PROPOSED LATHRUP VILLAGE DEVELOPMENT
Lathrup Village,
Oakland County, Michigan
SITE PLAN APPROVAL PACKAGE
Prepared For
FFJ DEVELOPMENT L.L.C.

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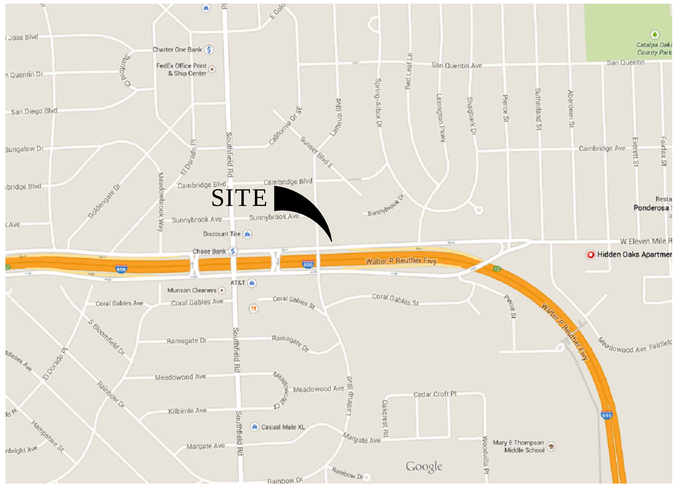
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Location Map
N.T.S.

SHEET INDEX

C-1 COVER SHEET
C-2 ENGINEERING SITE PLAN
C-3 SOIL EROSION CONTROL PLAN
C-4 DETAILS
C-5 TOPOGRAPHIC SURVEY
L-1 LANDSCAPE PLANS
L-2 LANDSCAPE NOTES & DETAILS
PHOTOMETRIC PLAN
ARCHITECTURAL PLANS

PERMIT SCHEDULE

NAME OF PERMIT	ISSUED	PERMIT #
Soil Erosion		

SUBMITTAL DATES :

03-03-2015	FIRST SUBMITTAL
06-01-2015	SECOND SUBMITTAL
11-03-2015	REVISED PER CLIENT
11-14-2018	SITE PLAN RE-INSTATEMENT

LEGAL DESCRIPTION

A PARCEL IN THE SOUTHWEAT 1/2 OF THE WEST 1/2 OF SECTION 13,
T.1N., R.10E., SOUTHFIELD TOWNSHIP, OAKLAND COUNTY, MICHIGAN,
LOTS 1804 THRU 1828 OF LOUIS LATHRUP'S CALIFORNIA BUNGALOW SUB No. 3

PARCEL ID #'S: 24-13-360-002 THROUGH 24-13-360-006
24-13-360-029 THROUGH 24-13-360-031

OE Engineering
Civil Engineers • Land Planning
Land Surveying

Orman Engineering, LLC
5476 Vivian Lane
Waterford, MI 48327
P: 248.682.6001
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CITY FILE #
Orman Engineering LLC #1081

LEGEND

MANHOLE — EXISTING SANITARY SEWER
HYDRANT, GATE VALVE — SAN. CLEAN OUT
MANHOLE, CATCH BASIN — EXISTING WATERMAIN
EXISTING STORM SEWER
EX. R. Y. CATCH BASIN
UTILITY POLE, GUY POLE, GUY WIRE — EXISTING BURIED CABLES
OVERHEAD LINES
LIGHT POLE
SIGN

C.O., MANHOLE, HYDRANT, GATE VALVE — EXISTING GAS MAIN
PR. SANITARY SEWER
PR. WATER MAIN
INLET, C.B., MANHOLE — PR. STORM SEWER
PR. R. Y. CATCH BASIN
PROPOSED LIGHT POLE
WETLAND BUFFER (25' FROM WETLAND)
WETLAND

FLOOD ZONE
TOP OF BANK
BUFFER (FROM T/BANK)
TC 600.00 — PR. TOP OF CURB ELEVATION
GU 600.00 — PR. GUTTER ELEVATION
BC 600.00 — PR. BACK OF CURB
TW 600.00 — PR. TOP OF WALK ELEVATION
TP 600.00 — PR. TOP OF PVMT. ELEVATION
FG 600.00 — FINISH GRADE ELEVATION

SITE SUMMARY

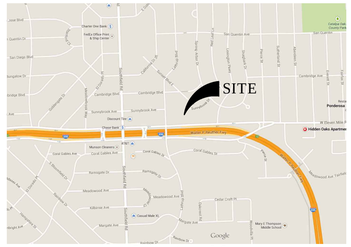
EXISTING SITE ZONING: MX MIXED USE
EXISTING SITE AREA: 90,929.76 S.F. OR 2.09 ACRES

SETBACKS
MIN FRONT YARD: 0 FT
MAX FRONT YARD: 10 FT
MIN REAR YARD: 25 FT
MIN SIDE YARD: 0 FT

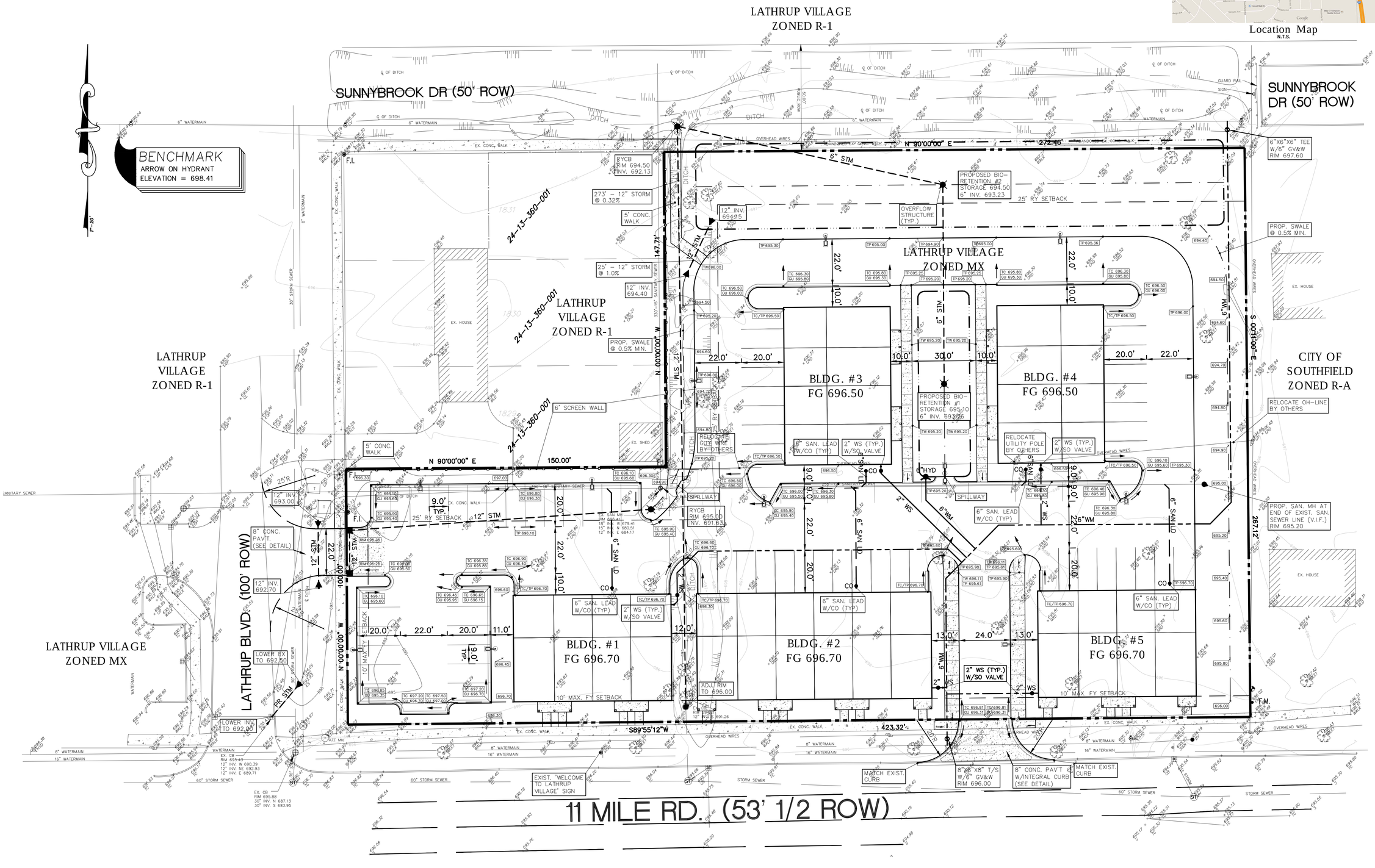
LEGAL DESCRIPTION

A PARCEL IN THE SOUTHWEAT 1/2 OF THE WEST 1/2 OF SECTION 13, T.1N., R.10E., SOUTHFIELD TOWNSHIP, OAKLAND COUNTY, MICHIGAN, LOTS 1804 THRU 1828 OF LOUIS LATHRUP'S CALIFORNIA BUNGALOW SUB No. 3

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DEVELOPMENT

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Ph. 248.840.3438
Fax 248.569.2100

Contact: Jeff Julius

SEAL

SHEET
Engineering Site Plan

PROJECT LOCATION
45710 Eleven Mile Road
Lathrup Village, Mi. 48187

811 Know what's below Call before you dig.

REVISIONS

Date	Description
11-14-2018	SITE PLAN RE-INSTATEMENT
11-03-2015	REVISED PER CLIENT
06-01-2015	SECOND SUBMITTAL
03-03-2015	FIRST SUBMITTAL

Designed by:	Drawn by:
A.O.	D.W.

Approved by:	Date:
A.O.	03-03-2015

Scale: 1" = 20'

Job No.:	Sheet:
1056	C-2

SOIL EROSION CONTROL NOTES

CUTTING, FILLING AND GRADING SHALL BE MINIMIZED AND THE NATURAL TOPOGRAPHY OF THE SITE SHALL BE PRESERVED TO THE MAXIMUM POSSIBLE EXTENT, EXCEPT WHERE SPECIFIC FINDINGS DEMONSTRATE THAT MAJOR ALTERATIONS WILL STILL MEET THE PURPOSES AND REQUIREMENTS OF THIS ORDINANCE.

DEVELOPMENT SHALL BE STAGED TO KEEP THE EXPOSED AREAS OF SOIL AS SMALL AS PRACTICABLE.

SOIL EROSION CONTROL MEASURES SHALL BE INSTALLED BETWEEN THE DISTURBED AREA AND ANY WATERCOURSES, INCLUDING RIVERS, STREAMS, CREEKS, LAKES, PONDS AND OTHER WATERCOURSES; WETLANDS; OR ROADWAYS ON OR NEAR THE SITE.

SEDIMENT RESULTING FROM ACCELERATED SOIL EROSION SHALL BE REMOVED FROM RUNOFF WATER BEFORE THAT WATER LEAVES THE SITE.

TEMPORARY AND PERMANENT SOIL EROSION CONTROL MEASURES DESIGNED AND CONSTRUCTED FOR THE CONVEYANCE OF WATER AROUND, THROUGH, OR AWAY FROM THE SITE SHALL BE DESIGNED TO LIMIT THE WATER FLOW TO A NON-EROSIVE VELOCITY.

TEMPORARY SOIL EROSION CONTROL MEASURES SHALL BE REMOVED AFTER PERMANENT SOIL EROSION CONTROL MEASURES HAVE BEEN IMPLEMENTED. ALL SITES SHALL BE STABILIZED WITH PERMANENT SOIL EROSION CONTROL MEASURES.

IF LAKES, PONDS, CREEKS, STREAMS, OR WETLANDS ARE LOCATED ON OR NEAR THE SITE, EROSION CONTROL MEASURES WHICH DIVERT RUNOFF AND TRAP SEDIMENT MUST BE PROVIDED AT STRATEGIC LOCATIONS. STRAW BALE BERMS MAY BE USED AS TEMPORARY STORM WATER DIVERSION STRUCTURES, BUT WILL NOT BE CONSIDERED SUFFICIENT FOR TRAPPING SEDIMENT. THE USE OF SEDIMENT BASINS, FILTER FABRIC, VEGETATED BUFFER STRIPS, AND ROCK FILTERS IN LIEU OF STRAW BALE BERMS SHALL BE STRONGLY ENCOURAGED. OTHER MEASURES MAY BE REQUIRED IF REASONABLY DETERMINED TO BE NECESSARY TO PROTECT A WATERCOURSE OR WETLAND.

WHEN IT IS NOT POSSIBLE TO PERMANENTLY STABILIZE A DISTURBED AREA AFTER AN EARTH CHANGE HAS BEEN COMPLETED OR WHEN SIGNIFICANT EARTH CHANGE ACTIVITY CEASES, TEMPORARY SOIL EROSION CONTROL MEASURES SHALL BE INSTALLED.

PERMANENT EROSION CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, OR ANY DISTURBED LAND AREA SHALL BE COMPLETED WITHIN 5 (FIVE) CALENDAR DAYS AFTER FINAL GRADING OR THE FINAL EARTH CHANGE HAS BEEN COMPLETED. ALL TEMPORARY SOIL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED.

VEGETATED BUFFER STRIPS SHALL BE CREATED OR RETAINED ALONG THE EDGES OF ALL LAKES, PONDS, CREEKS, STREAMS, OTHER WATERCOURSES, OR WETLANDS.

EROSION AND SEDIMENTATION CONTROL MEASURES SHALL RECEIVE REGULAR MAINTENANCE TO ASSURE PROPER FUNCTIONING.

ALL GRADING PLANS AND SPECIFICATIONS, INCLUDING EXTENSIONS OF PREVIOUSLY APPROVED PLANS, SHALL INCLUDE PROVISIONS FOR EROSION AND SEDIMENT CONTROL IN ACCORDANCE WITH, BUT NOT LIMITED TO, THE STANDARDS CONTAINED IN THE "STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL", PUBLISHED BY THE OAKLAND SOIL CONSERVATION DISTRICT.

VEGETATION SHALL BE ESTABLISHED WITHIN FIVE (5) DAYS OF FINAL GRADE, OR WHENEVER DISTURBED AREAS WILL REMAIN UNCHANGED FOR 30 DAYS OR GREATER. 3" TO 4" OF TOPSOIL WILL BE USED WHERE VEGETATION IS REQUIRED.

DIVERSION BERMS OR TERRACING SHALL BE IMPLEMENTED WHERE NECESSARY.

ALL DRAINAGE DITCHES SHALL BE STABILIZED WITH EROSION CONTROL BLANKETS AND SHALL UTILIZE CHECK DAMS AS NECESSARY. DRAINAGE DITCHES STEEPER THAT 3% SHALL BE SODDED.

SLOPES STEEPER THAN 1V:6H (16% SHALL BE STABILIZED WITH EROSION CONTROL BLANKETS.

SEQUENCE OF CONSTRUCTION

INSTALL CRUSHED CONCRETE ACCESS DRIVE AND TEMPORARY CULVERTS AT THE SITE ENTRANCE AS INDICATED ON THE PLANS.

INSTALL SILT FENCE OR SIMILAR APPROVED SILT BARRIER ALONG PROPERTY LINES AND AROUND SENSITIVE NATURAL FEATURES AS INDICATED ON THE PLANS.

EXCAVATE A SHALLOW SWALE/DITCH AROUND PERIMETER OF SITE. GRADE THE TEMPORARY SWALE TO AN EXISTING DRAINAGE FACILITY. PLACE OUTLET FILTER IN EXISTING UPSTREAM STORM SEWER FACILITIES.

IF INDICATED ON CONSTRUCTION PLANS, SEDIMENTATION BASINS, DETENTION POND, ETC., SHALL BE CONSTRUCTED PRIOR TO THE INSTALLATION OF ANY OTHER WORK.

STRIP EXISTING TOPSOIL, VEGETATION AND ORGANIC MATTER FROM BUILDING PAD AND PARKING AREAS. COMMENCE LAND BALANCE AND MASS GRADING OPERATIONS. MAINTAIN A MINIMUM BUFFER OF 15' OF EXISTING VEGETATION WHEREVER POSSIBLE AROUND SITE PERIMETER. STOCK PILES SHOULD BE LOCATED AWAY FROM EXISTING DRAINAGE FACILITIES.

EXCAVATE AND INSTALL UNDERGROUND UTILITIES. INSTALL INLET FILTERS AROUND ALL NEW STORM SEWER FACILITIES AS INDICATED ON THE PLANS. EXISTING AND PROPOSED STORM SEWER FACILITIES SHALL BE PROTECTED FROM EROSION AND SEDIMENT INFILTRATION AT ALL TIMES.

COMMENCE FINAL GRADING AND TRIMMING OPERATIONS. PREPARE SUBGRADE FOR INSTALLATION OF PROPOSED PAVEMENT.

SEED AND MULCH ALL DISTURBED SITE AREAS AND INSTALLED SITE LANDSCAPING.

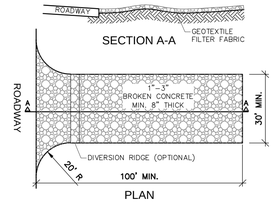
REMOVE CONSTRUCTION DEBRIS AND JET VAC NEWLY INSTALLED STORM SEWER SYSTEM AS REQUIRED BY THE MUNICIPALITY.

REMOVE ALL REMAINING TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL MEASURES ONCE PERMANENT MEASURES ARE ESTABLISHED.

WHENEVER POSSIBLE, THE SITE SHALL BE GRADED TO WITHIN SIX INCHES (6") OF THE PROPOSED FINISH GRADE PRIOR TO INSTALLATION OF UNDERGROUND FACILITIES.

STAGING OF PROPOSED WORK SHALL BE COMPLETED BY THE CONTRACTOR AS REQUIRED TO ENSURE PROGRESSIVE STABILIZATION OF DISTURBED AREAS.

REMOVE ALL TEMPORARY SESC MEASURES ONCE SITE IS STABILIZED.



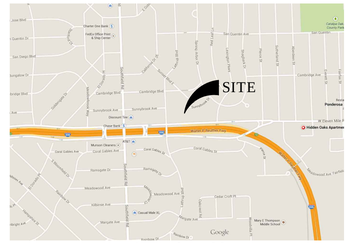
TEMPORARY BROKEN CONCRETE CONSTRUCTION ACCESS ROAD



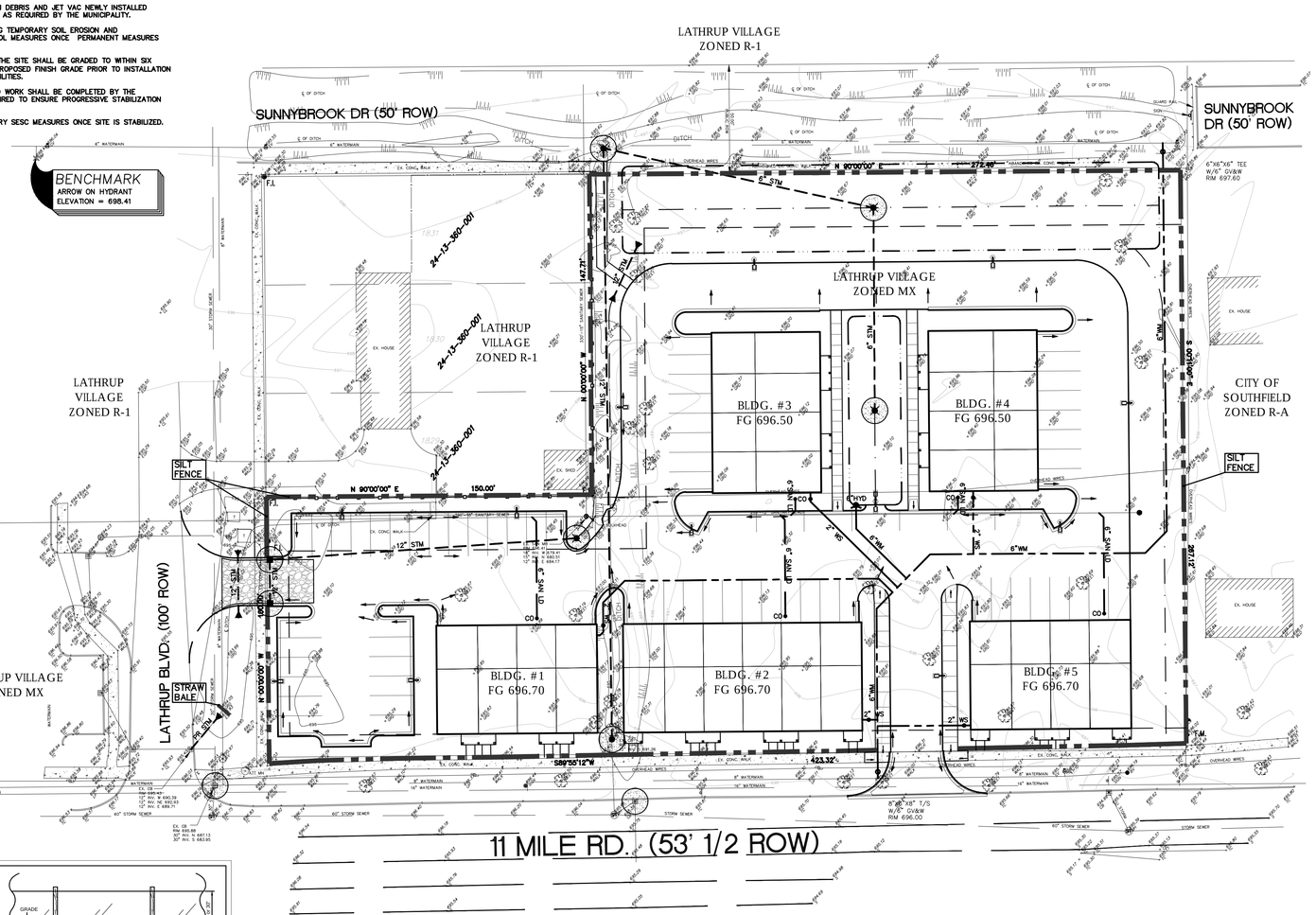
SOIL MAP

Oakland County, Michigan (MI125)

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
56A	Urban land-Blount-Lenawee complex, 0 to 3 percent slopes	5.7	100.0%
Totals for Area of Interest		5.7	100.0%



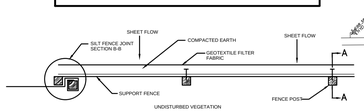
Location Map
N.T.S.



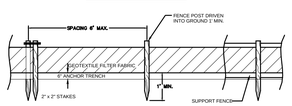


LEGEND

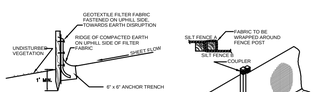
- INDICATES LIMITS OF SILT FABRIC FENCE
- INDICATES LIMITS OF DRAINAGE DISTRICT AREA
- INDICATES EARTH CHANGED
- INDICATES LOW POINT INLET FILTER
- INDICATES DRAINAGE DISTRICT AREA



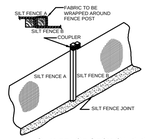
SILT FENCE PLAN VIEW



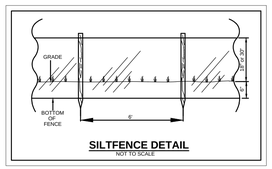
SILT FENCE FRONT VIEW

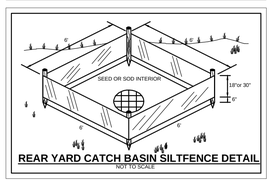


SILT FENCE SECTION A-A



SILT FENCE SECTION B-B





NOTE:

SILT FENCE SHALL BE INSTALLED AT THE 25' BUFFER LINE PRIOR TO ANY GRADING ON-SITE AND SHALL REMAIN IN PLACE AND MAINTAINED PROPERLY DURING THE DURATION OF THE PROJECT. NO GRADING OR DISTURBANCE SHALL BE MADE IN THE BUFFER ZONE.

LEGEND

- MANHOLE — EXISTING SANITARY SEWER
- SAN. CLEAN OUT
- HYDRANT, GATE VALVE — EXISTING WATERMAIN
- MANHOLE, CATCH BASIN — EXISTING STORM SEWER
- EX. R. Y. CATCH BASIN
- EXISTING BURIED CABLES
- UTILITY POLE, GUY POLE, GUY WIRE — OVERHEAD LINES
- LIGHT POLE
- SIGN
- EXISTING GAS MAIN
- C.O. MANHOLE — PR. SANITARY SEWER
- HYDRANT, GATE VALVE — PR. WATER MAIN
- INLET, C.B., MANHOLE — PR. STORM SEWER
- PR. R. Y. CATCH BASIN
- PROPOSED LIGHT POLE
- WETLAND BUFFER (25' FROM WETLAND)
- WETLAND
- FLOOD ZONE
- TOP OF BANK
- BUFFER (FROM T/BANK)
- TC 600.00 — PR. TOP OF CURB ELEVATION
- GU 600.00 — PR. GUTTER ELEVATION
- BC 600.00 — PR. BACK OF CURB
- TW 600.00 — PR. TOP OF WALK ELEVATION
- TP 600.00 — PR. TOP OF PVMT. ELEVATION
- FG 600.00 — FINISH GRADE ELEVATION

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SEAL

Know what's below
Call before you dig.

SHEET
Soil Erosion Control Plan

PROJECT LOCATION
45710 Eleven Mile Road
Lathrup Village, Mi. 48187

REVISIONS

Date	Description
11-14-2018	SITE PLAN RE-INSTATEMENT
11-03-2015	REVISED PER CLIENT
06-01-2015	SECOND SUBMITTAL
03-03-2015	FIRST SUBMITTAL

Designed by:	Drawn by:
A.O.	D.W.

Approved by:	Date:
A.O.	03-03-2015

Scale:
1" = 30'

Job No.:	Sheet:
1056	C-3

DECORATIVE TAPERED ALUMINUM POLE AND BASE — AV30

SUBMITTAL:

JOB:

TYPE:

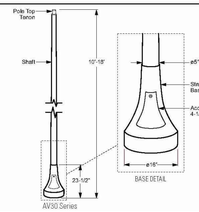


EXAMPLE: VM - AV30 - A - 100 - 40 - 156 - T - T23B - DBR - AB - OPTIONS

PREFIX	SERIES	MATERIAL	HEIGHT	TOP DIAMETER	WALL THICKNESS	SHAFT STYLE	FIXTURE MOUNTING	FINISH OPTIONS	ANCHOR BOLTS	OPTIONS

SERIES

AV30 — Series AV30 poles are 10' to 18' in height including a cast aluminum structural base and a O.D. top tapered round aluminum shaft. The pole is designed to accommodate up to two fixtures on a pole top assembly with a maximum 36" O.C. fixture span.



AV30 SERIES
SHAFT — The pole shaft is spun from seamless 6063 alloy aluminum.
POLE TOP — A pole top plate and tenon (must specify size) are provided for top mount luminaire or Williams' pole top assembly.
ACCESS DOOR — The structural base includes an access door for easy on-site maintenance.
STRUCTURAL BASE — The structural base is cast from 356 alloy aluminum. A grounding provision with hardware is provided. The pole is inserted and welded into the structural base casting. The completed assembly is heat-treated to a T6 temper.

MATERIAL (Must specify)

A	Aluminum

HEIGHT (Must specify)

100	10'-0"	120	12'-0"	140	14'-0"
160	16'-0"	180	18'-0"	SL___	Special Pole Length (Please specify, consult factory)

TOP DIAMETER

40	4"

WALL THICKNESS (Must specify)

156	0.156"	188	0.188" (14', 16' and 18' shaft heights only)

SHAFT STYLE (Must specify)

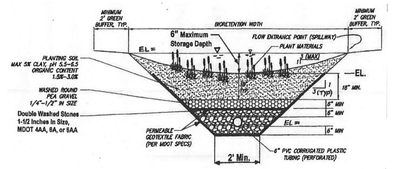
T	Tapered Round

10-YEAR STORM BIORETENTION DESIGN CALCULATIONS, AREA 1

Pavement:	0.28 AC x 0.9 = 0.252		
Lawn:	0.11 AC x 0.2 = 0.022		
Total:		0.274	
A (area) =			0.39 AC
C = 0.274 / 0.39 AC =			0.7
Frontage =			100 FT
Qa (allowable) = 0.20 x A =			0.078 CFS
Qa (allowable) = 0.103 x Frontage / 100 =			0.103 CFS
Use the smaller value, Qa =			0.078 CFS
Qo (max) = Qa / (A x C) =			0.286 CFS / ACR.IMP.
Ts = - 25 + (6562.5 / Qo)^0.5 =			126.48 MINUTES
Vs = 10,500 x Ts / (Ts + 25) - 40 x Qo x Ts =			7,320.17 ACR.IMP.
Vt = Vs x A x C =			1,998.40.13 CF
Required Volume =			1,999 CF
Ponding Storage on top (max. 6" deep):			
Elev. 695.10	Area 2,520 SF		
Elev. 694.60	Area 2,187 SF		Volume: 1,176 CF
Storage in Planting Soils and Gravel Layers (20% void space)			
Elev. 694.60	Area 2,187 SF		
Elev. 692.00	Area 1,035 SF		Volume: 945 CF
Total Storage Provided = 2,120 Cf			

10-YEAR STORM BIORETENTION DESIGN CALCULATIONS, AREA 2

A (area) =			1.69 AC
C =			0.7
Qa (allowable) = 0.20 x A =			0.338 CFS
Qo (max) = Qa / (A x C) =			0.286 CFS / ACR.IMP.
Ts = - 25 + (6562.5 / Qo)^0.5 =			126.48 MINUTES
Vs = 10,500 x Ts / (Ts + 25) - 40 x Qo x Ts =			7,320.17 ACR.IMP.
Vt = Vs x A x C =			8,659.76 CF
Required Volume =			8,660 CF
Ponding Storage on top (max. 6" deep):			
Elev. 694.50	Area 10,000 SF		
Elev. 694.00	Area 9,139 SF		Volume: 4,783 CF
Storage in Planting Soils and Gravel Layers (20% void space)			
Elev. 694.00	Area 9,139 SF		
Elev. 691.00	Area 4,351 SF		Volume: 3,959 CF
Total Storage Provided = 8,742 Cf			



TYPICAL BIORETENTION CROSS-SECTION
N.T.S.

Bioretention Material Specifications:

Planting Soil: Planting soil should have a sandy loam, loamy sand, or loam texture per USDA textural triangle. Maximum clay content is < 5%. The soil mixture should have pH between 5.5 and 6.5 with an organic content of 1.5-3.0%, and an infiltration rate greater than 0.5 in/hour. The soil should be a uniform mix, free of stones, roots, or other similar objects larger than two inches. No other materials or substances should be mixed or dumped within the bioretention that may be harmful to plan growth, or prove a hindrance to the planting or maintenance operations. The planting soil should be free of Bermuda Grass, Quack Grass, Johnson Grass, Mugwort, Nutsedge, Poison Ivy, Canadian Thistle, Teartbub, or other noxious weeds.

Sand: Sand should be clean and free of deleterious materials. For planting soil, MDOT Class II clean sand is recommended.

Mulch: Mulch should consist of raw hardwood, MDOT Quality Product List (QPL). Grass clippings are unsuitable for mulch, primarily due to the excessive quantities of nitrogen built up in the materials.

Geotextile Fabric: Geotextile fabric should maintain a flow rate of 125 GPM per square foot. MDOT specifications are recommended (Table 910-1).

Underdrain Gravel Blanket: The gravel blanket should be double washed, 1-1/2 inches in size. MDOT class I Porous material is recommended.

Pea Gravel: Pea gravel should be washed, river-run, round diameter, 1/4 – 1/2 inches in size.

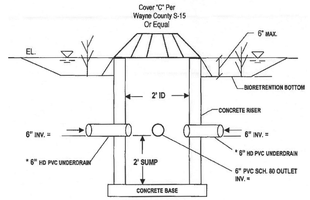
Underdrain Piping: A variety of materials can be used for underdrain piping, including heavy-duty PVC pipe and corrugated metal pipe. Other pipe materials may be used.

Vegetation: The following is a partial list of plants native to southeast Michigan that may be suitable for bioretention areas. The plants listed are excellent for moist organic gardens that are "dry" within 48 hours of a rain. Check sun/shade conditions before planning and planting.

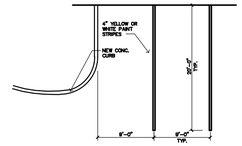
Wildflowers, Sedges, and Grasses
Beardtongue (Penstemon digitalis)
Bergamot (Bee-Balm) (Monarda fistulosa)
Black-Eyed Susan (Rudbeckia hirta)
Blue Flag Iris (Iris Virginica)
Blue Vervain (Verbena hostata)
Boneset (Eupatorium perfoliatum)
Canada Anemone (Anemone Canadensis)
Columbine (Aquilegia Canadensis)
Culver's Root (Veronicastrum virginicum)
Indian Grass (Sorgastrum nutans)
Joe-Pye Weed (Eupatorium Maculatum)
Marsh Blazing Star (Liatris spicata)
Missouri Ironweed (Veronia missurica)
New England Aster (Aster Novae-angliae)
Old-Field Cinquefoil (Potentilla simplex)
Porcupine Sedge (Carex hystericina)
Sneezeweed (Helenium autumnale)
Spiderwort (Tradescantia Ohiensis)
Swamp Goldenrod (Solidago patula)

Wildflowers, Sedges, and Grasses (Cont.)
Tall or Green-Headed Coneflower (Rudbeckia triloburn)
Swamp Milkweed (Asclepias incarnata)
Tall Tickseed (Coreopsis verticillata)
White Turtlehead (Chelone glabra)
White Vervain (Verbena urticifolia)
Wild Strawberry (Fragaria virginiana)

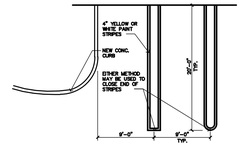
Shrubs
American Cranberrybush (Viburnum trilobum)
Black Chokeberry (Aronia prunifolia)
Common Buttonbush (Cephalanthus occidentalis)
Meadowsweet (Spiraea alba)
Ninebark (Physocarpus opulifolius)
Redosier Dogwood (Cornes stolonifera)
Shrubby Cinquefoil (Potentilla fruticosa)
Shrubby St. John's Wort (Hypericum prolificum)
Spicebush (Lindera benzoin)
Steeplebush (Spiraea tomentosa)



TYPICAL BIORETENTION OVERFLOW SECTION
N.T.S.
* UNDERDRAIN PIPE SHOULD NOT BE PERFORATED WITHIN 5' OF THE STRUCTURE



PARKING STRIPE DETAIL-RESIDENTIAL
N.T.S.



PARKING STRIPE DETAIL-COMMERCIAL
N.T.S.

NOTES

DETAILS SPECIFIED ON THIS PLAN APPLY TO ALL CONSTRUCTION, RECONSTRUCTION, OR ALTERATION OF STREETS, CURBS, OR SIDEWALKS BY ALL PUBLIC AGENCIES AND BY ALL PRIVATE ORGANIZATIONS CONSTRUCTING FACILITIES FOR PUBLIC USE.

SIDEWALK RAMPS ARE TO BE LOCATED AS SPECIFIED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

RAMPS SHALL BE PROVIDED AT ALL CORNERS OF AN INTERSECTION WHERE THERE IS EXISTING OR PROPOSED SIDEWALK AND CURB. RAMPS SHALL ALSO BE PROVIDED AT MID-BLOCK LOCATIONS IN THE VICINITIES OF HOSPITALS, MEDICAL CENTERS, AND LARGE ATHLETIC FACILITIES.

SURFACE TEXTURE OF THE RAMP SHALL BE THAT OBTAINED BY A COARSE BROOMING, TRANSVERSE TO THE SLOPE OF RAMP.

SIDEWALK SHALL BE RAMPED WHERE THE DRIVEWAY CURB IS EXTENDED ACROSS THE WALK.

CARE SHALL BE TAKEN TO ASSURE A UNIFORM GRADE ON THE RAMP, FREE OF SAGS AND SHORT GRADE CHANGES. WHERE CONDITIONS PERMIT, IT IS DESIRABLE THAT THE SLOPE OF THE RAMP BE IN ONLY ONE DIRECTION, PARALLEL TO THE DIRECTION OF TRAVEL.

RAMP WIDTH SHALL BE INCREASED, IF NECESSARY, TO ACCOMMODATE SIDEWALK SNOW REMOVAL EQUIPMENT NORMALLY USED BY THE MUNICIPALITY.

* MAXIMUM TURNING SPACE SLOPE IS 2.0% IN EACH DIRECTION OF TRAVEL. MINIMUM DIMENSIONS 5' x 5'. SEE NOTES.

** MAXIMUM RAMP CROSS SLOPE IS 2.0%. RUNNING SLOPE 5% – 7% (8.3% MAXIMUM). SEE NOTES.

THE MAXIMUM RUNNING SLOPE OF 8.3% IS RELATIVE TO A FLAT (0%) REFERENCE. HOWEVER, IT SHALL NOT REQUIRE ANY RAMP OR SINGLE RAMP WITHIN A COMBINATION OF RAMPS TO EXCEED 15 FEET IN LENGTH.

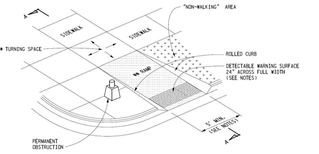
IF POSSIBLE, DRAINAGE STRUCTURES SHOULD NOT BE PLACED IN LINE WITH RAMPS, EXCEPT WHERE EXISTING DRAINAGE STRUCTURES ARE BEING UTILIZED IN THE NEW CONSTRUCTION. LOCATION OF THE RAMP SHOULD TAKE PRECEDENCE OVER LOCATION OF DRAINAGE STRUCTURE.

THE SLOPE OF THE GUTTER PAN SHALL BE TRANSITIONED TO A MAXIMUM OF 5% IN THE AREA OF THE CURB CUT OF THE SIDEWALK RAMP. MAINTAIN THE NORMAL GUTTER PAN SLOPE ACROSS THE DRAINAGE STRUCTURE INLETS.

THE TOP OF THE JOINT FILLER FOR ALL RAMP TYPES SHALL BE FLUSH WITH THE ADJACENT CONCRETE.

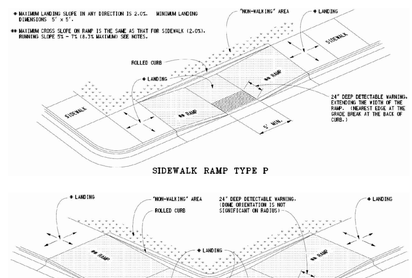
CROSSWALK AND STOP LINE MARKINGS, IF USED, SHALL BE SO LOCATED AS TO STOP TRAFFIC SHORT OF RAMP CROSSINGS. SPECIFIC DETAILS FOR MARKING APPLICATIONS ARE GIVEN IN THE "MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES".

FLARED SIDES WITH A SLOPE OF 10% MAXIMUM, MEASURED ALONG THE CURB LINE, SHALL BE PROVIDED WHERE A CIRCULATION PATH CROSSES THE SIDEWALK RAMP. FLARED SIDES ARE NOT REQUIRED WHERE THE SIDES OF A SIDEWALK RAMP ARE PROTECTED BY LANDSCAPING OR OTHER BARRIERS TO TRAVEL BY WHEELCHAIR USERS OR PEDESTRIANS ACROSS THE EDGE OF THE SIDEWALK RAMP.



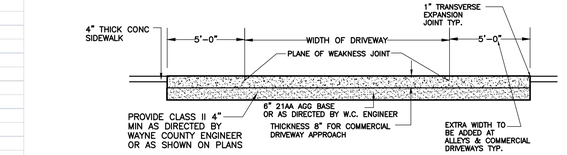
SIDEWALK RAMP TYPE R
(ROLLED SIDES)

* MAXIMUM LANDING SLOPE IN ANY DIRECTION IS 2.0%. MINIMUM LANDING DIMENSIONS 5' x 5'.
** MAXIMUM CROSS SLOPE ON RAMP IS THE SAME AS THAT FOR SIDEWALK (2.0%). RUNNING SLOPE 5% – 7% (8.3% MAXIMUM) SEE NOTES.

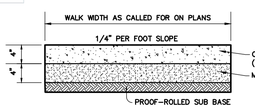


SIDEWALK RAMP TYPE D
(DEPRESSED CORNER)

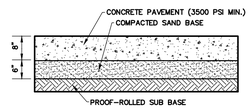
SIDEWALK RAMP DETAILS
N.T.S.



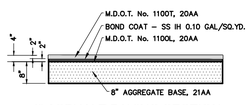
THICKENED CONCRETE WALK SECTION
N.T.S.



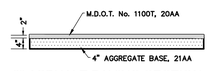
4" CONCRETE WALK SECTION
N.T.S.



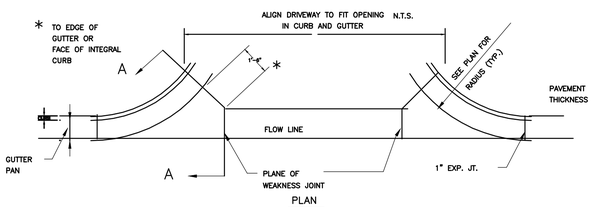
8" CONCRETE SECTION
N.T.S.



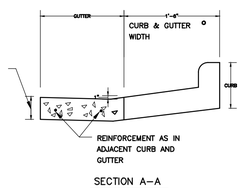
4" ASPHALT PAVING SECTION
(Residential Drive Isles & Parking Lot)
N.T.S.

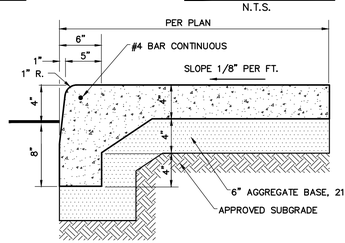


2" ASPHALT PAVING SECTION
(Residential Driveway Approaches)
N.T.S.

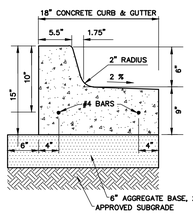


MDOT CONCRETE DRIVEWAY OPENING
N.T.S.

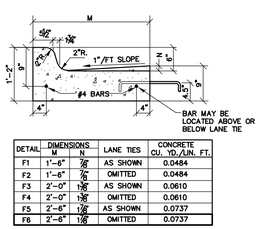




4" MONOLITHIC CURB AND WALK
N.T.S.



CONCRETE CURB DETAIL 'B'
N.T.S.



DETAIL	DIMENSIONS M	N	LANE TIES	CONCRETE CU. YD./LIN. FT.
F1	1'-6"	7/8"	AS SHOWN	0.0484
F2	1'-6"	7/8"	OMITTED	0.0484
F3	2'-0"	1 3/8"	AS SHOWN	0.0610
F4	2'-0"	1 3/8"	OMITTED	0.0610
F5	2'-6"	1 7/8"	AS SHOWN	0.0737
F6	2'-6"	1 7/8"	OMITTED	0.0737

MDOT CURB AND GUTTER DETAIL F
N.T.S.

OE Engineering
Civil Engineers • Land Planning
Land Surveying
Orman Engineering, LLC
5476 Vivian Lane
Waterford, MI 48327
P: 248.682.6001
E: ormana@sbcglobal.net

PROJECT
PROPOSED
LATHRUP VILLAGE
DEVELOPMENT

CLIENT
FFJ DEVELOPMENT,
L.L.C.
1732 Crooks Road
Troy, Michigan 48084
Ph. 248.840.3438
Fax 248.569.2100

Contact: Jeff Julius

SEAL

SHEET
Details

PROJECT LOCATION
45710 Eleven Mile Road
Lathrup Village, Mi. 48187

Know what's below
Call before you dig.

REVISIONS

Date	Description
11-14-2018	SITE PLAN RE-INSTATEMENT
11-03-2015	REVISED PER CLIENT
06-01-2015	SECOND SUBMITTAL
03-03-2015	FIRST SUBMITTAL

Designed by:	Drawn by:
A.O.	D.W.
Approved by:	**Date:**
A.O.	03-03-2015
Scale:	
1" = 30'	
Job No.:	**Sheet:**
1056	C-4

LEGEND

- MANHOLE — EXISTING SANITARY SEWER
- HYDRANT, GATE VALVE — SAN. CLEAN OUT
- EXISTING WATERMAIN
- MANHOLE, CATCH BASIN — EXISTING STORM SEWER
- EX. R. Y. CATCH BASIN
- UTILITY POLE, GUY POLE, GUY WIRE — EXISTING BURIED CABLES
- OVERHEAD LINES
- LIGHT POLE
- SIGN
- C.O., MANHOLE — EXISTING GAS MAIN
- HYDRANT, GATE VALVE — PR. SANITARY SEWER
- PR. WATER MAIN
- INLET, C.B., MANHOLE — PR. STORM SEWER
- PR. R. Y. CATCH BASIN
- PROPOSED LIGHT POLE
- WETLAND BUFFER (25' FROM WETLAND)
- WETLAND
- FLOOD ZONE
- TOP OF BANK
- BUFFER (FROM T/BANK)
- TC 600.00 — PR. TOP OF CURB ELEVATION
- GU 600.00 — PR. GUTTER ELEVATION
- BC 600.00 — PR. BACK OF CURB
- TW 600.00 — PR. TOP OF WALK ELEVATION
- TP 600.00 — PR. TOP OF PVMT. ELEVATION
- FG 600.00 — FINISH GRADE ELEVATION

LANDSCAPE REQUIREMENTS

LANDSCAPING / GREEN SPACE

TOTAL LOT AREA (EXCLUDING ALLEY) = 82,385 SF
82,385 SF X 5% = 4,120 SF LANDSCAPE AREA REQUIRED

LANDSCAPE AREA REQUIRED: 4,120 SF
LANDSCAPE AREA PROVIDED: 16,000 SF

PARKING LOT LANDSCAPING

15 SF OF PARKING LOT LANDSCAPING / PARKING SPACE
33 PROPOSED PARKING SPACES
33 X 15 = 495 SF REQUIRED

LANDSCAPE AREA REQUIRED: 495 SF
LANDSCAPE AREA PROVIDED: 1105 SF
(235 SF + 870 SF)

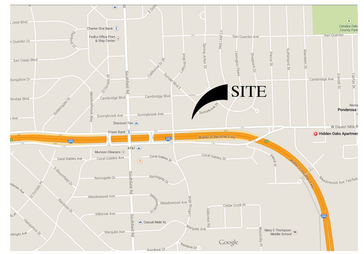
NOTE KEY: (2)

1. SNOW STORAGE AREA
2. 6' HT. SCREEN WALL - SEE CIVIL PLANS
3. SWALE - SEE CIVIL PLANS
4. LIGHTPOLE - SEE CIVIL / ELECTRICAL PLANS

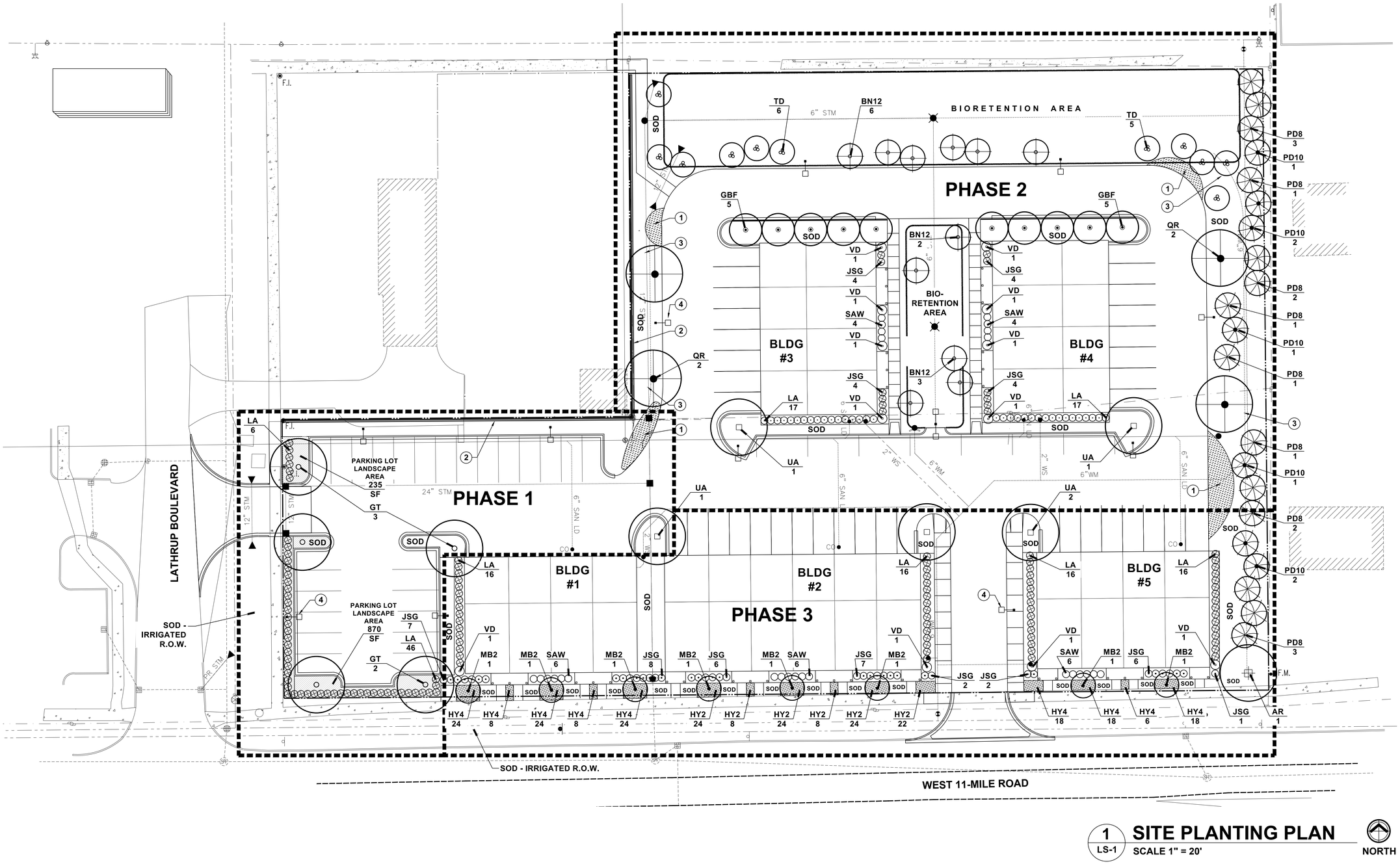
PLANTING KEY:

TREE SYMBOL
TREE TYPE KEY
FA3 — PLANT LIST-SEE SHEET LS-2
PLANTING DETAILS-SEE SHEET LS-2
QUANTITY

KWLA
KENNETH WEIKAL
LANDSCAPE ARCHITECTURE
248 477 3600 TEL
WWW.KW-LA.COM
33203 BIDDESTONE LANE, FARMINGTON HILLS, MI 48334



Location Map
N.T.S.



1 / LS-1 **SITE PLANTING PLAN**
SCALE 1" = 20'

NORTH

OEngineering
Civil Engineers • Land Planning
Land Surveying
Orman Engineering, LLC
5476 Vivian Lane
Waterford, MI 48327
P: 248.682.6001
E: ormana@sbcglobal.net

PROJECT
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CLIENT
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1732 Crooks Road
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Ph. 248.840.3438
Fax 248.569.2100

Contact: Jeff Julius

SEAL

STATE OF MICHIGAN
KENNETH S. WEIKAL
LANDSCAPE ARCHITECT
No. 1022
REGISTERED LANDSCAPE ARCHITECT

SHEET
Site Planting Plan

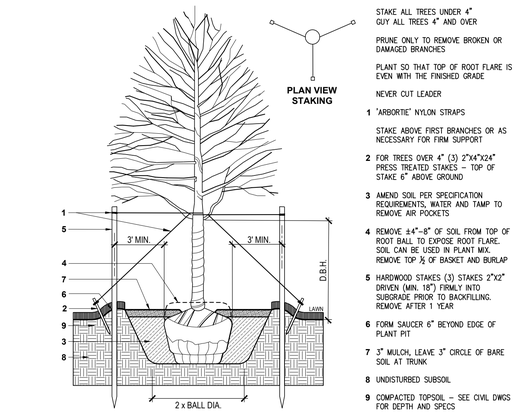
PROJECT LOCATION
45710 Eleven Mile Road
Lathrup Village, Mi. 48187

811 Know what's below Call before you dig.

REVISIONS

Date	Description
11/14/18	SITE PLAN RE-INSTATEMENT
11/11/15	REV. PER CITY REVIEW
08/26/15	REV. PER CITY REVIEW
06/01/15	REV. PER CITY REVIEW

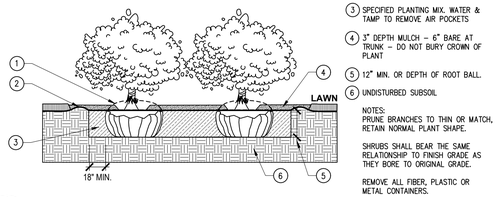
Designed by:	Drawn by:
KW	KMW
Approved by:	**Date:**
KW	03-03-2015
Scale:	
1" = 20'	
Job No.:	**Sheet:**
1056	LS-1



1. STAKE ALL TREES UNDER 4" GUY ALL TREES 4" AND OVER
2. PRUNE ONLY TO REMOVE BROKEN OR DAMAGED BRANCHES
3. PLANT SO THAT TOP OF ROOT FLARE IS EVEN WITH THE FINISHED GRADE
4. NEVER CUT LEADER
5. 1 "ARBORTIE" NYLON STRAPS
6. STAKE ABOVE FIRST BRANCHES OR AS NECESSARY FOR FIRM SUPPORT
7. 2 FOR TREES OVER 4" (3) 2"x4"x24" PRESS TREATED STAKES – TOP OF STAKE 6" ABOVE GROUND
8. 3 AMEND SOIL PER SPECIFICATION REQUIREMENTS, WATER AND TAMP TO REMOVE AIR POCKETS
9. 4 REMOVE ±4"–8" OF SOIL FROM TOP OF ROOT BALL TO EXPOSE ROOT FLARE. SOIL CAN BE USED IN PLANT MIX. REMOVE TOP ½ OF BASKET AND BURLAP
10. 5 HARDWOOD STAKES (3) STAKES 2"x2" DRIVEN (MIN. 18") FIRMLY INTO SUBGRADE PRIOR TO BACKFILLING. REMOVE AFTER 1 YEAR
11. 6 FORM SAUCER 6" BEYOND EDGE OF PLANT PIT
12. 7 3" MULCH, LEAVE 3" CIRCLE OF BARE SOIL AT TRUNK
13. 8 UNDISTURBED SUBSOIL
14. 9 COMPACTED TOPSOIL – SEE CIVIL DWGS FOR DEPTH AND SPECS

1 DECIDUOUS TREE PLANTING

NOT TO SCALE



1. 1 REMOVE TOP 1/3 OF BURLAP FROM ROOTBALL
2. 2 MOUND TO FORM SAUCER FORM SOIL SAUCER WITH 3" HT. CONTINUOUS RIM
3. 3 SPECIFIED PLANTING MIX. WATER & TAMP TO REMOVE AIR POCKETS
4. 4 3" DEPTH MULCH – 6" BARE AT TRUNK – DO NOT BURY CROWN OF PLANT
5. 5 12" MIN. OR DEPTH OF ROOT BALL.
6. 6 UNDISTURBED SUBSOIL

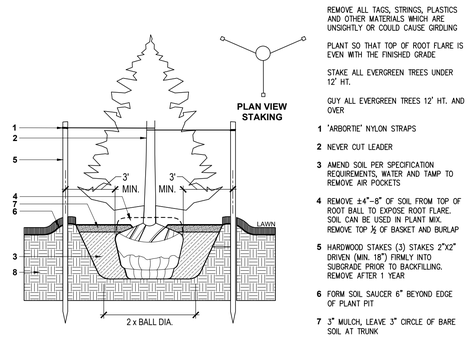
NOTES:
PRUNE BRANCHES TO THIN OR MATCH, RETAIN NORMAL PLANT SHAPE.

SHRUBS SHALL BEAR THE SAME RELATIONSHIP TO FINISH GRADE AS THEY BORE TO ORIGINAL GRADE.

REMOVE ALL FIBER, PLASTIC OR METAL CONTAINERS.

2 SHRUB BED PLANTING DETAIL

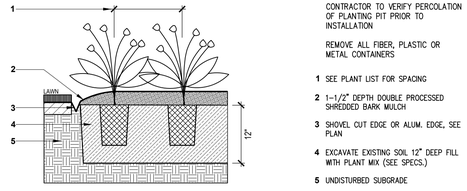
NOT TO SCALE



1. REMOVE ALL TAGS, STRINGS, PLASTICS AND OTHER MATERIALS WHICH ARE UNSIGHTLY OR COULD CAUSE GIRDLING
2. PLANT SO THAT TOP OF ROOT FLARE IS EVEN WITH THE FINISHED GRADE
3. STAKE ALL EVERGREEN TREES UNDER 12' HT.
4. GUY ALL EVERGREEN TREES 12' HT. AND OVER
5. 1 "ARBORTIE" NYLON STRAPS
6. 2 NEVER CUT LEADER
7. 3 AMEND SOIL PER SPECIFICATION REQUIREMENTS, WATER AND TAMP TO REMOVE AIR POCKETS
8. 4 REMOVE ±4"–8" OF SOIL FROM TOP OF ROOT BALL TO EXPOSE ROOT FLARE. SOIL CAN BE USED IN PLANT MIX. REMOVE TOP ½ OF BASKET AND BURLAP
9. 5 HARDWOOD STAKES (3) STAKES 2"X2" DRIVEN (MIN. 18") FIRMLY INTO SUBGRADE PRIOR TO BACKFILLING. REMOVE AFTER 1 YEAR
10. 6 FORM SOIL SAUCER 6" BEYOND EDGE OF PLANT PIT
11. 7 3" MULCH, LEAVE 3" CIRCLE OF BARE SOIL AT TRUNK
12. 8 UNDISTURBED SUBSOIL

3 EVERGREEN TREE PLANTING

NOT TO SCALE



1. CONTRACTOR TO VERIFY PERCOLATION OF PLANTING PIT PRIOR TO INSTALLATION
2. REMOVE ALL FIBER, PLASTIC OR METAL CONTAINERS
3. 1 SEE PLANT LIST FOR SPACING
4. 2 1–1/2" DEPTH DOUBLE PROCESSED SHREDDED BARK MULCH
5. 3 SHOVEL CUT EDGE OR ALUM. EDGE, SEE PLAN
6. 4 EXCAVATE EXISTING SOIL 12" DEEP FILL WITH PLANT MIX (SEE SPECS.)
7. 5 UNDISTURBED SUBGRADE

4 PERENNIAL / GROUNDCOVER PLANTING DETAIL

NOT TO SCALE

PLANT LIST

QUAN.	KEY	COMMON/ BOTANICAL NAME	SIZE	SPEC.
1	AB	Autumn Blaze Maple *Acer x. fremanii 'Autumn Blaze'*	3" Cal.	B&B
11	BN12	River Birch - Clump *Betula nigra*	12' Ht. 4-stem min.	B&B
10	GBF	Columnar Ginkgo *Ginkgo biloba 'Fastigiata'*	3" Cal.	B&B
5	GT	Thornless Honeylocust *Gleditsia tria.inermis*	3" Cal.	B&B
8	MB2	Red Baron Crab Apple *Malus 'Red Baron'*	2" Cal.	B&B
4	QR	Northern Red Oak *Quercus rubra*	3" Cal.	B&B
5	UA	Accolade Elm *Ulmus parviflora 'Morton'*	3" Cal	B&B
14	PD8	Black Hills Spruce *Picea g. 'Densata'*	8' Ht.	B&B
7	PD10	Black Hills Spruce *Picea g. 'Densata'*	10' Ht.	B&B
11	TD	Bald Cypress *Taxodium distichum*	10' Ht. Low branched	B&B
55	JSG	Sea Green Juniper *Juniperus 'Sea Green'*	24" Spr.	Cont.
150	LA	Amur Privet *Ligustrum amurense*	24" Ht.	Cont.
26	SAW	Anthony Waterer Spirea *Spirea 'Anthony Waterer'*	24" Ht.	Cont.
12	VD	Arrowood Viburnum *Viburnum dentatum*	36" Ht.	Cont.
110	HY2	Happy Returns Daylily *Hemerocallis 'Happy Returns'*	1 Gal. 3 Fan min.	Cont.
148	HY4	Stella D'Oro Daylilies *Hemerocallis 'Stella D'Oro'*	3 Fan min.	Cont.

Elm Summary

The Elms specified are not American elm trees, which we all know have been decimated over the past 100 years in the American landscape, but special hybrids developed to replace the American Elm.

The Regal Elm - is a hybrid elm cultivar developed by the University of Wisconsin at Madison and released in 1983. 'Regal' was derived from seeds arising from the crossing of the Dutch hybrid clones of the Siberian elm and European smooth leaved elm (*Ulmus pumila* × 'Hoersholmiensis'), sent in 1960 by the De Dorschkamp Research Institute in the Netherlands.

The Regal elm casts a honeylocust-like light shade that makes possible the successful culture of turf grass in the vicinity of the tree

The 'Accolade' Elm - is a cross of the Japanese elm and Chinese elm, (Ulmus japonica x Ulmus wilsoniana)- and was developed by the Morton Arboretum in Chicago

It is an elm cultivar derived from an elm hybrid planted at the Morton Arboretum in 1924, which itself originated as seed collected from a tree at the Arnold Arboretum in Massachusetts.

Accolade Elm is a cross of Japanese and Chinese species selected for its vase shape, vigorous growth, excellent drought tolerance and good strong yellow fall color. It has excellent disease resistance to both Elm Yellows and to the dreaded Dutch Elm Disease. Mayor Daley of Chicago chose the Accolade Elm to bring elms back to Chicago's Grant Park in 2002.

The original tree at the Morton Arboretum is noted for its resemblance to the American Elm (*Ulmus americana),* its upright-arching branches creating the familiar vase-shape. Moreover, in its 80+ years it has survived three epidemics of Dutch Elm Disease there unscathed.

The Triumph Elm - is another elm developed at the Morton Arboretum

It is Asian hybrid - a cross between the 'Vangard Elm' and 'Accolade Elm' (parentage - Japanese, Chinese and Siberian elms)

All three of these elms have been selected for their fast growth and environmental tolerance.

All three of these elms have been specified by our office and are awaiting planting or have been specified and planted in Canton, Novi, Northville, West Bloomfield, Waterford, Shelby Township, Grand Blanc, the city of Detroit and projects in Illinois and Ohio.

GENERAL PLANTING NOTES:

A. ALL TREES TO HAVE CLAY OR LOAM BALLS, TREES WITH SAND BALLS WILL BE REJECTED.

B. ALL SINGLE STEM SHADE TREES TO HAVE STRAIGHT TRUNKS AND SYMMETRICAL CROWNS.

C. ALL SINGLE TRUNK SHADE TREES TO HAVE A CENTRAL LEADER, TREES WITH FORKED OR IRREGULAR TRUNKS WILL NOT BE ACCEPTED.

D. ALL MULTI-STEM TREES SHALL BE HEAVILY BRANCHED AND HAVE SYMMETRICAL CROWNS. ONE SIDED TREES OR THOSE WITH THIN OR OPEN CROWNS SHALL NOT BE ACCEPTED.

E. ALL EVERGREEN TREES SHALL BE HEAVILY BRANCHED AND FULL TO THE GROUND, SYMMETRICAL IN SHAPE AND NOT SHEARED FOR THE LAST FIVE GROWING SEASONS.

F. NO MACHINERY IS TO BE USED WITHIN THE DRIPLINE OF EXISTING TREES. HAND GRADE ALL LAWN AREAS WITHIN DRIPLINE OF EXISTING TREES.

G. ALL TREE LOCATIONS SHALL BE STAKED BY LANDSCAPE CONTRACTOR AND ARE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION OF THE PLANT MATERIAL.

H. IT IS MANDATORY THAT POSITIVE DRAINAGE IS PROVIDED AWAY FROM ALL BUILDINGS, WALKS AND PAVED AREAS.

I. ALL PLANTING BEDS SHALL RECEIVE 3" SHREDDED BARK MULCH. SEE SPECIFICATIONS.

J. SEE SPECIFICATIONS FOR ADDITIONAL COMMENTS, REQUIREMENTS, PLANTING PROCEDURES AND WARRANTY STANDARDS.

K. SOD LAWN AREAS – ALL LAWN AREAS BETWEEN CURBS AND BUILDINGS OR BETWEEN BUILDINGS, DISK SOIL TO 6" DEEP BEFORE TOPSOIL PLACEMENT

PLANT MIX

PLANTING BEDS TO RECEIVE 70% LOAM TOPSOIL, 10% COMPOST, 20% SAND; EXCAVATE PLANT BED, DISPOSE OF SPOILS OFF SITE, INSTALL PLANT MIX

HAND TILL INTO PLACED PLANT MIX:

(1) 6 CU. FT. BALE CANADIAN PEAT

(1) 40 LB BAG DRIMANURE (COMPOSTED POULTRY MANURE)

(1) 10 LB BAG SHEMINS 13-13-13 MULTI PURPOSE FERTILIZER

PER 100 SQ FT BED AREA.

HAND TILL INTO PROVIDED PLANT MIX TO A DEPTH OF 12" MINIMUM

PLANT BEDS

ALL PLANT BEDS TO BE FULLY EXCAVATED TO DEPTH SHOWN ON DETAILS AND AREAS SHOWN ON PLANS, AND TO RECEIVE CONTINUOUS PLANT MIX AS SPECIFIED (NOT INDIVIDUAL PLANT HOLES)

MULCH

MULCH TO BE DOUBLE SHREDDED HARDWOOD BARK MULCH

NO GROUND WOOD PALETTE MULCH PERMITTED

LANDSCAPE EDGING

ALL LANDSCAPE EDGES ARE SHOVEL CUT

PLANT SPACING

FILL BED WITH PLANTS SPECIFIED. KEEP PLANTS AWAY FROM BUILDING 12" MATURE SIZE

LAWNS:

ALL PROPOSED LAWN AREAS TO BE IRRIGATED SOD.

KWLA
KENNETH WEIKAL
LANDSCAPE ARCHITECTURE
248 477 3600 TEL
WWW.KW-LA.COM
33203 BIDDESTONE LANE, FARMINGTON HILLS, MI 48334

OE Engineering
Civil Engineers • Land Planning
Land Surveying
Orman Engineering, LLC
5476 Vivian Lane
Waterford, MI 48327
P: 248.682.6001
E: ormana@sbcglobal.net

PROJECT
PROPOSED
LATHRUP VILLAGE
DEVELOPMENT

CLIENT
FFJ DEVELOPMENT,
L.L.C.
1732 Crooks Road
Troy, Michigan 48084
Ph. 248.840.3438
Fax 248.569.2100

Contact: Jeff Julius

SEAL
STATE OF MICHIGAN
KENNETH S. WEIKAL
LANDSCAPE ARCHITECT
No. 1022
REGISTERED LANDSCAPE ARCHITECT

SHEET
Plant List,
Notes & Details

PROJECT LOCATION
45710 Eleven Mile Road
Lathrup Village, Mi. 48187

811 Know what's below Call before you dig.

REVISIONS

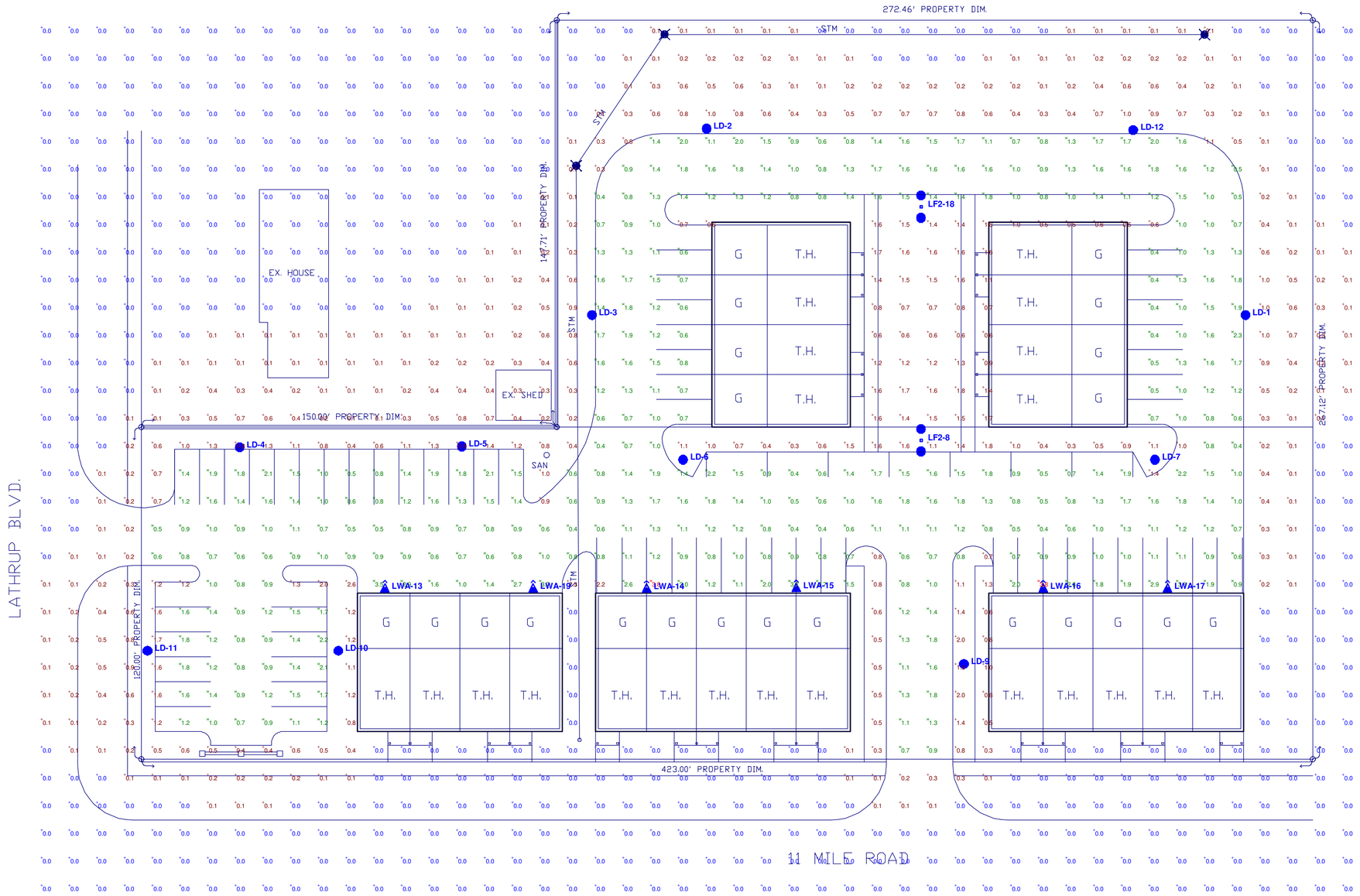
Date	Description
11/14/18	SITE PLAN RE-INSTATEMENT
11/11/15	REV. PER CITY REVIEW
08/26/15	REV. PER CITY REVIEW
06/01/15	REV. PER CITY REVIEW

Designed by:	Drawn by:
KW	KMW

Approved by:	Date:
KW	03-03-2015

Scale:
.

Job No.:	Sheet:
1056	LS-2



SITE DECORATIVE LIGHTING VALUES AT GRADE
Scale 1" = 20'

LUMINAIRE LOCATIONS

No.	Label	Location X	Location Y	MH	Orientation	Tilt
1	LD	112.7	160.4	18.0	270.0	0.0
2	LD	-81.9	227.8	18.0	180.0	0.0
3	LD	-123.3	160.4	18.0	90.0	0.0
4	LD	-250.5	112.7	18.0	180.0	0.0
5	LD	-170.3	113.0	18.0	180.0	0.0
6	LD	-90.4	108.1	18.0	180.0	0.0
7	LD	80.0	108.1	18.0	180.0	0.0
8	LF2	-4.5	115.2	18.0	180.0	0.0
9	LD	11.0	34.4	18.0	270.0	0.0
10	LD	-214.9	39.2	18.0	270.0	0.0
11	LD	-283.7	39.2	18.0	90.0	0.0
12	LD	72.1	227.3	18.0	180.0	0.0
13	LWA	-198.1	61.6	10.0	0.0	0.0
14	LWA	-103.6	61.5	10.0	0.0	0.0
15	LWA	-49.5	61.8	10.0	0.0	0.0
16	LWA	39.6	61.6	10.0	0.0	0.0
17	LWA	84.5	61.6	10.0	0.0	0.0
18	LF2	-4.5	199.7	18.0	180.0	0.0
19	LWA	-144.5	61.6	10.0	0.0	0.0

NOTES

1. SEE MH COLUMN OF LUMINAIRE LOCATIONS FOR MOUNTING HEIGHTS.
2. SEE LUMINAIRE SCHEDULE FOR LIGHT LOSS FACTORS.
3. CALCULATIONS ARE SHOWN IN FOOTCANDLES AT GRADE SURFACE.

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 SUITABILITY AND SAFETY. THE ENGINEER AND/OR ARCHITECT IS RESPONSIBLE TO REVIEW FOR MICHIGAN ENERGY CODE AND LIGHTING QUALITY COMPLIANCE.

STATISTICS

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Calc Zone #1	+	0.5 fc	3.8 fc	0.0 fc	N / A	N / A
PARKING & DRIVE AREAS - VALUES AT GRADE	X	1.2 fc	3.8 fc	0.4 fc	9.5:1	3.0:1

LUMINAIRE SCHEDULE

Symbol	Label	Qty	Catalog Number	Description	Lamp	File	Lumens	LLF	Watts
●	LD	11	LITHONIA #MRP LED 1 49B350/40K SR3	MRP LED GEN 1 HLM, 49LEDs, 350mA DRIVER, 4000K COLOR TEMPERATURE, TYPE 3 LENS	ONE 58.2-WATT LED, AIMED DOWN POS.	MRP_LED_1_49B350_40K_SR3.ies	Absolute	0.90	59
●●	LF2	2	LITHONIA #MRP LED 1 49B350/30K SR5	MRP LED GEN 1 HLM, 49LEDs, 350mA DRIVER, 3000K COLOR TEMPERATURE, TYPE 5 LENS	LED	MRP_LED_1_49B350_30K_SR5.ies	Absolute	0.90	118
△	LWA	6	LITHONIA #WSR LED 1 10A700/40K SR2 MVOLT	WSR LED WITH 1 MODULE, 10 LED's, 700mA DRIVER, 4000K COLOR TEMPERATURE, TYPE 2 LENS	1. LUMINAIRE OUTPUT: 1994 Lms.	WSR_LED_1_10A700_40K_SR2_MVOLT.ies	Absolute	0.90	24.1

VISUAL

LATHRUP VILLAGE DEVELOPMENT

SITE PHOTOMETRIC VALUES AT GRADE
PREPARED FOR: ORMAN ENGINEERING, LLC
GASSER BUSH ASSOCIATES

Designer
/JAB

Date
MAY 21 2015

Scale
AS NOTED

Drawing No.
#15-35986-V3

LATHRUP VILLAGE MULTI-FAMILY RESIDENCES

11 MILE ROAD/LATHRUP BLVD., LATHRUP VILLAGE, MI. 48076



PROJECT SCHEDULE

- PHASE 1 - PARKING (26 CARS) TO BEGIN PENDING APPROVALS.
- PHASE 2 - TOWNHOUSE BUILDINGS 3 AND 4 WITHIN 1 YEAR.
- PHASE 3 - TOWNHOUSE BUILDINGS 1, 2, AND 5. WITHIN 2 YEARS

11 MILE ROAD (53' 1/2 ROW)

22 TOWNHOUSE UNITS

NORTH

SITE PHASE PLAN

SCALE: 1" = 20'-0"

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PROJECT
LATHRUP VILLAGE MULTI-FAMILY RES.
11 MILE ROAD/LATHRUP BLVD.
LATHRUP VILLAGE, MI 48076

SUBJECT
SITE PHASE PLAN

ARCHITECTS
CHESTER STEMPEN ASSOCIATES • AIA
29895 GREENFIELD ROAD SOUTHFIELD, MICHIGAN 48076
(248) 557-2145 FAX: (248) 569-2855

ISSUED:
11-13-2015
SITE PLAN
REINSTATEMENT
11-14-2018

DRAWN VS
CHECKED C.R.S.
APPROVED C.R.S.
BIDS
CONSTR

DO NOT SCALE PRINTS - USE FIGURED DIMENSIONS ONLY

JOB NO.
24028

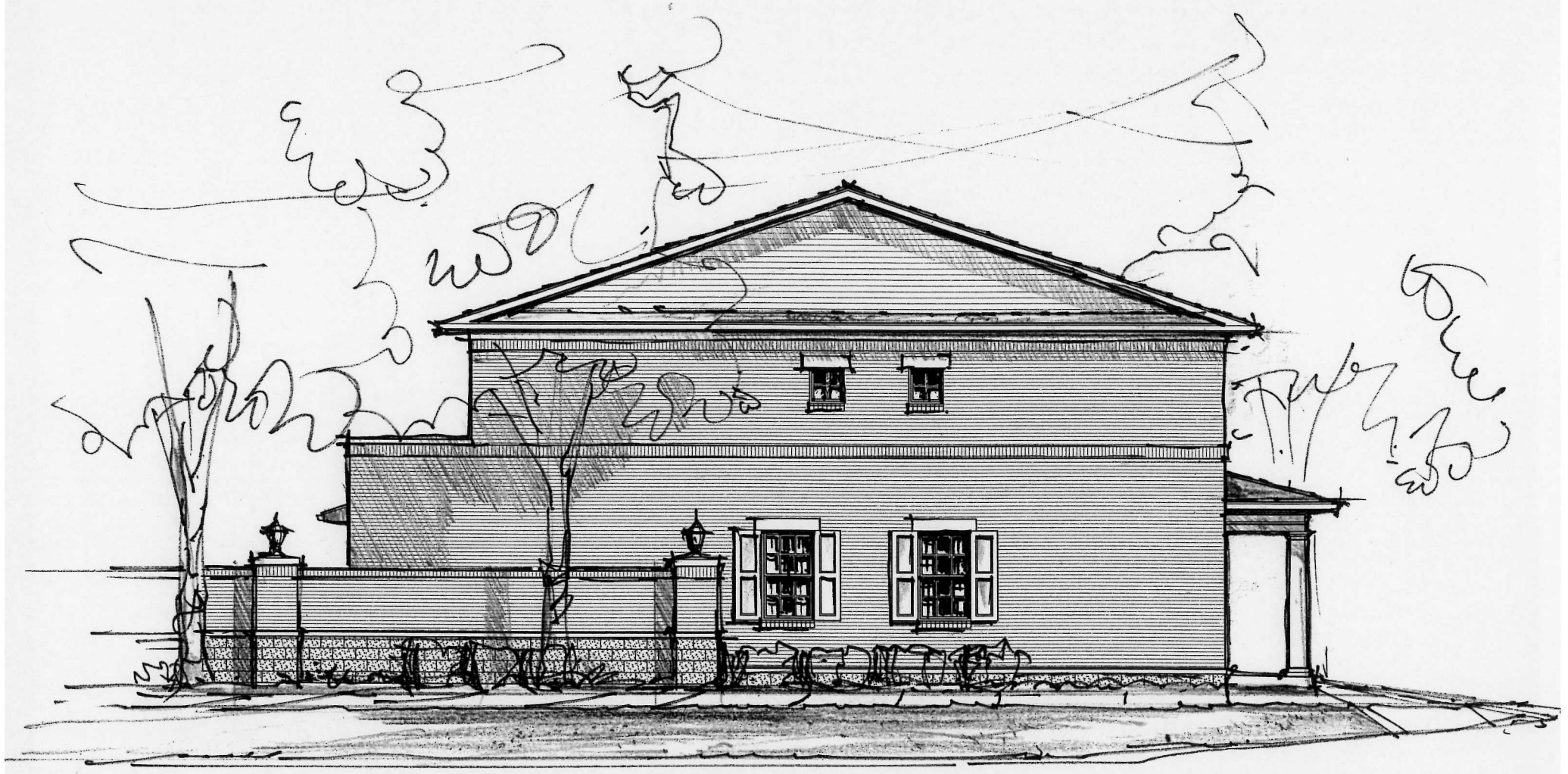
SHEET
A.1

LATHRUP MULTI-FMLY



FRONT ELEVATION - TOWNHOUSE

DEC. 15, 2015
JOB# 2014-0127



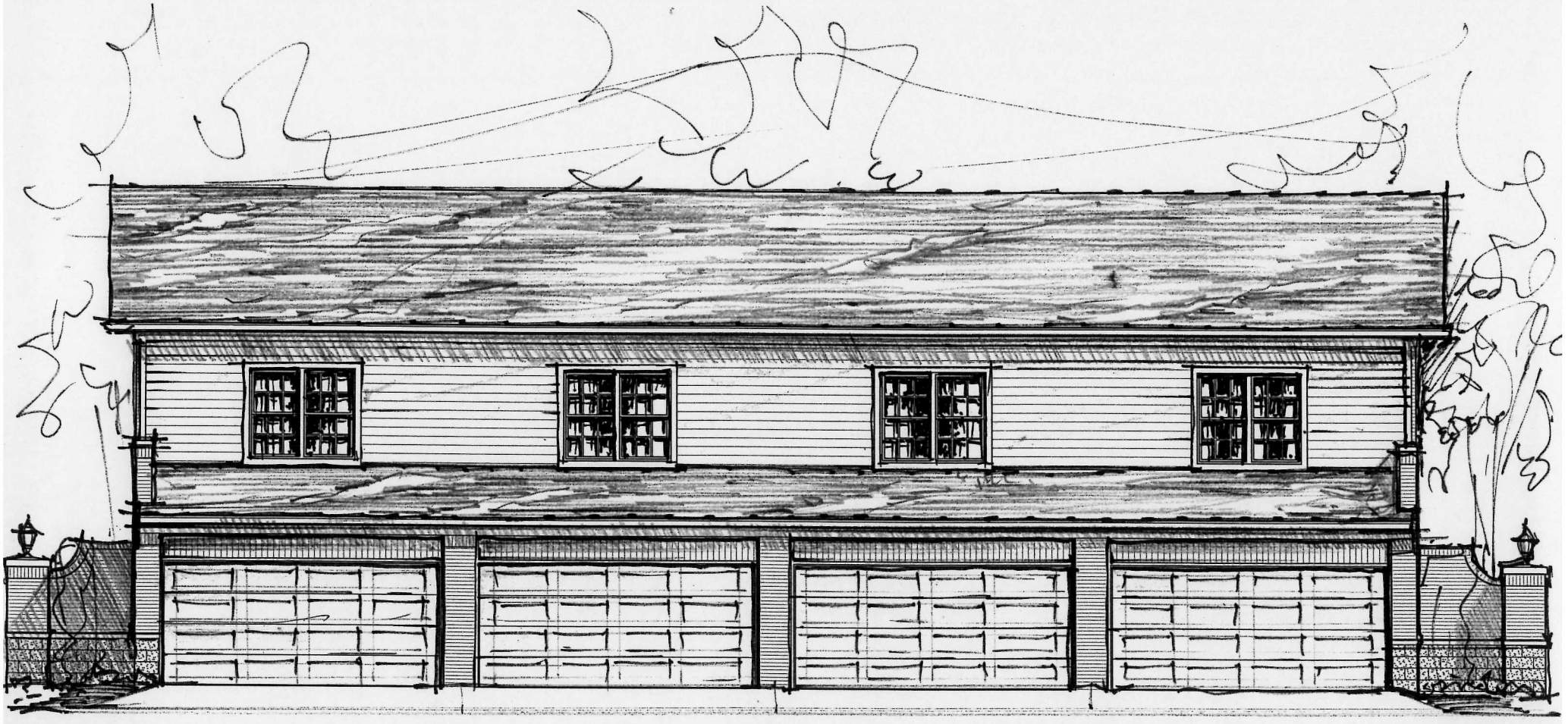
SOUTH SIDE ELEVATION - TOWNHOUSE

DEC. 15, 2015
JOB# 2014-0127



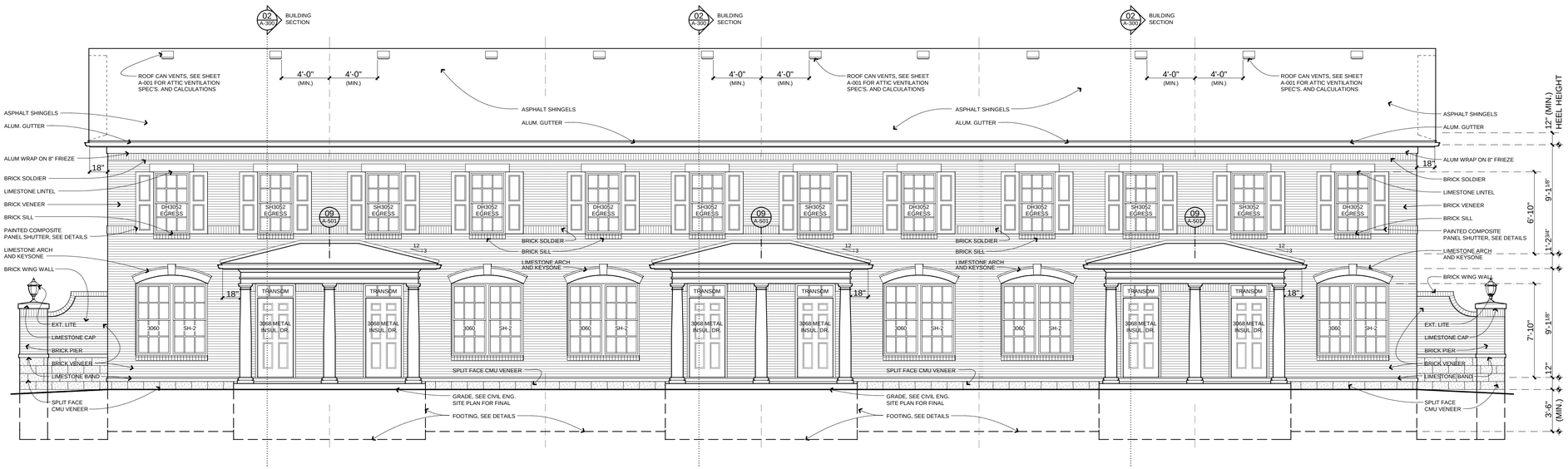
NORTH SIDE ELEVATION - TOWNHOUSE

DEC. 15, 2015
JOB# 2014-0127



REAR ELEVATION - TOWNHOUSE

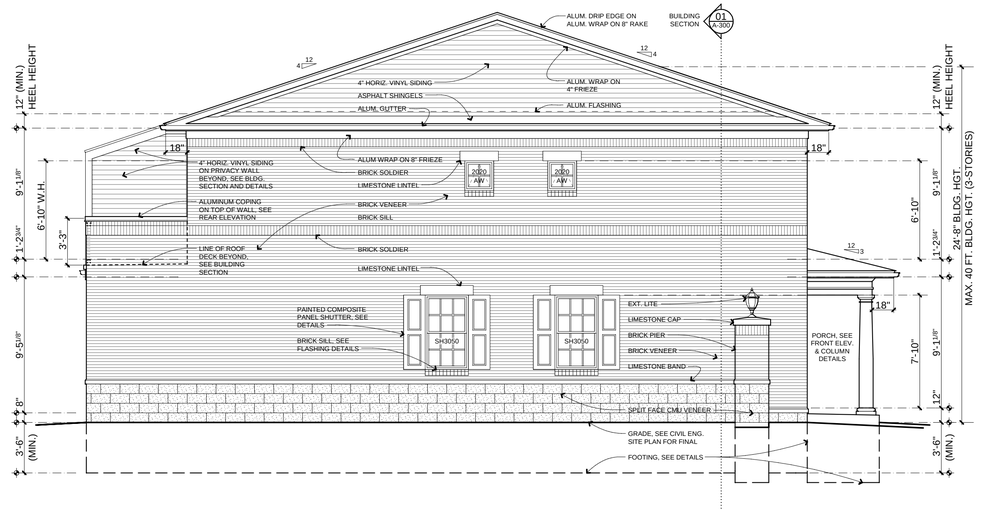
DEC. 15, 2015
JOB# 2014-0127



01 A-200

FRONT ELEVATION

SCALE: 0' 2' 4' 6' 12' 18'



02 A-200

LEFT SIDE ELEVATION

SCALE: 0' 2' 4' 6' 12' 18'

SHEET SPECIFIC NOTES

ROWHOUSE ELEVATIONS

01. GENERAL

See GENERAL NOTES on sheet A-001 for general requirements in addition to the notes below and on the elevations.

02. MATERIALS and COLORS

The materials and colors shall comply with the Peninsula Neighborhood Code, Covenants, and Deed Restrictions and the Applicant shall provide additional specifications for the materials and colors to be used on the rowhouse building depicted herein.

03. ATTIC VENTILATION REQUIREMENTS

See the GENERAL NOTES on sheet A-001 for the attic ventilation requirements and calculations for required vents.

04. WINDOW SHUTTERS

Window shutters shall be proportional to the window opening. Shutters shall be equal in height and ½ the width of the window opening and be installed as detailed on Sheet A-501, Detail 01.

05. WINDOWS and DOORS

See Note (08. and 09.) on Sheet A-001 for additional requirements and specifications of the Windows and Doors, including EGRESS, FALL PROTECTION, and SAFETY GLAZING, etc.

BUILDER/APPLICANT shall provide Window and Door product rating, energy efficiency rating, and performance data as may be required by the building official and/or to demonstrate compliance with the Michigan Energy Code.

ARCHITECTS

CHESTER STEMPIEN ASSOCIATES · AIA

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www.rlastudio.com

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PROJECT
ROWHOUSE
LATHRUP VILLAGE

(6) Unit Building

CLIENT
EIG Development
3221 W. Big Beaver Road
Suite 111
Troy, MI 48084

p. 248.817.1689

CLIENT REPRESENTATIVE
Amy Labadie

PROFESSIONAL SEAL

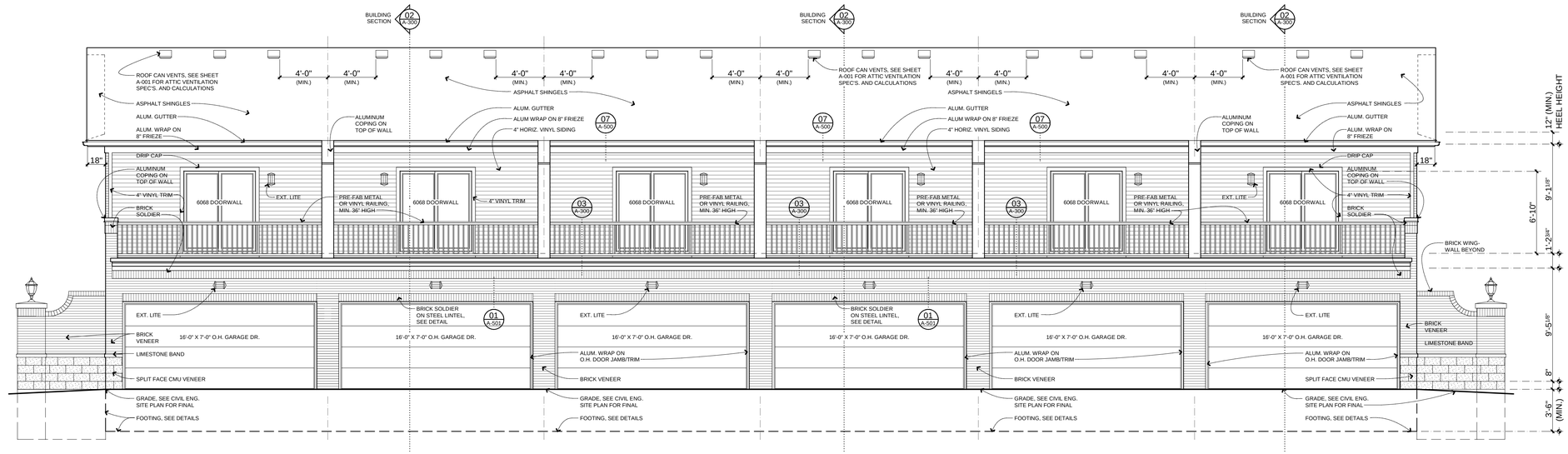
ISSUED FOR	DATE
CLIENT REVIEW-BIDDING	09.10.2015
BIDDING + revised title block	09.17.2015
BIDDING+PERMITS-PHASE 2	12.21.2015
REVISED PERMITS-PHASE 2	02.23.2016
REV PERMITS+CONST-PH-2	06.15.2016
PERMITS+CONST-rev. CLIENT	11.01.2018

SCALE
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SHEET TITLE
FRONT and LEFT SIDE ELEVATIONS

PROJECT NUMBER
2014-0127

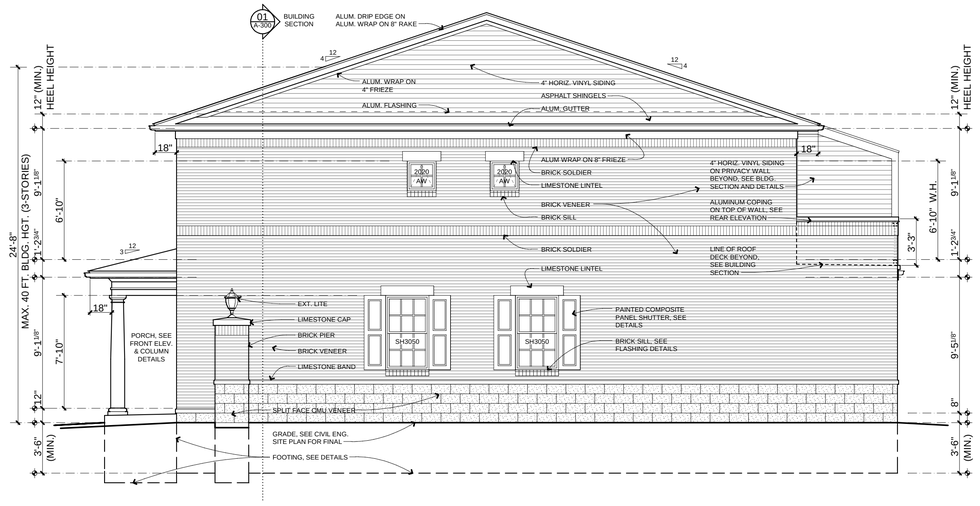
SHEET NUMBER
A-200



01 A-201

REAR ELEVATION

SCALE: 0' 2' 4' 6' 12' 18'



02 A-201

RIGHT SIDE ELEVATION

SCALE: 0' 2' 4' 6' 12' 18'

SHEET SPECIFIC NOTES

ROWHOUSE ELEVATIONS

01. GENERAL

See GENERAL NOTES on sheet A-001 for general requirements in addition to the notes below and on the elevations.

02. MATERIALS and COLORS

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ARCHITECTS

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PROJECT
ROWHOUSE
LATHRUP VILLAGE

(6) Unit Building

CLIENT
EIG Development
3221 W. Big Beaver Road
Suite 111
Troy, MI 48084

p. 248.817.1689

CLIENT REPRESENTATIVE
Amy Labadie

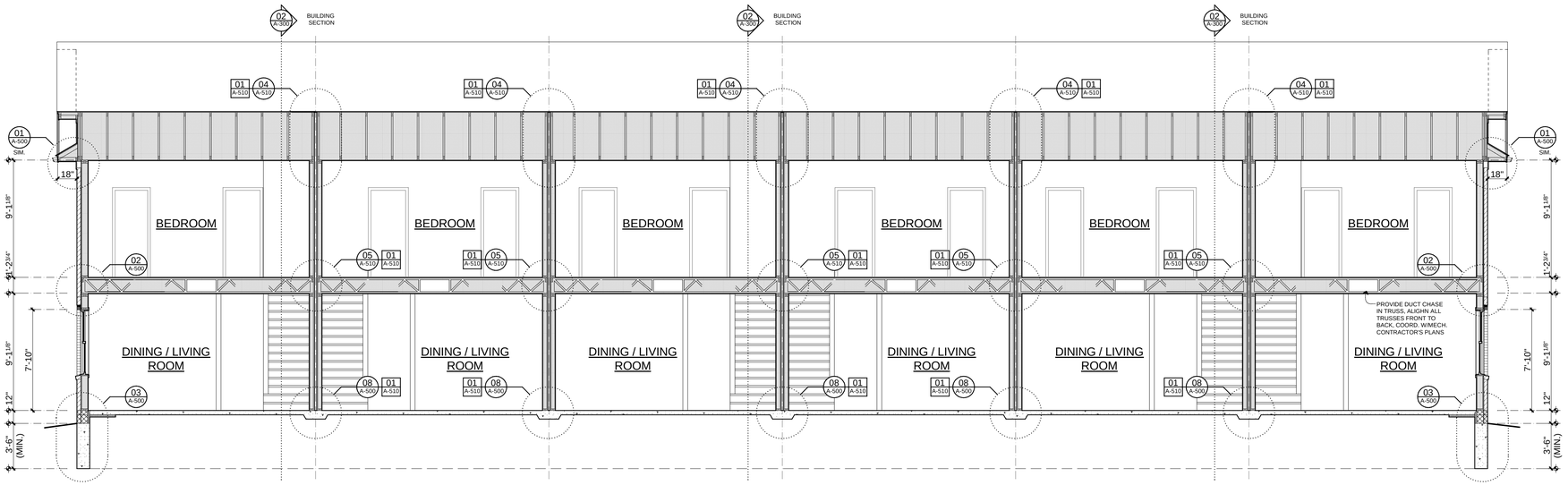
PROFESSIONAL SEAL

ISSUED FOR	DATE
CLIENT REVIEW-BIDDING	09.10.2015
BIDDING + revised title block	09.17.2015
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REVISED PERMITS-PHASE 2	02.23.2016
REV PERMITS+CONST-PH-2	06.15.2016
PERMITS+CONST-rev. CLIENT	11.01.2018

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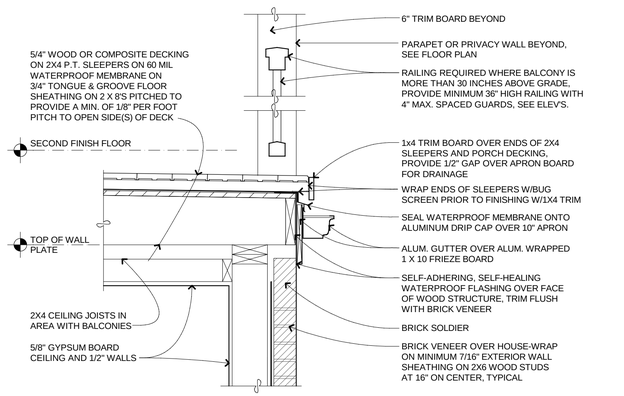
SHEET TITLE
REAR and RIGHT SIDE ELEVATIONS
PROJECT NUMBER
2014-0127

SHEET NUMBER
A-201



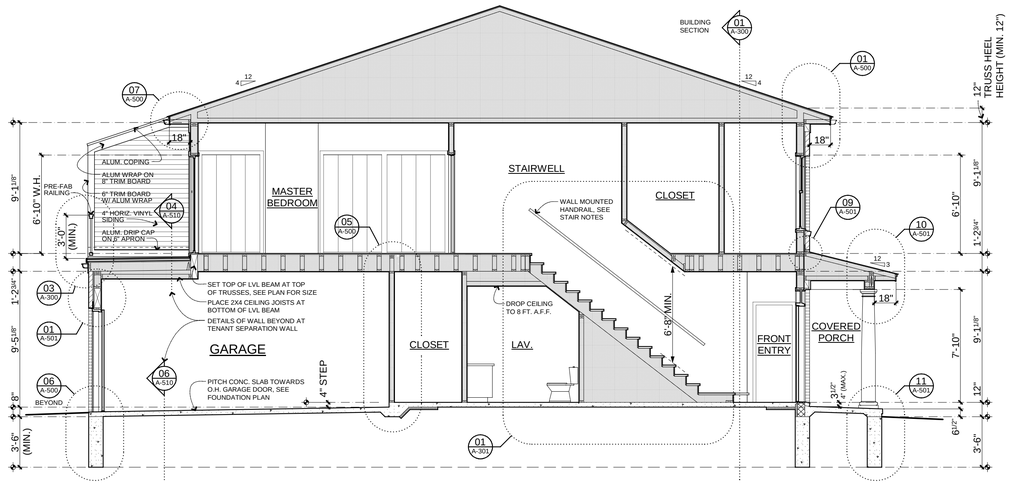
01 A-300 **BUILDING SECTION**

SCALE: 0' 2' 4' 6' 12' 18'



03 A-300 **ROOF DECK & RAILING DETAIL**

SCALE: 0" 6" 12" 24" 36"



02 A-300 **BUILDING SECTION**

SCALE: 0' 2' 4' 6' 12' 18'

SHEET SPECIFIC NOTES

ROWHOUSE STAIR AND BUILDING SECTIONS

01. GENERAL STAIR CONSTRUCTION MATERIALS

11-1/4" TREADS
1X8 RISERS
2X12 STRINGERS

02. STAIR DIMENSIONS

Stair dimensions for both interior and exterior stairs shall be as dimensioned and noted herein and per the referenced PROJECT CODES, see the GENERAL CONDITIONS on sheet A-000.

a. Maximum riser height = 8 1/4". The riser variance shall not exceed 3/8" within any flight of stairs.
b. Minimum tread depth = 9" plus nosing.
c. Winders shall not be less than 6" at the narrowest point and not less than 10" at a point 12" from the narrowest side of the tread.
d. A continuous handrail shall be located on the side where the tread is narrower.
e. A nosing of not less than 3/4" and not more than 1 1/4" shall be provided on stairways with solid risers. Nosing is not required with treads greater than 11".

03. HANDRIALS

Handrails shall be provided on one side (less than 44" in width) of stairways having 4 or more risers. A handrail shall be mounted between 34" and 38" above the line of nosing and shall have a minimum of 1-1/2" space between wall and rail. Handrails must extend for the full length of the stair run and shall be returned to the wall or terminate in a newel, post, or safety terminal.

Handrail grip size shall be 1-1/4" to 2" in diameter if the cross section is circular. If the cross section is non-circular, it shall have a perimeter dimension of at least 4" and not more than 6-1/4" with the largest cross sectional dimension not greater than 2-1/4". All handrail edges shall have a minimum of 1/8" radius.

04. GUARDRIALS

Guardrails a minimum 36" in height shall be provided on open sides of porches, balconies, and other raised floor areas located more than 30" above adjacent floor area or grade below.

Guardrails shall be provided on open sides of stairways where the total rise is more than 30" above the adjacent floor area or grade below. Guardrails shall be a minimum of 34" high with spindles spaced such that a sphere of 4" diameter cannot pass between rails.

05. UNDER STAIR FIRE PROTECTION

Under stair protection for enclosed spaces under stairs shall be provided by having walls, under-stair surface, and all soffits protected on the enclosed side with minimum 1/2" non-rated gypsum board.

ARCHITECTS
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PROJECT
ROWHOUSE
LATHRUP VILLAGE

(6) Unit Building

CLIENT
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Troy, MI 48084

p. 248.817.1689

CLIENT REPRESENTATIVE
Amy Labadie

PROFESSIONAL SEAL

ISSUED FOR	DATE
CLIENT REVIEW-BIDDING	09.10.2015
BIDDING + revised title block	09.17.2015
BIDDING+PERMITS-PHASE 2	12.21.2015
REVISED PERMITS-PHASE 2	02.23.2016
REV PERMITS+CONST-PH-2	06.15.2016
PERMITS+CONST-rev. CLIENT	11.01.2018

SCALE
DO NOT SCALE DRAWINGS
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SHEET TITLE
BUILDING SECTIONS

PROJECT NUMBER
2014-0127

SHEET NUMBER
A-300