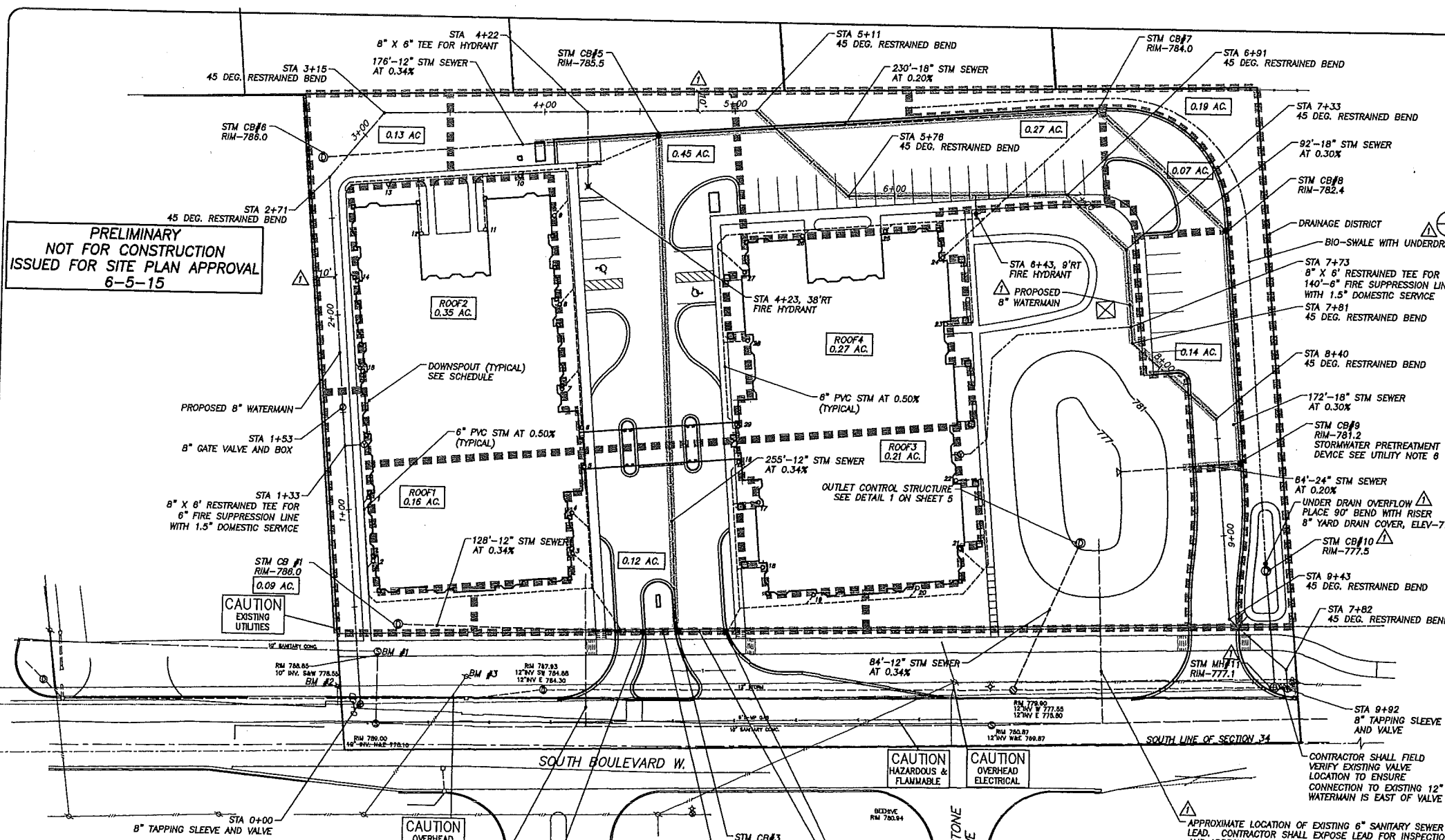
BANK FULL CALCULATIONS

Bank Full Flood Storage Volume = 10,944 cft.
 Bankfull Elevation (Z_{bf}) = 779.76 feet
 Maximum drainage duration = 40 hours
 Q_{ave} = 0.10 cfs
 Release Rate Confirmation
 $h_{-ave} = 2.33$ feet
 $Q_{ave} = 0.08$ cfs
 Time = 36.72 hours
 $h_{-ave} (\text{revised}) = 0.87$ feet
 Orifice Diameter = 1.00 inch
 Area of Orifice = 0.0055 square feet
 Number of Orifice Holes = 1.0
 Use = 2 holes at elevation 778.46
 $Q_{ff} (\text{new}) = 0.13$ cfs
 $T_{ff} = 34.77$ hours

STANDPIPE CALCULATIONS

Orifice Diameter (Inches)	Area (ft ²)	h (ft)	Flow per Orifice (cfs)	Holes per Elevation	Flow per Elevation (cfs)
1.00	0.0055	48.00	0.053	2	0.11
1.00	0.0055	30.54	0.042	2	0.08
2.00	0.0218	14.84	0.117	4	0.47
			SUM OF FLOW		0.66

PRELIMINARY NOT FOR CONSTRUCTION ISSUED FOR SITE PLAN APPROVAL 6-5-15



PIPE SIZING CALCULATIONS

DESIGN FLOOD FREQUENCY = 10 YEAR STORM
 INTENSITY CONSTANTS FOR $I = A(T+D)^N$

A =	175
D =	25
N =	1
n =	0.013
c =	0.75

DRAINAGE STRUCTURE	UPPER	LOWER	AREA A (Ac.)	A x C	SUM A x C	TIME OF CONC. (Minutes)	INTENSITY I (in/hr)	DISCHARGE Q (cfs)	PIPE DIAMETER (Inches)	LENGTH L (Feet)	VELOCITY V (fps)	TOTAL TIME (Minutes)	HYDR GRADE LINE	DESIGN GRADE %	DESIGN VELOCITY (fps)	DESIGN CAPACITY (cfs)
CB1	CB2	0.09	0.07	0.07	20.00	3.889	0.27	12	118	0.34	25.78	0.01	0.34	2.65	2.08	
ROOF1	CB2	0.16	0.12	0.12	20.00	3.889	0.47	6	40	0.98	20.28	0.70	0.70	2.40	0.47	
CB2	CB3	0.01	0.01	0.20	20.28	3.865	0.77	12	20	0.98	20.21	1.22	1.20	3.14	0.62	
ROOF4	CB4	0.21	0.16	0.16	20.00	3.889	0.62	6	40	3.16	20.21	0.93	0.34	2.65	2.08	
CB4	CB5	0.01	0.01	0.17	20.21	3.871	0.66	12	18	0.84	20.57	1.20	1.20	3.14	0.62	
CB5	CB5	0.10	0.08	0.45	20.62	3.836	1.73	12	255	2.20	22.55	0.24	0.39	2.84	2.23	
ROOF2	CB5	0.13	0.10	0.10	20.00	3.889	0.39	12	176	0.50	25.87	0.01	0.34	2.65	2.08	
CB5	CB5	0.35	0.26	0.26	20.00	3.889	1.01	8	60	2.89	20.35	0.70	0.70	2.90	1.01	
ROOF4	CB7	0.27	0.20	0.20	20.00	3.889	0.78	8	110	2.23	20.82	0.41	0.65	4.81	8.49	
CB7	CB8	0.27	0.20	1.55	27.58	3.328	5.16	18	92	2.92	28.11	0.24	1.74	7.86	13.89	
CB8	CB9	0.07	0.05	1.60	28.11	3.295	5.27	18	172	2.98	29.07	0.25	0.30	3.26	5.77	
ES10	CB9	0.19	0.14	0.14	20.00	3.889	0.54	12	36	0.69	20.87	0.02	0.34	2.65	2.08	
CB9	DETENTION	0.14	0.11	1.85	29.07	3.237	5.99	18	60	3.39	29.36	0.33	0.34	3.48	6.14	

STORM SEWER STRUCTURE SCHEDULE

NUMBER	DIA. & TYPE	COVER
CB #1	2' CB	MDOT "E", EJV 6508
CB #2	4' CB	MDOT "K", EJV 7045
CB #3	4' CB	MDOT "K", EJV 7045
CB #4	4' CB	MDOT "K", EJV 7045
CB #5	4' CB	MDOT "K", EJV 7045
CB #6	2' CB	MDOT "E", EJV 6508
CB #7	4' CB	MDOT "K", EJV 7045
CB #8	4' CB	MDOT "K", EJV 7045
CB #9	8' CB	MDOT "K", EJV 7045
CB #10	2' CB	MDOT "E", EJV 6508
MH #11	4' MH	MDOT "B", EJV 1080

*SEE UTILITY NOTE #8

NPDES STATEMENT

NPDES STORM WATER DISCHARGE PERMIT: THE OWNER OF THE PROPERTY SHALL OBTAIN A NPDES STORM WATER DISCHARGE PERMIT FOR CONSTRUCTION ACTIVITIES FROM MDEQ AS REQUIRED UNDER PUBLIC ACT 451. THE NOTICE OF COVERAGE SHALL BE SUBMITTED THROUGH GCDC-WMS WITH SOIL EROSION SOIL PERMIT APPLICATION. ALL MDEQ FEES SHALL ACCOMPANY THE NOTICE OF COVERAGE. EVIDENCE OF THIS PERMIT MAY BE REQUIRED PRIOR TO PLAN APPROVAL BY THE CITY OF ROCHESTER HILLS.

THE GROSS ACREAGE OF AREA DISTURBED IS 3.8 ACRES. A NPDES STORMWATER DISCHARGE PERMIT IS NOT REQUIRED.

REVISION INDEX

1.	PER CITY OF ROCHESTER HILLS, 4-14-15
2.	PER ROAD COMMISSION FOR OAKLAND COUNTY, 5-4-15

ROOF DRAIN SCHEDULE

NUMBER	RIM	UPPER INVERT	INVERT AT MAIN
1	787.3	784.0	-
2	787.3	783.8	783.0
3	787.3	783.3	783.0
4	787.3	783.5	-
5	787.3	783.7	-
6	787.3	783.0	-
7	787.3	782.8	-
8	787.3	782.6	-
9	787.3	782.4	782.0
10	787.3	782.4	782.0
11	787.3	782.7	-
12	787.3	782.8	782.0
13	787.3	782.9	782.0
14	787.3	783.3	-
15	787.3	783.5	-
16	787.0	782.7	-
17	787.0	782.5	-
18	787.0	782.3	782.0
19	787.0	782.3	782.0
20	787.0	782.6	-
21	787.0	782.9	-
22	787.0	783.2	-
23	787.0	781.9	-
24	787.0	781.8	781.0
25	787.0	781.7	781.0
26	787.0	782.0	-
27	787.0	782.4	-
28	787.0	782.7	-
29	787.0	783.0	-

UTILITY NOTES

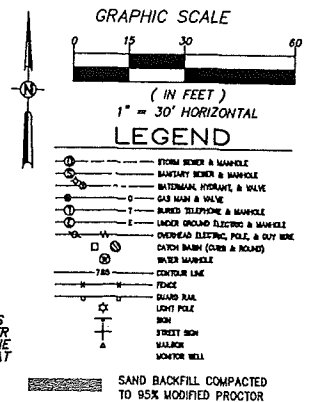
- REFER TO CITY OF ROCHESTER HILLS STANDARD DETAILS FOR ALL NOTES AND DETAILS RELATED TO PAVING, SANITARY SEWER, STORM SEWER AND WATERMAIN CONSTRUCTION.
- REFER TO SHEET B FOR STORM SEWER PROFILES.
- REFER TO SHEET B WATERMAIN PROFILES.
- ALL CATCH BASINS SHALL HAVE UNDERDRAIN IN ACCORDANCE WITH CITY OF ROCHESTER HILLS STANDARD, SEE DETAIL.
- STORMWATER PRETREATMENT DEVICE SHALL BE HYDRO INTERNATIONAL DOWN STREAM DEFENDER, 6" DIAMETER OR APPROVED EQUAL CAPABLE OF MEETING OAKLAND COUNTY WATER RESOURCE COMMISSION STANDARDS.

UTILITY STATEMENT

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING RECORD DRAWINGS. THE ENGINEER MAKES NO GUARANTEES THAT THE UTILITIES COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE ENGINEER FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. ALTHOUGH THE ENGINEER DOES CERTIFY THAT THE UTILITIES ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE.

UTILITY SERVICES

CONTRACTOR SHALL COORDINATE UTILITY SERVICES (GAS, ELECTRIC, TELEPHONE, CABLE, ETC.) WITH LOCAL AGENCIES. SEE CONTACT LIST ON COVER SHEET.



UTILITY PLAN



LOCATION OF ALL UNDERGROUND UTILITIES AS SHOWN ARE APPROXIMATE. ALL LOCATIONS MUST BE FIELD VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION.

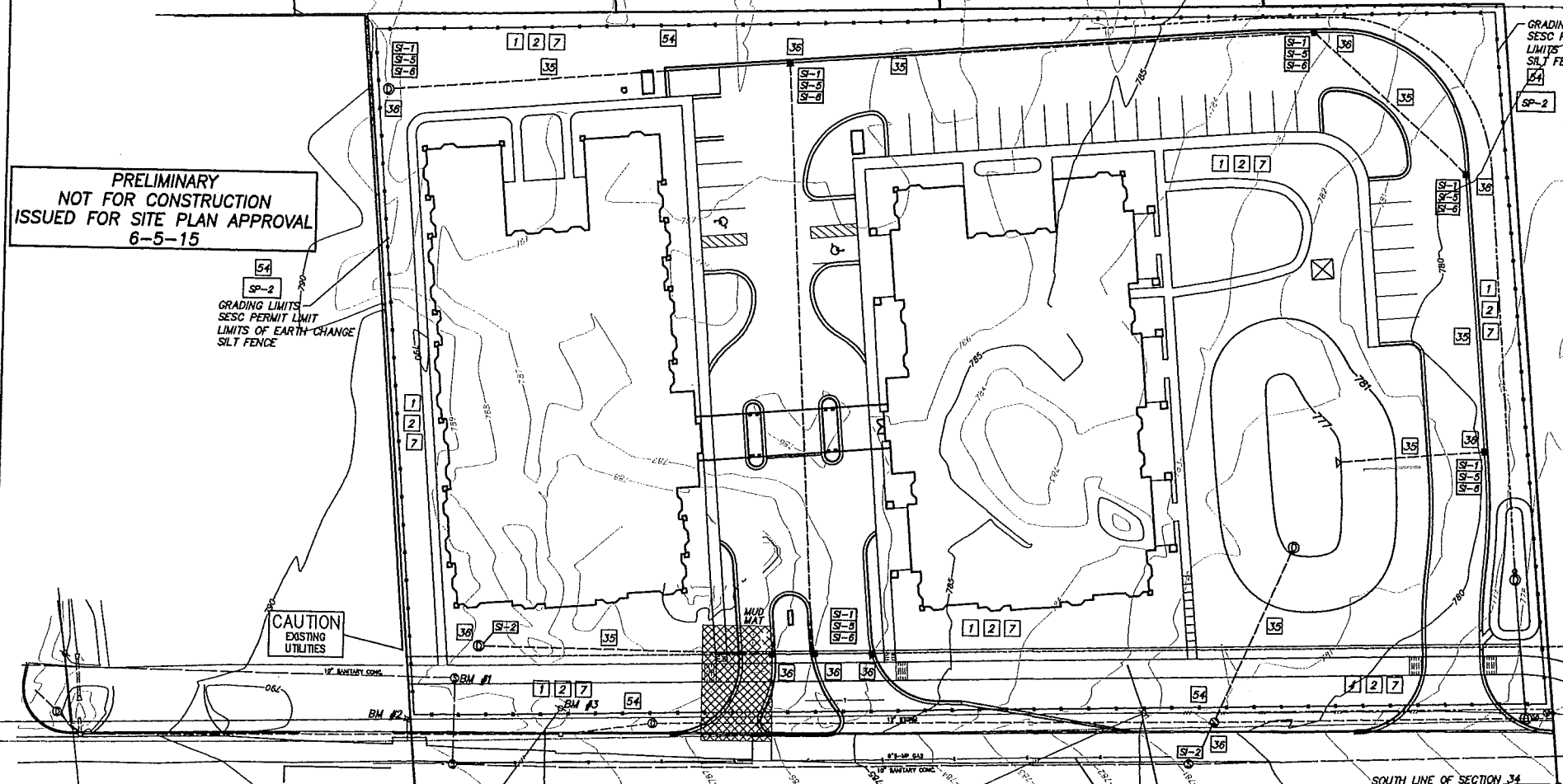


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PINES OF ROCHESTER HILLS
 920 SOUTH BOULEVARD WEST
 CITY OF ROCHESTER HILLS, MICHIGAN 48307
 SECTION 34, T3N, R11E, CITY OF ROCHESTER HILLS, OAKLAND COUNTY

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 6-5-15



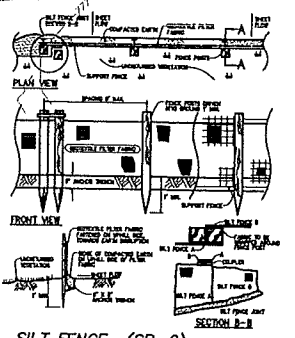
SOIL EROSION/SEDIMENT CONTROL NOTES

- CONSTRUCTION OPERATION SHALL BE SCHEDULED AND PERFORMED SO THAT PREVENTATIVE SOIL EROSION CONTROL MEASURES ARE IN PLACE PRIOR TO EXCAVATION IN CRITICAL AREAS AND TEMPORARY STABILIZATION MEASURES ARE IN PLACE IMMEDIATELY FOLLOWING BACKFILLING OPERATIONS.
- SPECIAL PRECAUTIONS SHALL BE TAKEN IN THE USE OF CONSTRUCTION EQUIPMENT TO PREVENT SITUATIONS THAT PROMOTE EROSION.
- CLEANUP SHALL BE DONE IN A MANNER TO ENSURE THAT EROSION CONTROL MEASURES ARE NOT DISTURBED.
- THE PROJECT SHALL CONTINUALLY BE INSPECTED FOR SOIL EROSION AND SEDIMENT CONTROL COMPLIANCE. DEFICIENCIES SHALL BE CORRECTED BY THE CONTRACTOR WITHIN 24 HOURS.
- PERMANENT STABILIZATION SHALL BE COMPLETED WITHIN 5 DAYS OF FINAL GRADE. IF PERMANENT STABILIZATION CANNOT BE COMPLETED WITHIN 5 DAYS, TEMPORARY SOIL EROSION CONTROL MEASURES MUST REMAIN IN PLACE AND BE MAINTAINED UNTIL PERMANENT STABILIZATION IS ACHIEVED.
- THE CONTRACTOR SHALL CONFORM TO PART 91 OF ACT 451 OF THE PUBLIC ACTS OF 1994 OF THE MICHIGAN COMPILED LAWS ENTITLED "THE SOIL EROSION AND SEDIMENT CONTROL ACT" DURING CONSTRUCTION AND CURRENT LOCAL ORDINANCES FOR EROSION AND SEDIMENTATION CONTROL.
- SILT FENCE LOCATION IS ALSO THE PHYSICAL LIMITS OF THE PROPOSED EARTH CHANGE.
- BURLAP IS NOT ALLOWED AND STRAW BALES CAN ONLY BE USED TO BACKUP SILT FENCES.
- THE CONTRACTOR SHALL PAY A FEE AND A BOND IS REQUIRED PRIOR TO ISSUANCE OF THE SOIL EROSION AND SEDIMENTATION CONTROL PERMIT.
- THE BOND RELEASE CONDITIONS FOR VEGETATIVE STABILIZATION ARE 97% COVER AND ONE INCH IN GROWTH. THE BOND SHALL NOT BE RELEASED UNTIL THE SITE IS PERMANENTLY STABILIZED.
- ON ALL SIDE SLOPES OF THE DETENTION BASIN AND THE RE-ROUTED SWALE PLACE STRAW BLANKET MULCH 0.5 LBS/SY WITH A HOTDEGRADABLE NETTING ON TOP SIDE SEWN ON 2 INCH CENTERS. FOR SLOPES EXCEEDING 3:1 USE A STRAW BLANKET WITH NETTING ON BOTH SIDES SEWN ON 2 INCH CENTERS.
- ALL PROPOSED AND EXISTING CATCH BASINS SHALL BE PROTECTED.
- CONTRACTOR SHALL INSPECT THE SOIL EROSION/SEDIMENT CONTROL DEVICES EACH WEEK AND/OR WITHIN 24 HOURS OF A PRECIPITATION EVENT WHICH RESULTS IN A STORM DISCHARGE FROM THE SITE. THE FOLLOWING STEPS SHALL BE IMPLEMENTED IF ANY DAMAGE HAS RESULTED FROM CONSTRUCTION OR WEAR.
- SEEDING SHALL BE PREPARED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS. THE CONTRACTOR/INSPECTOR SHALL INSPECT THE AREA AFTER SEEDING IS COMPLETED. AREAS THAT ARE BARE OR NOT MULCHED PROPERLY SHALL BE SPOT SEEDED AND/OR RE-MULCHED.
- SILT FENCE SHALL BE TRENCHED IN, BACK-FILLED, AND STAPLED OR STAKED ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS. MAINTENANCE INCLUDES THE REMOVING OF BUILT-UP SEDIMENT WHEN THE SEDIMENT ACCUMULATES TO 1/3 THE HEIGHT OF THE FENCE. CONTRACTOR SHALL REMOVE, REPLACE, RETRENCH, OR RE-BACKFILL THE FENCE IF IT FAILS. CONTRACTOR SHALL RE-INSTALL IF ANY PORTION OF THE FENCING WAS DAMAGED BY CONSTRUCTION MACHINERY.
- STOCK PILES SHALL BE SEEDED AND MULCHED AND RESEEDED IF SEEDING DOES NOT TAKE.
- ACCESS ROADS SHALL BE MAINTAINED AS NECESSARY. TO KEEP THEM EFFECTIVE, NEW LAYERS OF STONE SHALL BE ADDED AS OLD LAYERS BECOME COMPACTED. STEPS SHALL BE TAKEN TO REPAIR IF RUTS OR POOLING WATER APPEAR.
- INLET FILTERS SHALL BE INSPECTED FOR BUILD-UP OF SILT AND OTHER DEBRIS. THIS IS EVIDENT IF GEOTEXTILE/STONE STRUCTURE IS CAUSING FLOODING. MAINTENANCE SHALL CONSIST OF REMOVING OF SEDIMENTS WITH A STIFF BRISTLE BROOM OR SQUARE POINT SHOVEL. IF INLET FILTER IS BEYOND THIS LEVEL OF REPAIR, CONTRACTOR SHALL REPLACE BOTH THE STONE AND GEOTEXTILE FILTER.
- ANY TRACKING OF MUD OR DIRT ONTO PUBLIC OR PRIVATE ROADS SHALL BE REMOVED PROMPTLY.
- IF DUST BECOMES A PROBLEM, SPECIAL WATERING TECHNIQUES SHALL BE USED TO CONTROL DUST.

SOIL EROSION AND SEDIMENTATION CONTROL

MICHIGAN UNIFIED KEYING SYSTEM

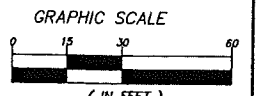
KEY	DETAIL	CHARACTERISTICS
1	Street Sweeping	Street Sweeping
2	Silt Fencing	Silt Fencing
7	Maintain Buffer Strips	Maintain Buffer Strips
35	Inlet Structures	Inlet Structures
36	Seeding and Mulch	Seeding and Mulch
54	Sediment Basins	Sediment Basins



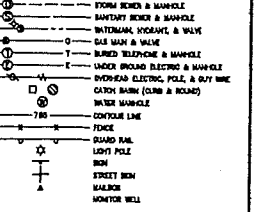
SILT FENCE (SP-2)
 NOT TO SCALE

TO BE COMPLETED BY CONTRACTOR PRIOR TO PERMIT ISSUANCE

MAINTENANCE SEQUENCE	MAINTENANCE SCHEDULE											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
STREET SWEEPING												
SILT FENCING												
MAINTAIN BUFFER STRIPS												
INLET STRUCTURES												
SEEDING AND MULCH												
SEDIMENT BASINS												
PERM-RAP												
REMOVE TEMPORARY MEASURES												
CONSTRUCTION SEQUENCE	CONSTRUCTION SCHEDULE											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
TEMPORARY SESO MEASURES												
ROUGH GRADING												
UNDERGROUND UTILITIES												
ROAD INSTALLATION												
BUILDING CONSTRUCTION												
PERMANENT SESO MEASURES												
FINAL GRADE												
LANDSCAPING												



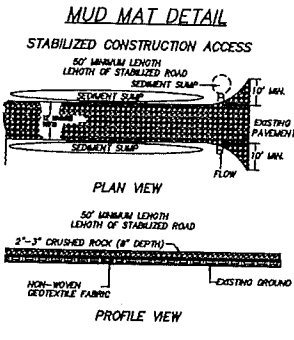
GRAPHIC SCALE
 0 15 30 60
 (IN FEET)
 1" = 30' HORIZONTAL



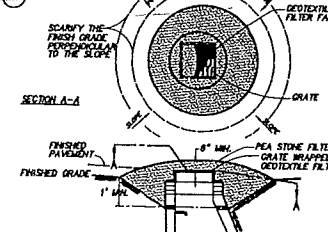
LEGEND
 STORM SEWER & MANHOLE
 WATER MAIN & MANHOLE
 NATURAL GAS & VALVE
 GAS MAIN & VALVE
 BURIED TELEPHONE & MANHOLE
 UNDERGROUND ELECTRIC & MANHOLE
 OVERHEAD ELECTRIC POLE & BOLT W/ CATCH BASIN (CUB & BOARD)
 WATER MANHOLE
 FENCE
 GUARD RAIL
 LIGHT POLE
 SIGN
 STREET SIGN
 MAILBOX
 MONITOR WELL

MUD MAT SPECIFICATIONS

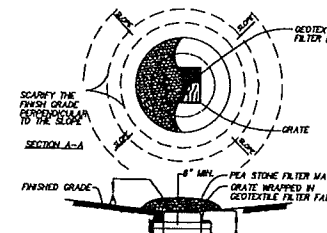
- STABILIZATION OF INTERIOR CONSTRUCTION ROADS IS REQUIRED TO MINIMIZE TRACKING OF SEDIMENT ONTO PUBLIC ROADWAYS AND TO MINIMIZE DISTURBANCE OF VEGETATION.
- STABILIZED CONSTRUCTION ENTRANCES SHALL BE LOCATED AT EVERY POINT WHERE CONSTRUCTION TRAFFIC ENTERS OR LEAVES A CONSTRUCTION SITE. VEHICLES LEAVING THE SITE MUST BE ROUTED OVER THE ROCK INGRESS/EGRESS CORRIDOR.
- STABILIZED CONSTRUCTION ACCESS ROAD SHOULD BE ESTABLISHED AT THE ONSET OF THE CONSTRUCTION ACTIVITIES AND MAINTAINED IN PLACE FOR THE DURATION OF THE CONSTRUCTION PROJECT.
 - INSTALLATION SHALL BE THE RESPONSIBILITY OF THE SITE CLEARING OF EXCAVATING CONTRACTOR.
 - ACCESS LOCATION SHOULD BE CLEARED OF WOODY VEGETATION.
 - NON-WOVEN GEO-TEXTILE FABRIC SHALL BE PLACED OVER THE EXISTING GROUND PRIOR TO PLACING STONE.
 - ACCESS LENGTH SHALL BE A MINIMUM OF 80'.
 - ACCESS WIDTH SHALL BE 12' MINIMUM, FLARED AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
 - CRUSHED AGGREGATE (2" TO 3"), OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT, SHALL BE PLACED AT LEAST 8" DEEP OVER THE LENGTH AND WIDTH OF THE INGRESS/EGRESS CORRIDOR.
- PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN EVENT. STABILIZED ENTRANCES SHALL BE REPAIRED AND ROCK ADDED AS NECESSARY.



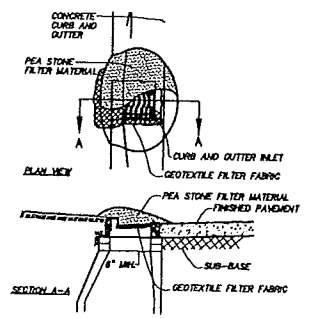
MUD MAT DETAIL
 NOT TO SCALE



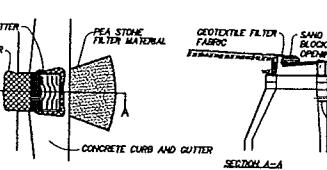
PARKING LOT INLET FILTER (SI-1)
 NOT TO SCALE



LOW POINT INLET FILTER (SI-2)
 NOT TO SCALE



CURB AND GUTTER INLET (SI-6) (AFTER PAVING)
 NOT TO SCALE



CURB AND GUTTER INLET (SI-5) (BEFORE PAVING)
 NOT TO SCALE

REVISION INDEX

1.	PER CITY OF ROCHESTER HILLS, 4-14-15
2.	PER ROAD COMMISSION FOR OAKLAND COUNTY, 5-4-15



Know what's below.
 Call before you dig.

LOCATION OF ALL UNDERGROUND UTILITIES AS SHOWN ARE APPROXIMATE. ALL LOCATIONS MUST BE FIELD VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION.

SOIL EROSION CONTROL PLAN

PREPARED FOR
 AGE OF ROCHESTER HILLS, INC.
 1245 E. GRAND BLANC ROAD
 GRAND BLANC, MICHIGAN 48439
 (810) 701-0005

PROJECT NO. 13005500
 DATE DRAWN: 2-7-14
 DATE REVISED: 6-5-15
 AS-BUILT DATE:
 SHEET NUMBER
 6
 CITY FILE #13-016.3



ARCHITECTURE
ENGINEERING
LANDSCAPE ARCHITECTURE
SURVEYING

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PINES OF ROCHESTER HILLS
 920 SOUTH BOULEVARD WEST
 CITY OF ROCHESTER HILLS, MICHIGAN 48307
 SECTION 34, T3N, R11E, CITY OF ROCHESTER HILLS, OAKLAND COUNTY

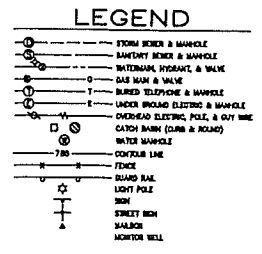
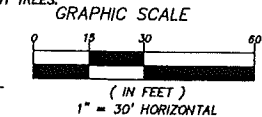
PREPARED FOR
AGE OF ROCHESTER HILLS, INC.
1245 E. GRAND BLANC ROAD
GRAND BLANC, MICHIGAN 48439
(517) 701-0005

PROJECT NO. 13005500
DATE DRAWN: 2-7-14
DATE REVISED: 6-5-15
AS-BUILT DATE:

SHEET NUMBER
7
CITY FILE #13-016.3

LANDSCAPE NOTES

- INSTALLATION OF PLANT MATERIAL SHALL BE IN ACCORDANCE WITH THE AMERICAN ASSOCIATION OF NURSERYMEN LANDSCAPE STANDARDS, LATEST EDITION.
- PLACE 4" OF SHREDDED CEDAR OR HARDWOOD BARK MULCH AROUND ALL TREES AND SHRUBS. PLACE 5" DIAMETER MULCHED RING AT THE BASE OF ALL TREES IN LAWN AREAS. CUT SOG OR COVER PLANTINGS.
- PLACE 4" MINIMUM DEPTH TOPSOIL OVER ALL LAWN AND LANDSCAPING AREAS. HYDRO-SEED LAWN IN ACCORDANCE WITH THE FOLLOWING MIXES: 30% KY. BLUEGRASS 94/80, 20% PEARL PER KY. 20% CR. RED FESCUE, 15% BLUEGRASS KY. BLUEGRASS, 15% NEWPORT KY. BLUEGRASS OR SOG.
- PROTECT SEED MIX WITH SLURRY MULCH. ON SLOPES BETWEEN 4:1 AND 3:1 USE A STRAW BLANKET 0.5 LB./SQ. YD WITH A PHOTODEGRADABLE NETTING ON TOP SIDE SEWN ON 2" HIGH CENTERS. FOR SLOPES BETWEEN 3:1 AND 2:1 USE A STRAW BLANKET WITH PHOTODEGRADABLE NETTING ON BOTH SIDES SEWN ON 2" HIGH CENTERS.
- ALL EXISTING LANDSCAPED AND LAWN AREAS WHICH ARE DAMAGED AS A RESULT OF THIS CONSTRUCTION ACTIVITY, WITHIN AND ADJACENT TO THE SITE SHALL BE RESTORED TO THEIR ORIGINAL CONDITION BY THE CONTRACTOR. SOG SHALL BE USED FOR REPAIRING EXISTING SOGGED AREAS.
- FOR BALLED DECIDUOUS TREES DO NOT STAKE UNLESS IN HEAVY CLAY SOIL, WINDY CONDITIONS, 3" OR GREATER DIAMETER TREE TRUNK OR LARGE CROWN. IF STAKING IS NEEDED DUE TO THESE CONDITIONS:
 - A STAKE WITH 2" X 2" HARDWOOD STAKES OR APPROVED EQUAL; DRIVEN 6" TO 8" OUTSIDE OF ROOT BALL.
 - LOOSELY STAKE TREE TRUNK TO ALLOW FOR TRUNK FLEXING.
 - STAKE TREES JUST BELOW FIRST BRANCH WITH 2" OR 3" WIDE LWB NYLON OR PLASTIC STRAPS (2) PER TREE OPPOSITE SIDES OF TREE, CONNECT FROM TREE TO STAKE HORIZONTALLY.
 - REMOVE ALL STAKING MATERIALS AFTER ONE YEAR.
 - SEE PLANTING DETAILS.
- ALL PLANTS AND LAWN AREAS SHALL BE WATERED, FERTILIZED, TRIMMED, MOWED AND GENERALLY MAINTAINED BY THE CONTRACTOR IN A HEALTHY GROWING CONDITION FOR A PERIOD OF 30 DAYS AFTER FINAL COMPLETION. ALL PLANTS AND TURF AREAS SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM THE FINAL COMPLETION DATE. SUBMIT GUARANTEE LETTER WITH DATES TO THE OWNER. THE OWNER IS RESPONSIBLE FOR MAINTAINING PLANTS AND LAWN AREAS BEGINNING 30 DAYS AFTER FINAL APPROVAL. LAWN/SEED AREAS SHALL BE MOWED AT 2 1/2"-3" HT.
- EARTH BERMS ARE TO BE CONSTRUCTED OF LIGHT ORGANIC SOILS. SIDE SLOPES SHALL BE NO STEEPER THAN ONE (1) ON FOUR (4).
- LAYOUT OF LANDSCAPE MATERIAL MAY BE ADJUSTED IN THE FIELD AT THE DISCRETION OF THE CONTRACTOR TO PROVIDE PROPER SPACING BETWEEN NEW AND EXISTING PLANTS AND TO ALLOW FOR MATURITY HEIGHT AND SPREAD OF PLANTS. AVOID CONFLICTS WITH OVERHEAD WIRES.
- EDGING WHERE NOTED ON PLAN SHALL BE COMMERCIAL GRADE PLASTIC INSTALLED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.
- IRRIGATION SYSTEM SHALL NOT BE CONSTRUCTED WITHIN A PUBLIC ROAD RIGHT OF WAY.
- ALL UNDERBRUSH AND DEAD TREES TO BE REMOVED FROM ENTIRE PARCEL.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL EXISTING RUBBISH ON SITE.
- PROVIDE 100% IRRIGATION COVERAGE TO ALL TURF AREAS, SHRUBS AND GROUND COVER BEDS. WATER SOURCE ORIGIN SHALL BEGIN AT COPPER STUB THROUGH EXTERIOR WALL BY OTHERS. SIZE OF STUB SHALL BE DETERMINED BY IRRIGATION DESIGNER AND PROVIDED TO ARCHITECT AND GENERAL CONTRACTOR WITH SHOP DRAWING OF PROPOSED LAYOUT. STANDING 110 V. ELECTRICAL OUTLET TO BE PROVIDED NEAR CONTROLLER LOCATION INSIDE BUILDING BY OTHERS. IRRIGATION ZONES FOR SHRUB AND GROUND COVER BEDS SHALL BE SEPARATE FROM TURF AREAS. IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL REQUIRED COMPONENTS INCLUDING BUT NOT LIMITED TO A BACKFLOW PREVENTER, FITTINGS, VALVES AND CONTROLLER. PLACE P.V.C. SOG 40 PIPE SLEEVES UNDER PAVING. PIPE SIZES SHALL BE LARGE ENOUGH TO ACCOMMODATE PROPOSED SPRINKLER LINES AND WIRING. ADJUST SYSTEM FOR PROPER COVERAGE EQUIVALENT. ALL LATERAL PIPING SHALL BE 80# U.S.F. CRESTLINE POLYETHYLENE PIPE. THE USE OF OTHER PRODUCTS OF EQUAL TYPE AND QUALITY MAY BE USED PROVIDED THAT THEY HAVE BEEN APPROVED IN WRITING BY THE OWNER OR HIS REPRESENTATIVE. 3/4" HOSE CONNECTION SHALL BE PROVIDED FOR AIR HOSE CONNECTION FOR COMPLETE SYSTEM WINTERIZATION "BLOW OUT". PROVIDE AS-BUILT DRAWING OF COMPLETED DESIGN, EQUIPMENT MANUALS AND OPERATION INSTRUCTIONS.
- ALL SHRUB AND GROUND COVER PLANTING BEDS SHALL HAVE A MINIMUM OF 12" DEEP PLANTING SOIL.
- EXCAVATION FOR ALL TREES SHALL PROVIDE A MINIMUM DIAMETER HOLE THAT IS TWO (2) TIMES THE ROOT BALL DIAMETER, BACKFILLED WITH PLANTING SOIL.
- APPLY GREEN GARDEN WEED CONTROL PREVENTER TO ALL TREE, SHRUB AND GROUND COVER PLANTING BEDS AFTER SPREADING MULCH AT THE RATE OF 1 OZ. PER 10 SQUARE FEET. REFER TO PRODUCT LABEL FOR COMPLETE APPLICATION INSTRUCTIONS AND PRECAUTIONS.
- PROTECT EXISTING TREES TO REMAIN. DO NOT ALTER GRADE WITHIN DRIP LINE.
- ALL LANDSCAPED AREAS SHALL BE IRRIGATED (SEE IRRIGATION PLAN). WATERING SHALL ONLY OCCUR BETWEEN THE HOURS OF 12 AM AND 5 AM.
- PRIOR APPROVAL IS REQUIRED TO PLANT ANY TREE OR SHRUB ON THE PUBLIC RIGHT-OF-WAY. ALL TREES AND SHRUBS MUST BE PLANTED AT LEAST 10' FROM THE EDGE OF THE PUBLIC ROAD. SHADE TREES AND SHRUBS MUST BE PLANTED AT LEAST 5' FROM THE EDGE OF THE PUBLIC WALKWAY. EVERGREEN AND ORNAMENTAL TREES MUST BE PLANTED AT LEAST 10' FROM THE EDGE OF THE PUBLIC WALKWAY. NO TREES OR SHRUBS MAY BE PLANTED WITHIN THE TRIANGULAR AREA FORMED AT THE INTERSECTION OF ANY STREET RIGHT-OF-WAY LINES AT A DISTANCE ALONG EACH LINE OF 25' FROM THEIR POINT OF INTERSECTION. NO TREES OR SHRUBS MAY BE PLANTED IN THE TRIANGULAR AREA FORMED AT THE INTERSECTION OF ANY DRIVEWAY WITH A PUBLIC WALKWAY AT A DISTANCE ALONG EACH LINE OF 15' FROM THEIR POINT OF INTERSECTION. EVERGREEN TREES MUST BE AT LEAST 15' AWAY FROM THE NEAREST OVERHEAD WIRE. TREES MUST BE PLANTED A MINIMUM OF 5' FROM AN UNDERGROUND UTILITY, UNLESS THE CITY'S LANDSCAPE ARCHITECT REQUIRES A GREATER DISTANCE.
- PRIOR TO THE RELEASE OF THE PERFORMANCE BONDS, THE CITY OF ROCHESTER HILL 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.



PLANT LIST

KEY SYMBOL	QTY.	COST	BOTANICAL / COMMON NAME	MINIMUM PLANT SIZE	MATURE HGT. & SPREAD
AZL	43	\$25	GENUS RHODODENDRON AZELA LAVENDER	NO. 2 CONT.	2' x 2'
BB	107	\$20	EUONYMUS ALATA COMPACTA COMPACT BURNING BUSH	NO. 3 CONT.	8' x 6'
BXWH	273	\$23	BUXUS SINICA BOXWOOD WEEWILLIE	NO. 3 CONT.	2' x 2'
EOA	175	\$32	THUJA OCCIDENTALIS EMERALD GREEN ARBORVITAE	30" X 30"	10' X 4'
HEMS	84	\$8	HEMEROCALLIS STELLA D'ORO DAYLILLY	NO. 2 CONT.	18" X 18"
OG	38	\$23	MISCANTHUS SINENSIS PURPURASCENS, MAIDEN GRASS	NO. 2 CONT.	3' x 3'
PCB	7	\$315	PYRUS CALLERYANA BRADFORD BRADFORD PEAR	3" DIA.	40' x 25'
PP	21	\$305	PICEA PUNGENS COLORADO SPRUCE	10' HT.	60' x 20'
RSM	5	\$310	ACER RUBRUM RED SUNSET MAPLE	3" DIA.	50' x 25'
SPA	8	\$18	SPIRAEA JAPONICA SPIREA ANTHONY WATERER	NO. 3 CONT.	2' x 3'
SR	48	\$24	ROSA RADRAZZ	NO. 2 CONT.	2' x 4'
CMP	8	\$205	LAGERSTROEMIA INDICA, ROSEA CREPE MYRTLE PINK	2" DIA.	10' x 6'
KF	43	\$10	CALAMAGROSTIS KARL FORESTER	NO. 2 CONT.	5' x 3'

LANDSCAPE NOTES

- REPLACEMENT TREES
REQUIRED CREDITS = 41
PROPOSED REPLACEMENT
DECIDUOUS = 10
ORNAMENTAL = 4
BALANCE TO BE PAID INTO TREE FUND
- SOUTH PROPERTY LINE - FRONTAGE/RIGHT OF WAY TREES. 500 L.F.
REQUIRED
1 DECIDUOUS TREE PER 35 L.F.
1 ORNAMENTAL TREE PER 35 L.F.
REQUIRED = 14 DECIDUOUS AND 14 ORNAMENTAL
PROPOSED
DECIDUOUS = 2
ORNAMENTAL = 4
BALANCE TO BE PAID INTO TREE FUND
- NORTH PROPERTY LINE - TYPE C BUFFER 500 L.F.
REQUIRED
2 DECIDUOUS TREE PER 100 L.F. = 10
1.5 ORNAMENTAL TREE PER 100 L.F. = 8
4 EVERGREENS TREE PER 100 L.F. = 20
8 SHRUBS PER 100 L.F. = 30
PROPOSED
DECIDUOUS = 0
ORNAMENTAL = 0
EVERGREEN = 0
SHRUB = 187
BALANCE TO BE PAID INTO TREE FUND
- EAST PROPERTY LINE - TYPE C BUFFER 337 L.F.
REQUIRED
2 DECIDUOUS TREE PER 100 L.F. = 7
1.5 ORNAMENTAL TREE PER 100 L.F. = 5
4 EVERGREENS TREE PER 100 L.F. = 13
6 SHRUBS PER 100 L.F. = 20
PROPOSED
DECIDUOUS = 0
ORNAMENTAL = 0
EVERGREEN = 13
SHRUB = 21
BALANCE TO BE PAID INTO TREE FUND
- PARKING LOT TREES
PARKING AND DRIVE AREA = 20,000 SF
5% OF PARKING AREA = 1,000 SF
REQUIRED
1 DECIDUOUS TREE PER 150 SF = 7
PERIMETER TREES - NOT APPLICABLE
PROPOSED TREES
DECIDUOUS = 4

REVISION INDEX

1. PER CITY OF ROCHESTER HILLS, 4-14-15
2. PER ROAD COMMISSION FOR OAKLAND COUNTY, 5-4-15

PRELIMINARY
NOT FOR CONSTRUCTION
ISSUED FOR SITE PLAN APPROVAL
6-5-15

CAUTION
EXISTING UTILITIES

CAUTION
OVERHEAD ELECTRICAL

CAUTION
HAZARDOUS & FLAMMABLE

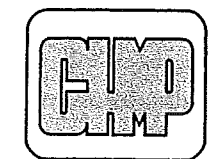
CAUTION
OVERHEAD ELECTRICAL



Know what's below.
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LANDSCAPE PLAN



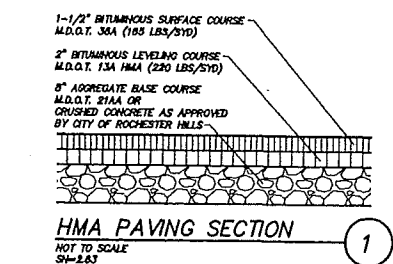
ARCHITECTURE
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 SURVEYING

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PINES OF ROCHESTER HILLS
 920 SOUTH BOULEVARD WEST
 CITY OF ROCHESTER HILLS, MICHIGAN 48307
 SECTION 34, T3N, R11E, CITY OF ROCHESTER HILLS, OAKLAND COUNTY

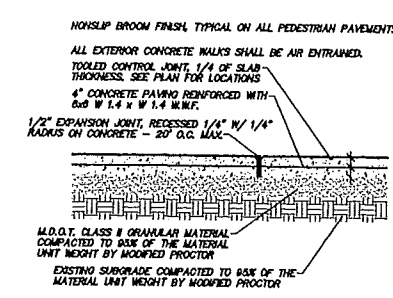
PREPARED FOR
 AGE OF ROCHESTER, INC.
 1245 E GRAND BLAND ROAD
 GRAND BLAND, MICHIGAN 48430
 (616) 701-0035

PROJECT NO. 13003500
 DATE DRAWN: 4-17-14
 DATE REVISED: 6-4-15
 AS-BUILT DATE:
 SHEET NUMBER
9
 CITY FILE #13-016.3

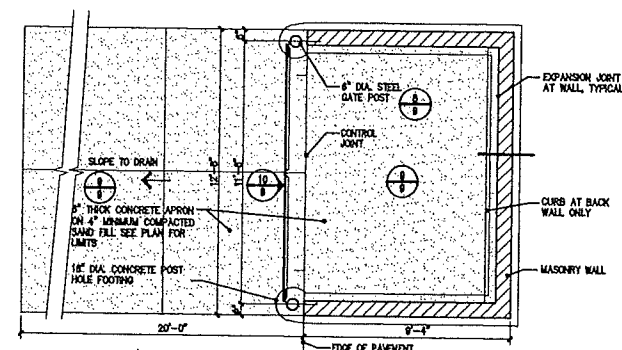
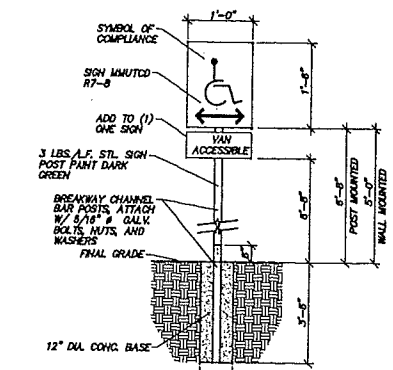
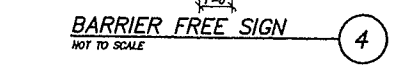


PRELIMINARY
 NOT FOR CONSTRUCTION
 ISSUED FOR SITE PLAN APPROVAL
 6-5-15

SITE DETAILS



4" CONCRETE PAVING
 NOT TO SCALE



MASONRY WALL AND GATE SHALL BE CONSTRUCTED OF MATERIALS AND COLORS CONSISTENT WITH PRINCIPAL BUILDINGS

D-Series Size 0 LED Area Luminaire

Specifications

EPA:	0.8 ft ² (0.7 m ²)
Length:	25" (640 mm)
Width:	13" (330 mm)
Height:	7" (178 mm)
Weight:	16 lbs (7.25 kg)

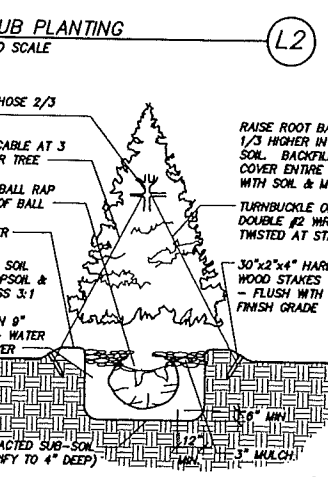
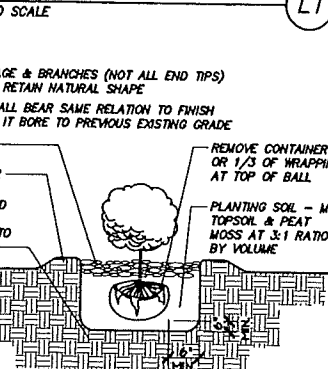
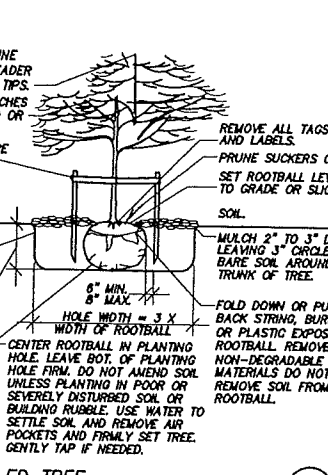
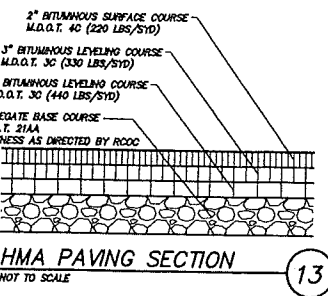
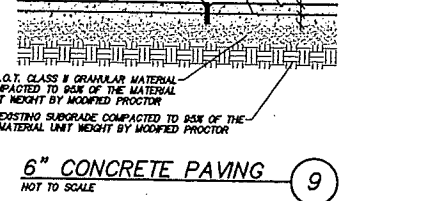
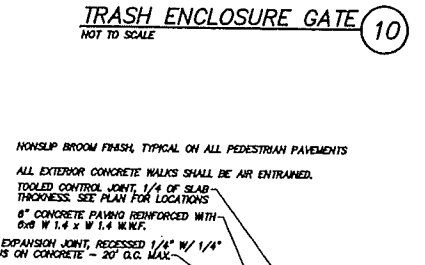
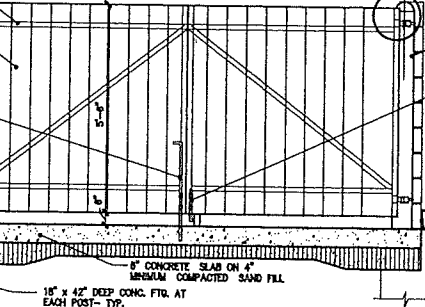
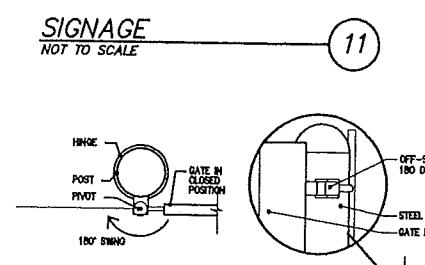
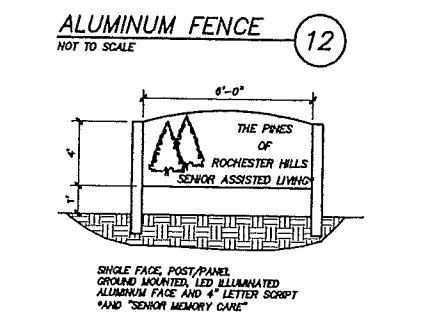
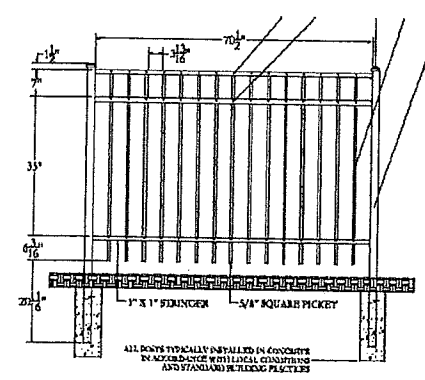
PARKING LOT LIGHT
 NOT TO SCALE

BLED10
 42" High rectangular bollard with (1) 10 watt (equivalent to 10 to 15 watt 120V) LED fixture for low level lighting applications. Great for pathway lighting of BLENDA Full Cut-off, Fully shielded optics. 8 year warranty.

LED Info

Wattage:	10W	Driver Type:	Constant Current
Color Temp:	5000K (Cool)	Voltage:	120V
Color Accuracy:	82	Power:	0.16A
L70 Lifetime:	100000	Power Factor:	0.12A
Life Span:	607	Input Voltage:	120V
Efficiency:	41 LPW	Efficiency:	76%

BOLLARD LIGHT (OPTIONAL)
 NOT TO SCALE



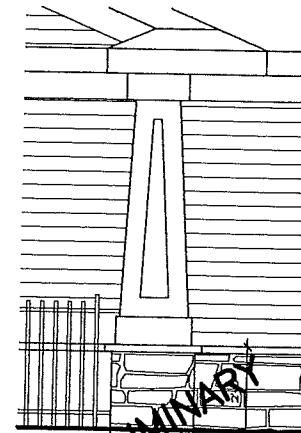
NO.	DESCRIPTION

3 WORKING DAYS BEFORE YOU DIG CALL MISS DIG 1-800-482-7771 (TOLL FREE)

LOCATION OF ALL UNDERGROUND UTILITIES AS SHOWN ARE APPROXIMATE. ALL LOCATIONS MUST BE FIELD VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION.



9100 Lapeer Rd, Suite B
 Davison, MI 48423
 (810) 412-5640



PRELIMINARY
 8-10-2015

TYPICAL PORCH PIER

1/2" = 1'-0" XELEV

NO.	DESCRIPTION	DATE
6		
5		
4		
3		
2	BFS SUBMITTAL	8-10-15
1	REVISED SET TO THE CITY	8-10-15

PINES OF ROCHESTER HILLS

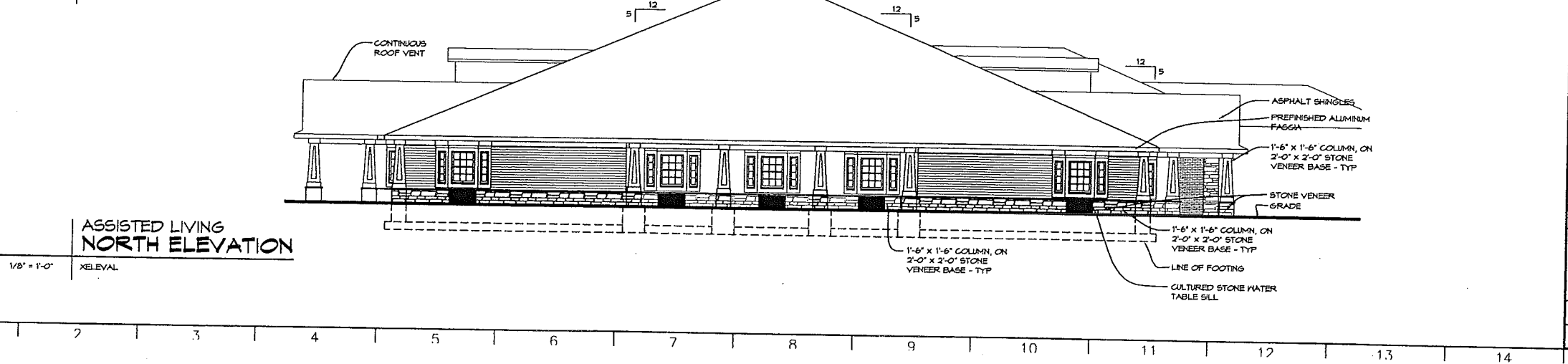
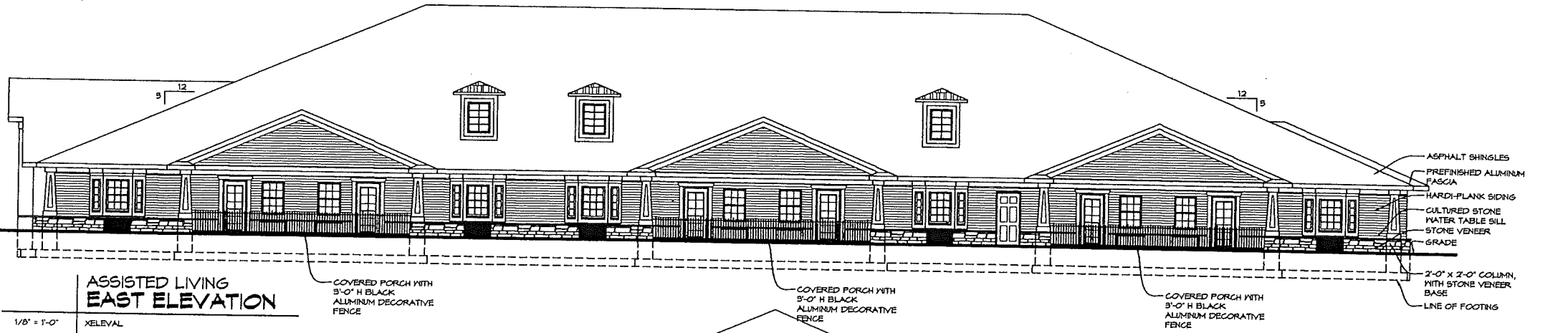
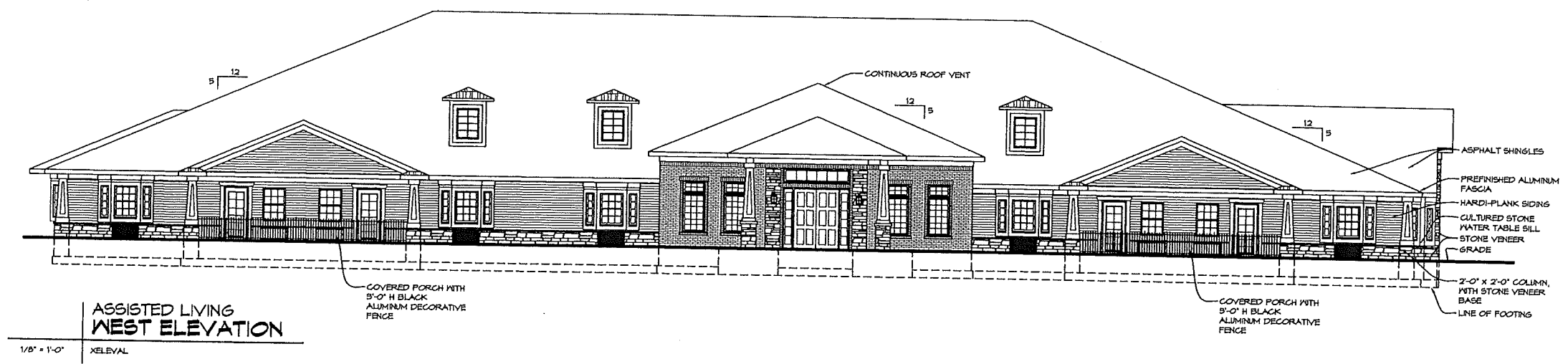
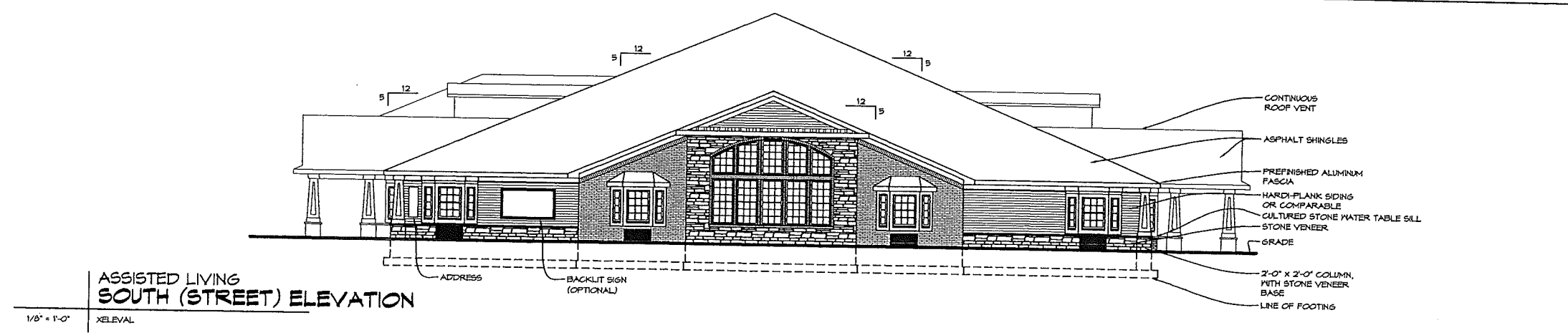
910 & 930 SOUTH BOULEVARD W
 ROCHESTER HILLS, MI

DRAWING TITLE
ASSISTED LIVING - EXTERIOR ELEVATIONS

PROJECT NO.	19-420
DATE	8-25-14
DRAWN	RLH
CHECKED	SAA

A201

CAD FILE NO.	RH-ASSISTED LIVING/A201
SCALE	1/8" = 1'-0" SHEET 9 OF 23



PLOT DATE: 6/17/2015 2:04 PM
 Z:\Projects\19-420\19-420\CAD\RH-ASSISTED LIVING\A201.dwg



9100 Lapeer Rd, Suite B
 Davison, MI 48423
 (810) 412-5640

GENERAL NOTES

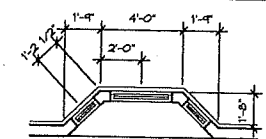
1. PROVIDE R-19 SOUND CONTROL INSULATION IN ALL 5-1/2" STUD WALLS BETWEEN UNITS AND R-21 SOUND CONTROL INSULATION IN ALL 5-1/2" STUD WALLS BETWEEN UNITS AND CORRIDORS, TYPICAL
2. ALL CORRIDORS, DINING ROOM, LIVING ROOMS, ENTRY AND PRIVATE DINING TO HAVE 6" BASEBOARDS

CONSTRUCTION NOTES

1. 1 1/2" X 5 1/2" HOOD HANDRAIL MOUNTED AT 210" AFF RE: 4/A302
2. HALL WITH SEATING RE:12/A302
3. SOFFIT AT CEILING HEIGHT CHANGE
4. 2'-0" X 2'-0" BASE IV STONE VENEER AND COLUMN
5. PROVIDE FIRE SUPPRESSION AT PORCH COVERED WALKWAY
6. STEEL STUD
7. WALL MOUNTED PH HI-LOW DRINKING FOUNTAIN

LEGEND

PRELIMINARY
 1 HOUR RATED SMOKE PARTITION EXTEND TO UNDER DECK
 ULL #1955
 ULLS AT HALL DOORS ULL #464
 MAIN LEVEL WALL ULL #205



TYPICAL BAY DETAIL

NO.	DESCRIPTION	DATE
6		
5		
4		
3		
2	BFS SUBMITTAL	5-10-15
1	REVISED SET TO CITY	5-10-15

PINES OF ROCHESTER HILLS

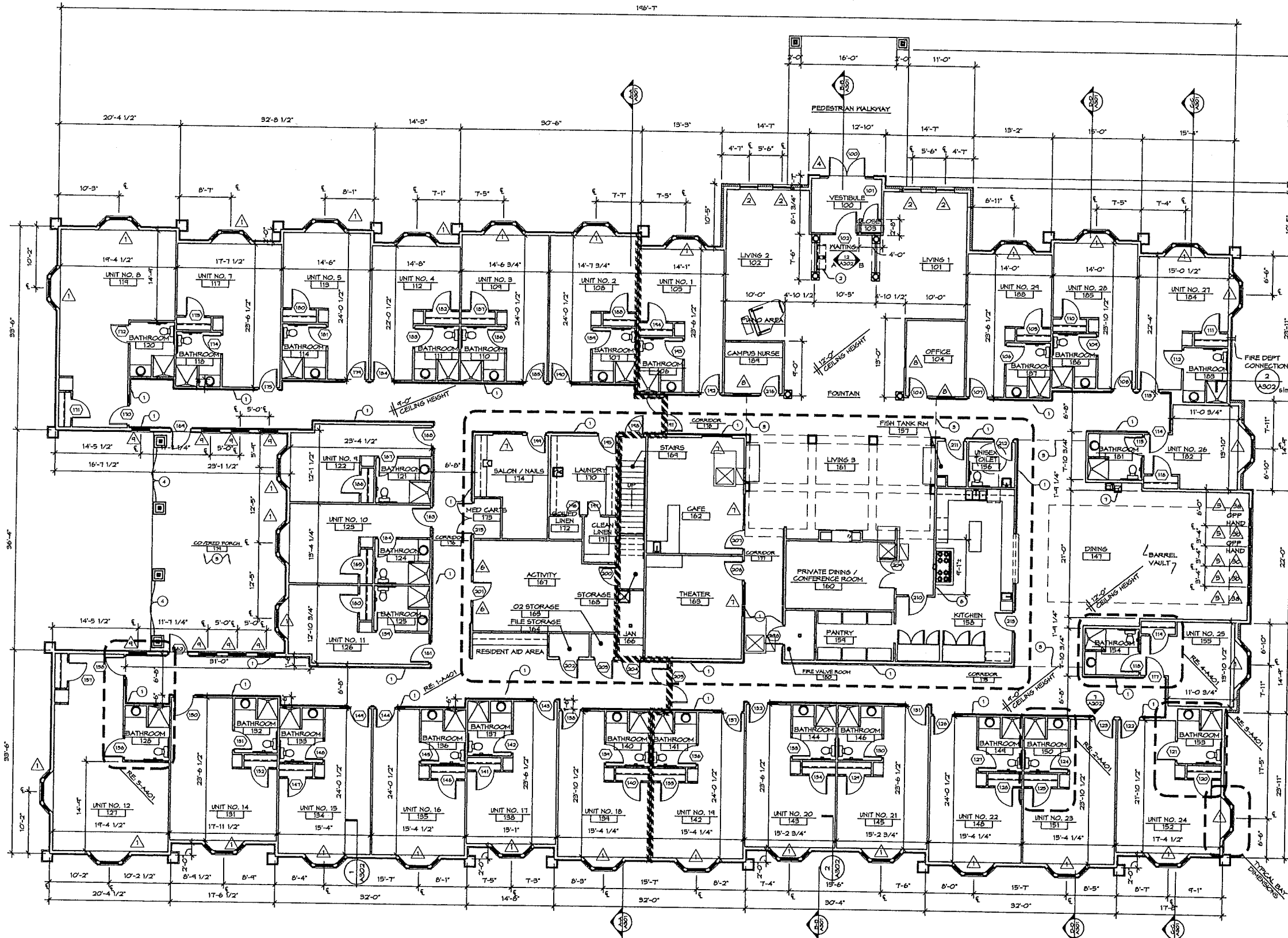
910 & 930 SOUTH BOULEVARD W
 ROCHESTER HILLS, MI

MEMORY CARE AND WALKWAY - FLOOR PLAN

PROJECT NO.	15-420
DATE	8-25-14
DRAWN	RLH
CHECKED	SAA

A101

CAD FILE NO.	RH-MEMORY CARE/A101
SCALE	1/8" = 1'-0" SHEET 7 OF 23



NOTE:
 UNIT NO. 6 - 115, BATHROOM - 116, UNIT NO. 13 - 124,
 BATHROOM - 130 ARE NOT USED
 DOORS 153, 154, 155, 176, 177, AND 178 ARE NOT USED

NOTE:
 PROVIDE "DIGITAL PHOTO BOX" ADJACENT TO EACH
 SLEEPING UNIT ENTRY DOOR ON THE CORRIDOR SIDE.

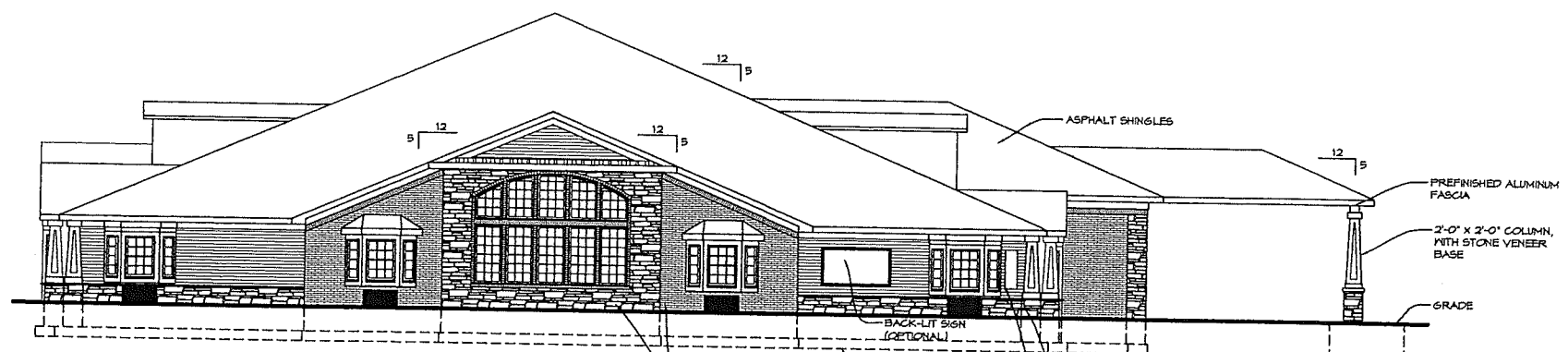
MEMORY CARE FLOOR PLAN
 X01
 14,833 SF

Z:\Projects\PinesofRochesterHills\3-430\CAD\RH-MEMORY CARE\A101.dwg
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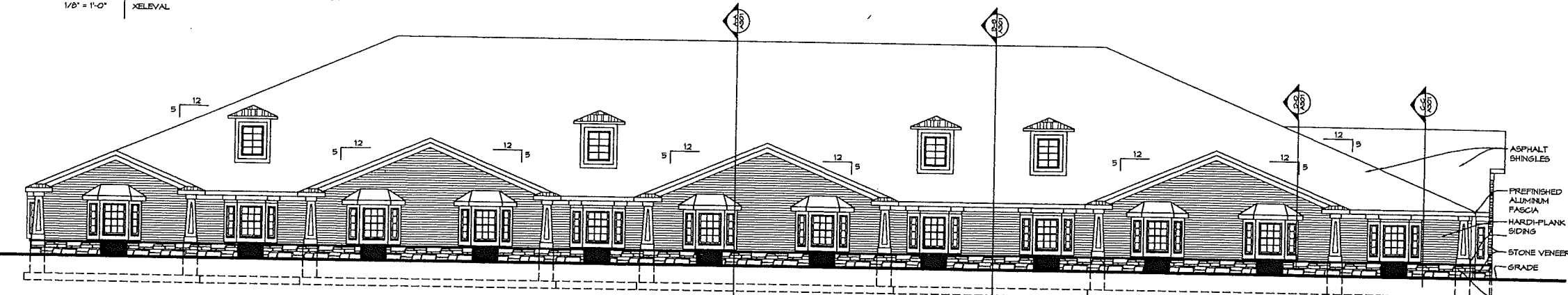


9100 Lapeer Rd, Suite B
 Davison, MI 48423
 (810) 412-5640

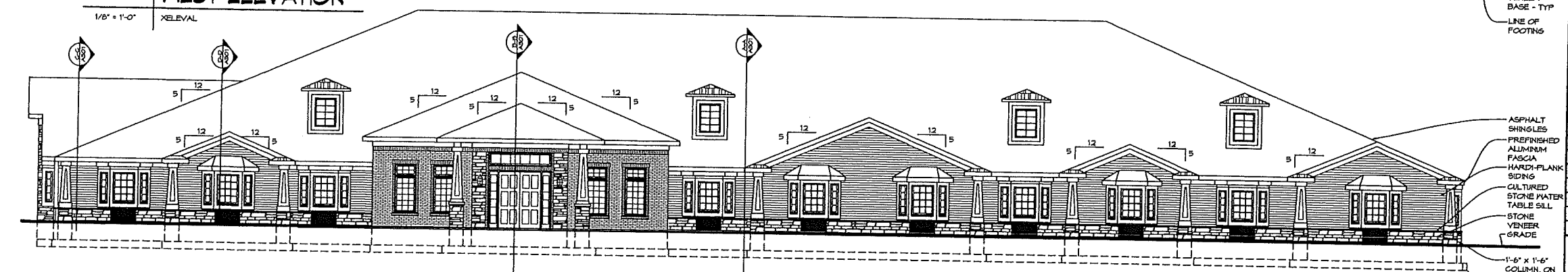
PRELIMINARY
 6-4-2015



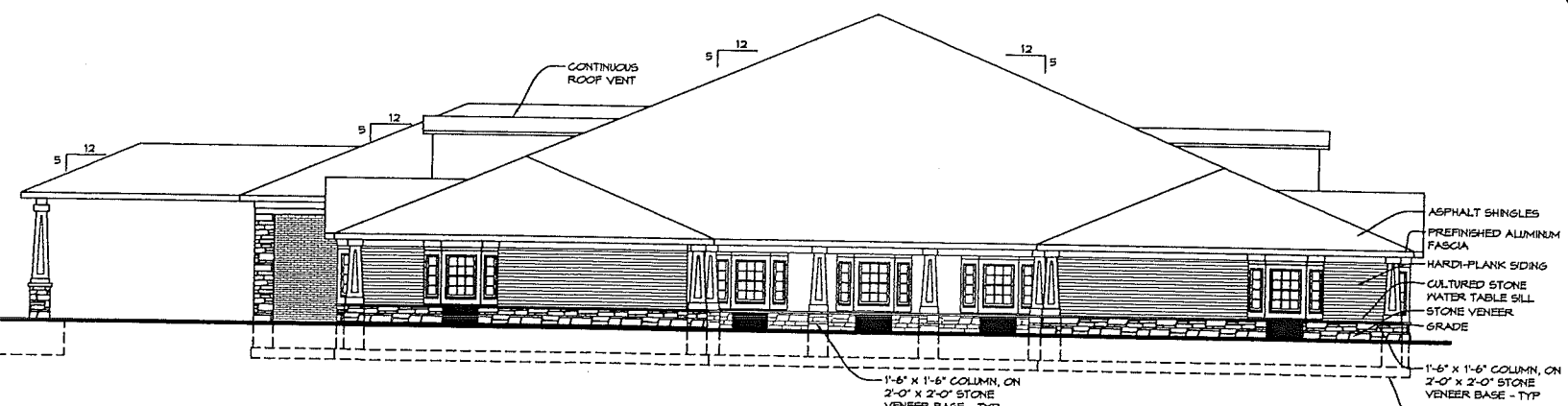
MEMORY CARE SOUTH (STREET) ELEVATION
 1/8" = 1'-0" XELEVATION



MEMORY CARE WEST ELEVATION
 1/8" = 1'-0" XELEVATION



MEMORY CARE EAST ELEVATION
 1/8" = 1'-0" XELEVATION



MEMORY CARE NORTH ELEVATION
 1/8" = 1'-0" XELEVATION

NO.	DESCRIPTION	DATE
6		
5		
4		
3		
2	BFS SUBMITTAL	5-10-15
1	REVISED SET TO CITY	3-10-15

FINES OF ROCHESTER HILLS
 910 & 930 SOUTH BOULEVARD W
 ROCHESTER HILLS, MI

DRAWING TITLE
MEMORY CARE & WALKWAY - EXTERIOR ELEVATIONS

PROJECT NO.	19-420
DATE	8-25-14
DRAWN	RLH
CHECKED	SAA

A201

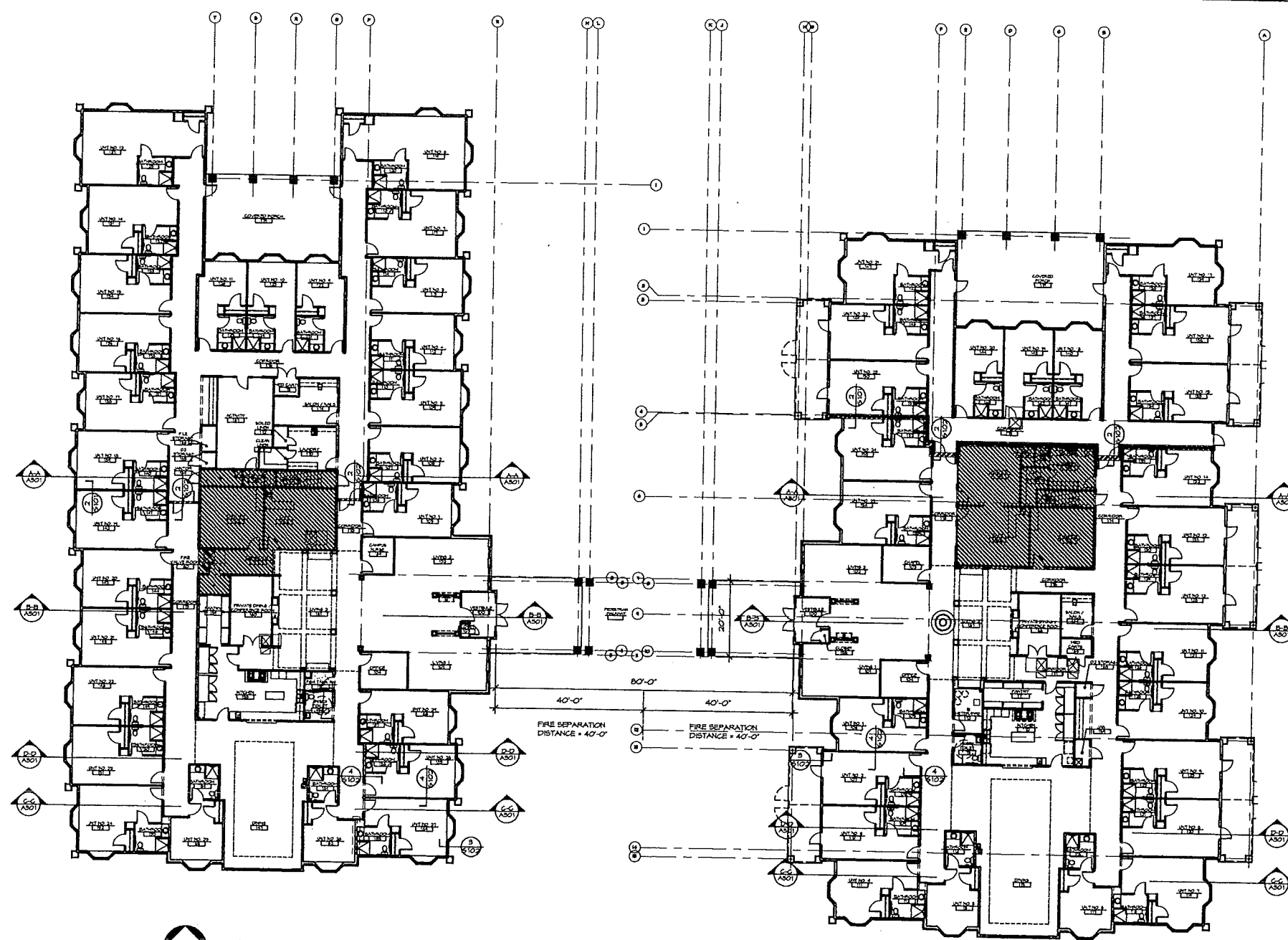
CAD FILE NO.	RH-MEMORY CARE/A201
SCALE	1/8" = 1'-0" SHEET 9 OF 23

PLOT DATE: 04/12/2015 2:54 PM
 Z:\Projects\19-420\19-420-CAD\RH-MEMORY CARE\A201.dwg



9100 Lapeer Rd, Suite B
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 (810) 412-5640

PRELIMINARY
 6-4-2015

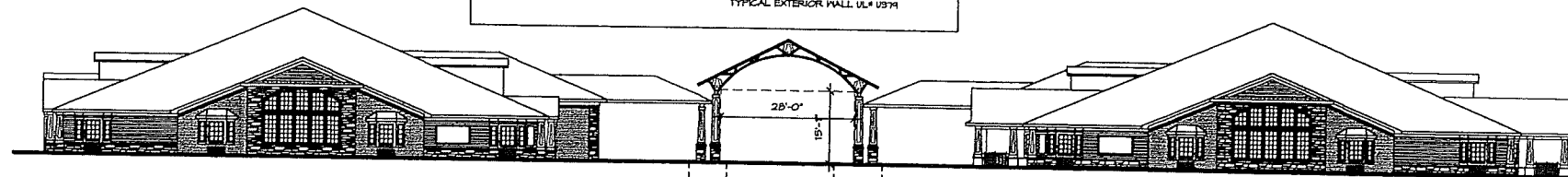


**BUILDING 1 - MEMORY CARE
 FLOOR PLAN**
 1/16" = 1'-0" X01
 14,839 SF

**BUILDING 2 - ASSISTED LIVING
 FLOOR PLAN**
 1/16" = 1'-0" X01
 18,326 SF

LEGEND

	1-HR FIRE BARRIER AND SMOKE BARRIER - EXTEND TO UNDERSIDE OF DECK	CEILING AT TRUSS = ULF558 ATTIC WALL AT TRUSS UL = U358 (CEILING AT SMOKE BARRIER DOORS = WALL ASSEMBLY FOR CONTINUITY ULF558)
	MEZZANINE OVER	TYPICAL INTERIOR WALL UL = U305 TYPICAL EXTERIOR WALL UL = U37R



SOUTH STREET ELEVATION
 1/16" = 1'-0" X01

FACADE TRANSPARENCY = 25%

NO.	DESCRIPTION	DATE
6		
5		
4		
3		
2	BFS SUBMITTAL	9-10-15
1	REVISED SET TO CITY	9-10-15

FINES OF ROCHESTER HILLS
 910 & 930 SOUTH BOULEVARD W
 ROCHESTER HILLS, MI

COMPOSITE FLOOR PLAN AND FIRE PLAN

PROJECT NO.	15-420
DATE	8-25-14
DRAWN	RLH
CHECKED	SAA

G101

CAD FILE NO.	RH-ASSISTED LIVING/G101
SCALE	1/16"=1'-0" SHEET 2 OF 23

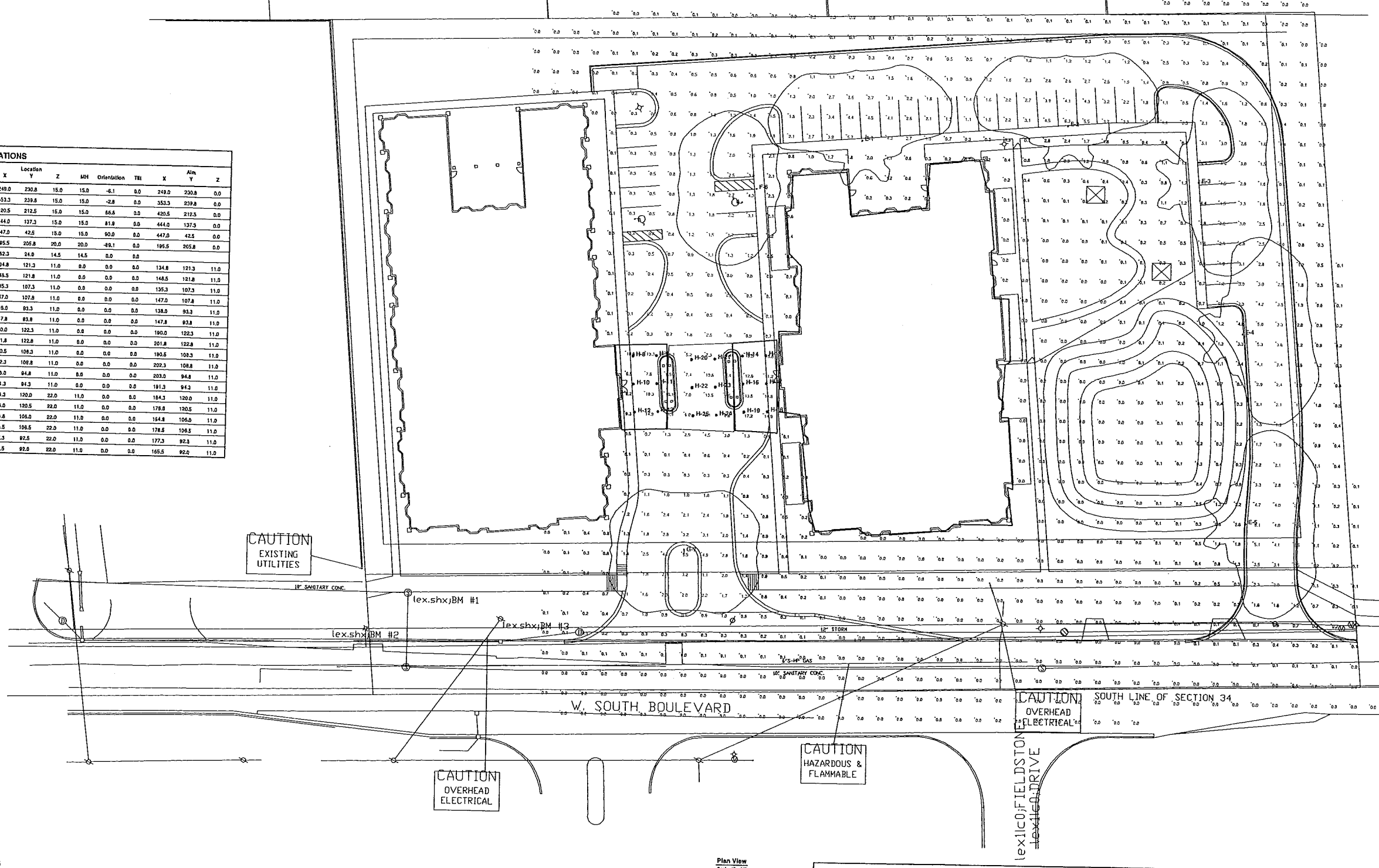
PLOT DATE: 6/11/2015 11:12 AM
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 K:\Users\jg\My Documents\15-420\CAD\15-420\15-420.dwg



PINES OF ROCHESTER HILLS
 POWERSOURCE ELECTRIC
 GASSER BUSH ASSOCIATES

Designer
 Date
 APRIL 19 2015
 Scale
 Drawing No.

LUMINAIRE LOCATIONS											
No.	Label	X	Y	Z	ORI	Orientation	THI	X	Y	Z	
1	E	249.0	230.8	15.0	15.0	-6.1	0.0	249.0	230.8	0.0	
2	E	353.3	239.8	15.0	15.0	-2.8	0.0	353.3	239.8	0.0	
3	E	420.5	212.5	15.0	15.0	66.6	0.0	420.5	212.5	0.0	
4	E	444.0	137.3	15.0	15.0	81.8	0.0	444.0	137.3	0.0	
5	E	447.0	42.6	15.0	15.0	90.0	0.0	447.0	42.6	0.0	
6	F	195.5	205.8	20.0	20.0	-89.1	0.0	195.5	205.8	0.0	
7	G	162.3	24.8	14.5	14.5	0.0	0.0				
8	H	124.8	121.2	11.0	0.0	0.0	0.0	124.8	121.2	11.0	
9	H	148.5	121.8	11.0	0.0	0.0	0.0	148.5	121.8	11.0	
10	H	135.3	107.3	11.0	0.0	0.0	0.0	135.3	107.3	11.0	
11	H	147.0	107.8	11.0	0.0	0.0	0.0	147.0	107.8	11.0	
12	H	158.0	93.3	11.0	0.0	0.0	0.0	158.0	93.3	11.0	
13	H	147.8	83.8	11.0	0.0	0.0	0.0	147.8	83.8	11.0	
14	H	190.0	122.3	11.0	0.0	0.0	0.0	190.0	122.3	11.0	
15	H	201.8	122.8	11.0	0.0	0.0	0.0	201.8	122.8	11.0	
16	H	190.5	108.3	11.0	0.0	0.0	0.0	190.5	108.3	11.0	
17	H	202.3	108.8	11.0	0.0	0.0	0.0	202.3	108.8	11.0	
18	H	203.0	94.8	11.0	0.0	0.0	0.0	203.0	94.8	11.0	
19	H	181.3	84.3	11.0	0.0	0.0	0.0	181.3	84.3	11.0	
20	H	184.3	120.0	11.0	0.0	0.0	0.0	184.3	120.0	11.0	
21	H	178.0	120.5	11.0	0.0	0.0	0.0	178.0	120.5	11.0	
22	H	164.8	105.0	11.0	0.0	0.0	0.0	164.8	105.0	11.0	
23	H	178.5	104.5	11.0	0.0	0.0	0.0	178.5	104.5	11.0	
24	H	177.3	92.5	11.0	0.0	0.0	0.0	177.3	92.5	11.0	
25	H	165.5	92.0	11.0	0.0	0.0	0.0	165.5	92.0	11.0	



NOTES

THE ENGINEER AND/OR ARCHITECT MUST DETERMINE APPLICABILITY OF THE LAYOUT TO EXISTING / FUTURE FIELD CONDITIONS. THIS LIGHTING LAYOUT REPRESENTS ILLUMINATION LEVELS CALCULATED FROM LABORATORY DATA TAKEN UNDER CONTROLLED CONDITIONS IN ACCORDANCE WITH ILLUMINATING ENGINEERING SOCIETY APPROVED METHODS. ACTUAL PERFORMANCE OF ANY MANUFACTURER'S LUMINAIRE MAY VARY DUE TO VARIATION IN ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, AND OTHER VARIABLE FIELD CONDITIONS. MOUNTING HEIGHTS INDICATED ARE FROM GRADE AND/OR FLOOR UP.

THESE LIGHTING CALCULATIONS ARE NOT A SUBSTITUTE FOR INDEPENDENT ENGINEERING ANALYSIS OF LIGHTING SYSTEM DURABILITY AND SAFETY. THE ENGINEER AND/OR ARCHITECT IS RESPONSIBLE TO REVIEW FOR MICROHAZ ENERGY CODE AND LIGHTING QUALITY COMPLIANCE.

STATISTICS					
Description	Symbol	Avg	Max	Min	Max/Min
OVERALL	+	1.0 fc	17.2 fc	0.0 fc	N/A
PARKING AREA	-	2.3 fc	17.2 fc	0.1 fc	172.0:1

LUMINAIRE SCHEDULE						
Symbol	Label	Qty	Catalog Number	Description	Lamp	File Lumens LLP Watts
E	5	DSX0 LED 40C 1000 50K T3M MVOLT	DSX0 LED WITH (2) 20 LED LIGHT EXHIBIT. TYPE T3M OPTIC, 5000K, @ 1000mA	LED	DSX0 LED 40C Absolute 0.90	138
F	1	DSX0 LED 40C 1000 50K T3M MVOLT	DSX0 LED WITH (2) 20 LED LIGHT EXHIBIT. TYPE T3M OPTIC, 5000K, @ 1000mA	LED	DSX0 LED 40C Absolute 0.90	138
O	1	DSX0 LED 20C 1000 50K T3M MVOLT TWIN	DSX0 LED WITH (1) 20 LED LIGHT EXHIBIT. TYPE T3M OPTIC, 5000K, @ 1000mA	LED	DSX0 LED 20C Absolute 0.90	144
H	18	LDM 4023 L08AR	3000LM ARCH 4000K 4" LED COMMERCIAL DOWNLIGHT	LED	LDM_40_20_L Absolute 0.90	35.00

Plan View
Scale 1"=20'

REVISIONS

Description	Date
▲	06/23/14
▲	06/24/14
▲	08/05/14
▲	03/09/15
▲	03/10/15

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL	QTY	PSI
⊙	Rain Bird 1804 15 Strip Series	2	90
⊙	Rain Bird 1804 10 Series MPR	34	90
⊙	Rain Bird 1804 12 Series MPR	14	90
⊙	Rain Bird 1804 15 Series MPR	45	90
⊙	Rain Bird 1804 ADJ	11	90

SYMBOL	MANUFACTURER/MODEL	QTY	PSI	GPM	RADIUS
⊙	Rain Bird 5004-FC, FC	15	95	1.95	34'
⊙	Rain Bird 5004-FC, FC	34	95	2.71	38'
⊙	Rain Bird 5004-FC, FC-LA	21	95	1.56	30'

SYMBOL	MANUFACTURER/MODEL	QTY
⊙	Rain Bird PSA Angle 1"	0
⊙	Rain Bird PSA Angle 1-1/2"	6
⊙	Rain Bird 5-RC 1"	5
⊙	Febco 765 1-1/2"	2
⊙	Rain Bird ESPBLXME with (O) ESPLXMS44	1
⊙	Rain Bird ESPBLXME	1
⊙	Rain Bird Rain Check	2
⊙	Point of Connection, 1.5"	2

SYMBOL	MANUFACTURER/MODEL	QTY
—	Irrigation Lateral Line: Polyethylene Pipe SDR-7 1"	3,153 L.F.
—	Irrigation Lateral Line: Polyethylene Pipe SDR-7 1 1/2"	206.5 L.F.
—	Irrigation Lateral Line: Polyethylene Pipe SDR-7 2"	204.2 L.F.
—	Irrigation Mainline: Polyethylene Pipe SDR-7 1 1/2"	282.8 L.F.
—	Irrigation Mainline: Polyethylene Pipe SDR-7 2"	670.1 L.F.
—	Pipe Sleeve: PVC Schedule 40 4"	108.6 L.F.

SYMBOL	MANUFACTURER/MODEL	QTY
⊙	Valve Number	
⊙	Valve Flow	
⊙	Valve Size	

IRRIGATION SPECIFICATIONS

- IRRIGATION SYSTEM DESIGN BASED ON 37 GPM AT 50 PSI.
- IRRIGATION DESIGN IS FROM THE POINT OF CONNECTION (POC) ONLY. THE DESIGN IS BASED ON GALLONS PER MINUTE (GPM) AND POUNDS PER SQUARE INCH (PSI) FURNISHED BY OTHERS.
- IRRIGATION CONTRACTOR IS TO VERIFY POINT OF CONNECTION IN THE FIELD. INSTALLER IS TO CONFIRM THE MINIMUM DISCHARGE REQUIREMENTS OF THE POINT OF CONNECTION AS INDICATED ON THE LEGEND PRIOR TO INSTALLATION.
- THE PRESSURE REQUIREMENT AT THE POINT OF CONNECTION IS BASED ON NO MORE THAN 5 FEET OF ELEVATION CHANGE IN THE AREAS OF IRRIGATION.
- ALL PRODUCTS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND ACCORDING TO LOCAL BUILDING, ELECTRICAL, AND PLUMBING CODES.
- IRRIGATION CONTRACTOR WILL ARRANGE INSPECTIONS REQUIRED BY LOCAL AGENCIES AND ORDINANCES DURING THE COURSE OF CONSTRUCTION AS REQUIRED. ALL WIRING TO BE PER LOCAL CODE. BACKFLOW PREVENTION TO BE PER LOCAL CODE.
- LOCATION OF IRRIGATION COMPONENTS SHOWN ON DRAWING IS APPROXIMATE. ACTUAL PLACEMENT MAY VARY SLIGHTLY AS REQUIRED TO ACHIEVE FULL, EVEN COVERAGE.
- ALL SPRINKLER HEADS SHALL BE INSTALLED PERPENDICULAR TO FINISH GRADES. EXCEPT AS OTHERWISE INDICATED.
- INSTALL IRRIGATION MAINS WITH A MINIMUM 18" OF COVER BASED ON FINISH GRADES. INSTALL IRRIGATION LATERALS WITH MINIMUM 12" OF COVER BASED ON FINISH GRADES.
- PIPE LOCATIONS ARE DIAGRAMMATIC. VALVES AND MAINLINE SHOWN IN PAVED AREAS ARE FOR GRAPHIC CLARITY ONLY.
- THE IRRIGATION CONTRACTOR SHALL COMPLY WITH PIPE SIZES AS INDICATED.
- ALL WIRE SPLICES OR CONNECTIONS SHALL BE MADE WITH APPROVED WATERPROOF WIRE CONNECTIONS AND BE IN A VALVE OR SPLICE BOX.
- ALL CONTROL WIRING DOWNSTREAM OF THE CONTROLLER IS TO BE 14 AWG, UL APPROVED DIRECT BURY.
- THE DESIGN IS BASED ON THE SITE INFORMATION AND/OR DRAWING SUPPLIED WITH THE DESIGN CRITERIA BEING SET (AREA TO BE IRRIGATED, EQUIPMENT MANUFACTURER AND MODEL TO BE USED, WATER SOURCE INFORMATION, ELECTRICAL POWER AVAILABILITY, ETC...). JOHN DEERE LANDSCAPES BEARS NO RESPONSIBILITY OR LIABILITY FOR ANY ERRORS IN DESIGN OR INSTALLATION THAT ARISE DUE TO INACCURACIES IN THE ABOVE REFERENCED INFORMATION SUPPLIED TO JOHN DEERE LANDSCAPES IN RELATION TO THIS PROJECT, UNLESS OTHERWISE NOTED.

PROPOSED IRRIGATION LOCATIONS WITHIN THE SOUTH BOULEVARD RIGHT OF WAY REQUIRES A RIOC RIGHT-OF-WAY USE PERMIT.
IRRIGATION SPRAY SHALL NOT BROADCAST ONTO THE ROADWAY OR PATHWAY

