

French Landing - Phase II

12090 Haggerty Road Van Buren Township, Michigan 48111

Issued for Bids: June 21, 2022

Landscape Park Improvements

Project Number: V05-221

Project Sponsor



Van Buren Charter Township
46425 Tyler Road
Van Buren Michigan 48111

Landscape Architect



Irrigation

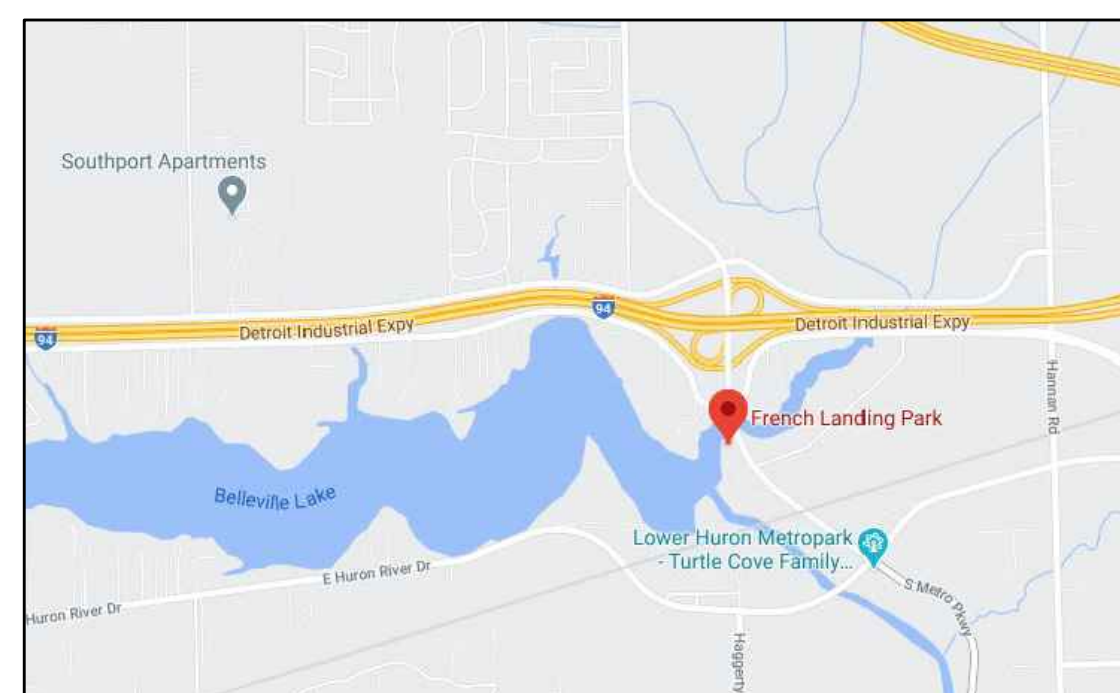


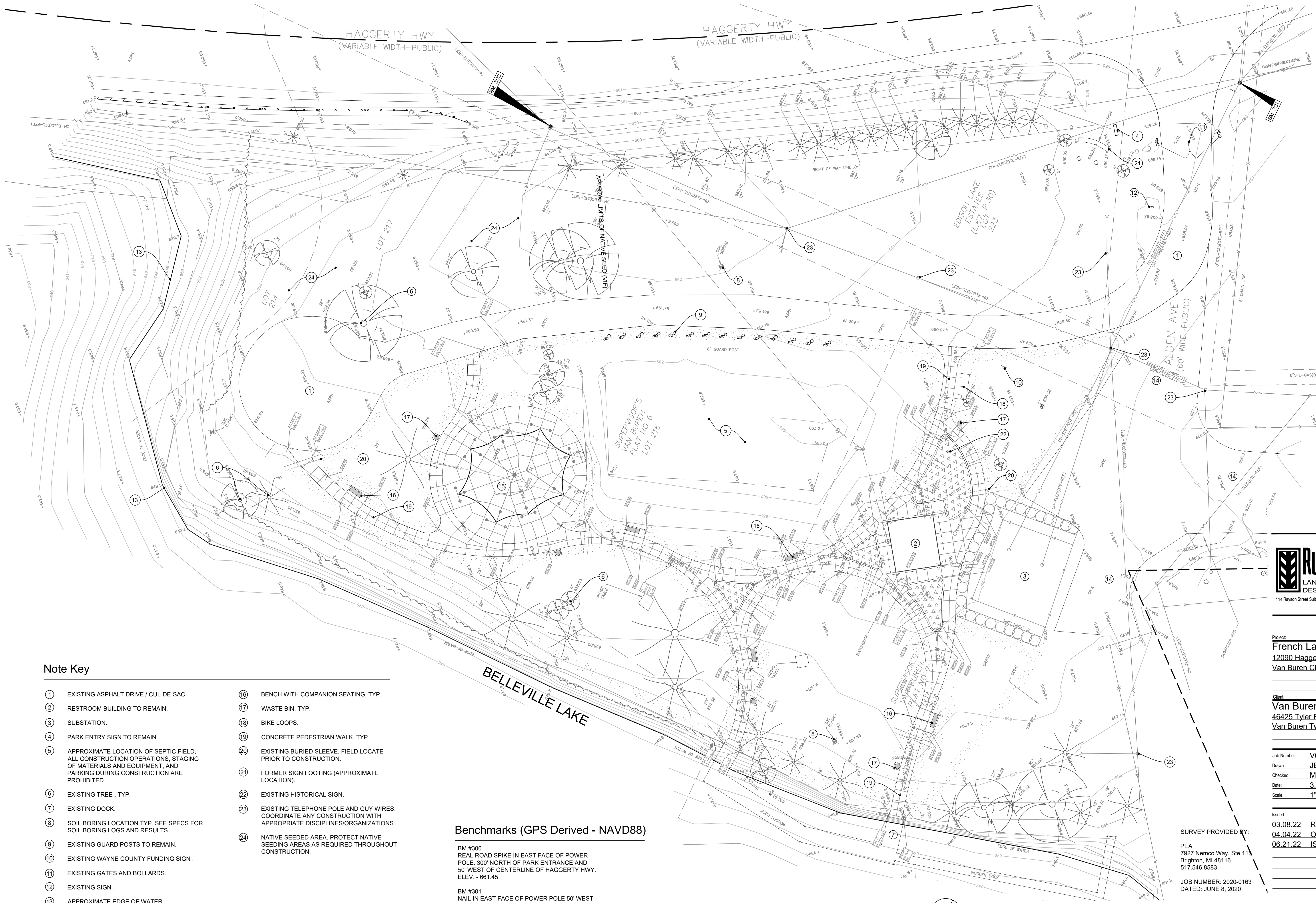
4843 Kittery NW
Comstock Park, Michigan 49321
Tel. (248) 789-0330
email: abarnes@lqassets.org
www.lqassets.org

List of Drawings

- COVER
- L-1 EXISTING CONDITIONS
- L-2 DEMOLITION PLAN
- L-3 LAYOUT PLAN
- L-4 GRADING PLAN
- L-5 LANDSCAPE PLAN
- L-6 LANDSCAPE DETAILS
- L-7 LANDSCAPE DETAILS
- IR-1 IRRIGATION PLAN & DETAILS

Location Map





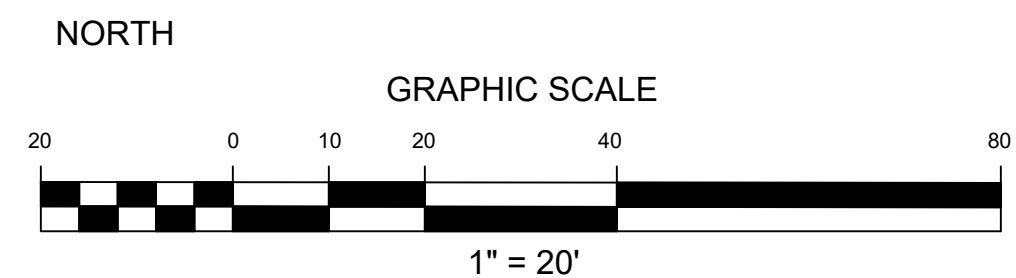
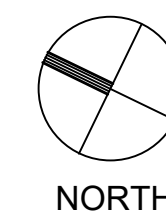
Note Key

- | | |
|--|---------------------------------------|
| ① EXISTING ASPHALT DRIVE / CUL-DE-SAC. | ⑩ EXISTING WAYNE COUNTY FUNDING SIGN. |
| ② RESTROOM BUILDING TO REMAIN. | ⑪ EXISTING GATES AND BOLLARDS. |
| ③ SUBSTATION. | ⑫ EXISTING SIGN. |
| ④ PARK ENTRY SIGN TO REMAIN. | ⑬ APPROXIMATE EDGE OF WATER. |
| ⑤ APPROXIMATE LOCATION OF SEPTIC FIELD. ALL CONSTRUCTION OPERATIONS, STAGING OF MATERIALS AND EQUIPMENT, AND PARKING DURING CONSTRUCTION ARE PROHIBITED. | ⑭ EXISTING GRAVEL DRIVE. |
| ⑥ EXISTING TREE, TYP. | ⑮ EXISTING TENSILE STRUCTURE. |
| ⑦ EXISTING DOCK. | |
| ⑧ SOIL BORING LOCATION TYP. SEE SPECS FOR SOIL BORING LOGS AND RESULTS. | |
| ⑨ EXISTING GUARD POSTS TO REMAIN. | |
| ⑯ CONCRETE PEDESTRIAN WALK, TYP. | |
| ⑰ WASTE BIN, TYP. | |
| ⑱ BIKE LOOPS. | |
| ⑲ EXISTING BURIED SLEEVE. FIELD LOCATE PRIOR TO CONSTRUCTION. | |
| ⑳ FORMER SIGN FOOTING (APPROXIMATE LOCATION). | |
| ㉑ EXISTING HISTORICAL SIGN. | |
| ㉒ EXISTING TELEPHONE POLE AND GUY WIRES. COORDINATE ANY CONSTRUCTION WITH APPROPRIATE DISCIPLINES/ORGANIZATIONS. | |
| ㉓ NATIVE SEEDING AREA. PROTECT NATIVE SEEDING AREAS AS REQUIRED THROUGHOUT CONSTRUCTION. | |

Benchmarks (GPS Derived - NAVD88)

BM #300
REAL ROAD SPIKE IN EAST FACE OF POWER POLE. 300' NORTH OF PARK ENTRANCE AND 50' WEST OF CENTERLINE OF HAGGERTY HWY. ELEV. - 661.45

BM #301
NAIL IN EAST FACE OF POWER POLE 50' WEST OF CENTERLINE OF HAGGERTY HWY. AND 20' SOUTH OF PARK ENTRANCE ELEV. - 660.11



RUSSELL DESIGN
LANDSCAPE ARCHITECTURE
DESIGN ■ ■ ■ PLANNING
114 Rayson Street Suite 2A Northville, MI 48167 P. 248.374.3222

Project:
French Landing - Phase II
12090 Haggerty Road
Van Buren Charter Township

Client:
Van Buren Township
46425 Tyler Road
Van Buren Twp, MI 48111

Job Number: V05-221
Drawn: JBG
Checked: MRR
Date: 3.8.22
Scale: 1" = 20' - 0"

Issued:
03.08.22 REVIEW
04.04.22 OWNER REVIEW
06.21.22 ISSUED FOR BIDS

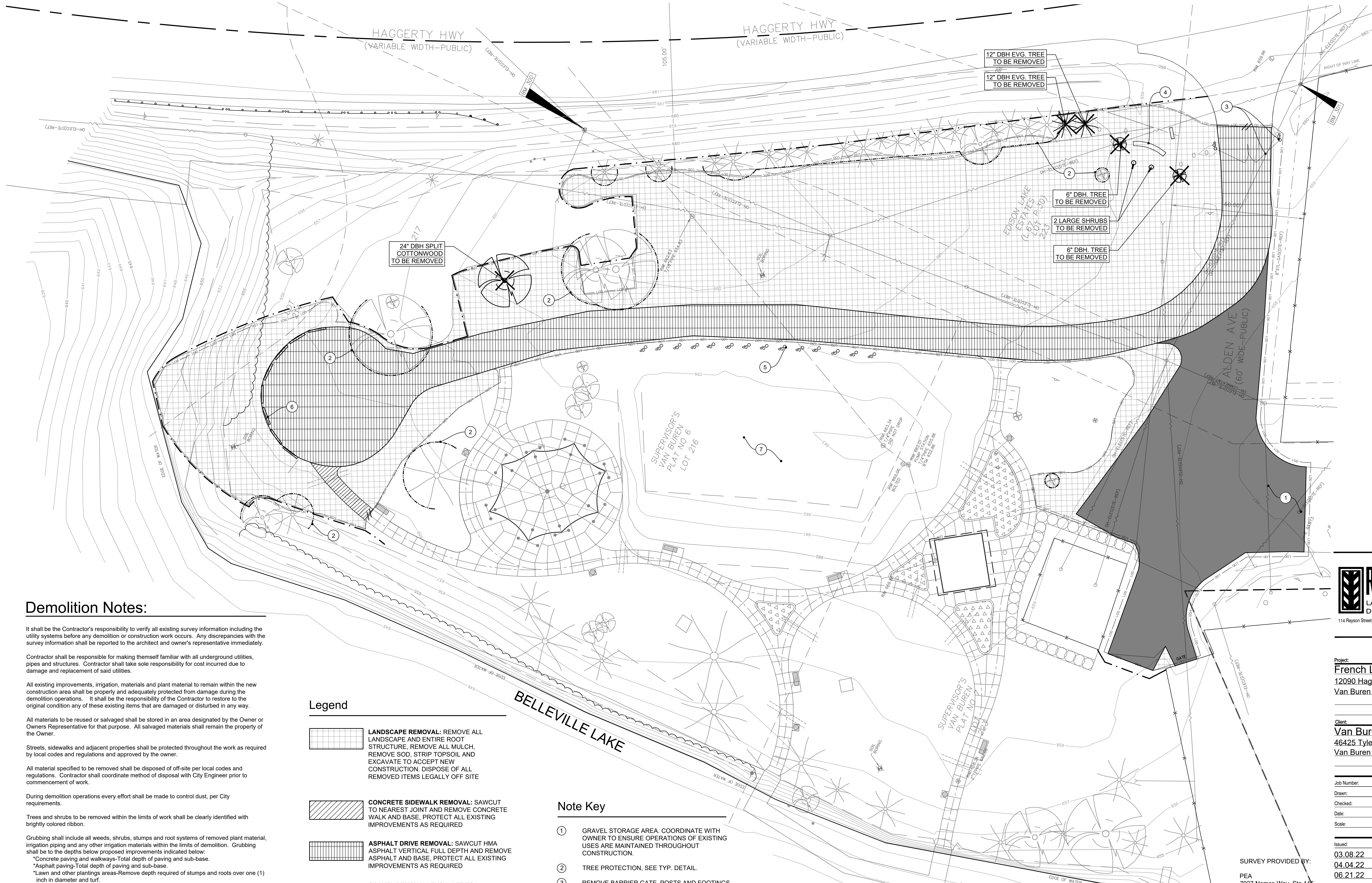
SURVEY PROVIDED BY:
PEA
7927 Nemco Way, Ste. 113
Brighton, MI 48116
517.546.8583

JOB NUMBER: 2020-0163
DATED: JUNE 8, 2020

3 FULL WORKING DAYS BEFORE YOU DIG CALL



Sheet Number: **L-1**
© 2022 Russell Design, Inc.



Demolition Notes:

It shall be the Contractor's responsibility to verify all existing survey information including the utility systems before any demolition or construction work occurs. Any discrepancies with the survey information shall be reported to the architect and owner's representative immediately.

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

All existing improvements, irrigation, materials and plant material to remain within the new construction area shall be properly and adequately protected from damage during the demolition operations. It shall be the responsibility of the Contractor to restore to the original condition any of these existing items that are damaged or disturbed in any way.

All materials to be reused or salvaged shall be stored in an area designated by the Owner or Owners Representative for that purpose. All salvaged materials shall remain the property of the Owner.

Streets, sidewalks and adjacent properties shall be protected throughout the work as required by local codes and regulations and approved by the owner.

All material specified to be removed shall be disposed of off-site per local codes and regulations. Contractor shall coordinate method of disposal with City Engineer prior to commencement of work.

During demolition operations every effort shall be made to control dust, per City requirements.

Trees and shrubs to be removed within the limits of work shall be clearly identified with brightly colored ribbon.

Grubbing shall include all weeds, shrubs, stumps and root systems of removed plant material, irrigation piping and any other irrigation materials within the limits of demolition. Grubbing shall be to the depths below proposed improvements indicated below:
 *Concrete paving and walkways-Total depth of paving and sub-base.
 *Asphalt paving-Total depth of paving and sub-base.
 *Lawn and other plantings areas-Remove depth required of stumps and roots over one (1) inch in diameter and turf.

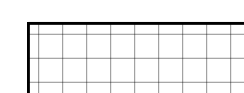



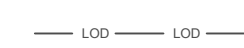
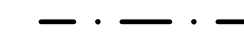
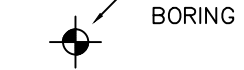
Protect existing trees to remain per typical tree protection detail.

Sawcut and remove existing asphalt as required to install new site improvements and adjust grades within City streets. All work within City right of way shall meet City standards and specifications.

Arrange for applicable utility company to relocate existing cables, wires, phone lines, etc. along with Edison power lines as required.

Contractor shall secure and pay for all applicable permits and fees if applicable for the complete construction of the project.

Legend

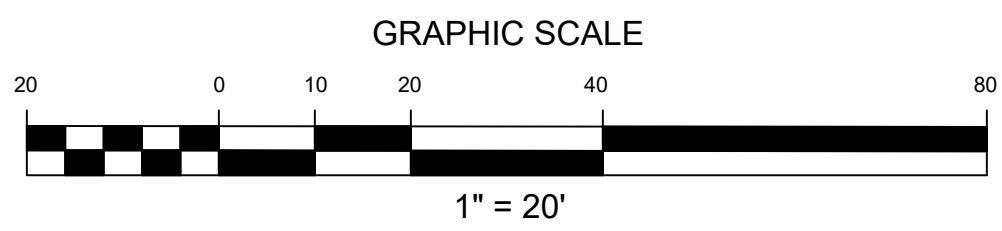
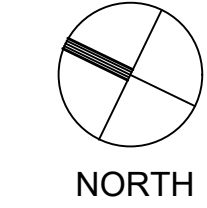
-  **LANDSCAPE REMOVAL:** REMOVE ALL LANDSCAPE AND ENTIRE ROOT STRUCTURE. REMOVE ALL MULCH, REMOVE SOD, STRIP TOPSOIL AND EXCAVATE TO ACCEPT NEW CONSTRUCTION. DISPOSE OF ALL REMOVED ITEMS LEGALLY OFF-SITE
-  **CONCRETE SIDEWALK REMOVAL:** SAWCUT TO NEAREST JOINT AND REMOVE CONCRETE WALK AND BASE. PROTECT ALL EXISTING IMPROVEMENTS AS REQUIRED
-  **ASPHALT DRIVE REMOVAL:** SAWCUT HMA ASPHALT VERTICAL FULL DEPTH AND REMOVE ASPHALT AND BASE. PROTECT ALL EXISTING IMPROVEMENTS AS REQUIRED
-  **GRAVEL REMOVAL:** EXCAVATE TO ACCEPT NEW CONSTRUCTION. SEE TYP. DETAILS.
-  APPROXIMATE LIMIT OF WORK, SEE LAYOUT AND GRADING PLANS.
-  SILT FENCE, SEE TYP. DETAILS.
-  SOIL BORING LOCATION, SEE SPECS FOR BORING LOGS AND RESULTS.

Note Key

- 1 GRAVEL STORAGE AREA. COORDINATE WITH OWNER TO ENSURE OPERATIONS OF EXISTING USES ARE MAINTAINED THROUGHOUT CONSTRUCTION.
- 2 TREE PROTECTION, SEE TYP. DETAIL.
- 3 REMOVE BARRIER GATE, POSTS AND FOOTINGS.
- 4 FIELD LOCATE AND REMOVE FORMER SIGN FOOTING.
- 5 EXISTING BOLLARDS TO REMAIN. PROTECT DURING CONSTRUCTION. CLEAN, AND PREP FOR PAINTING, SEE NOTE ON SHEET L-3.
- 6 EXISTING BUMPER BLOCKS IN CUL-DE-SAC. (APPROXIMATELY 8 TOTAL, VERIFY IN FIELD) REMOVE AND DISPOSE OF LEGALLY OFF-SITE.
- 7 APPROXIMATE LOCATION OF SEPTIC FIELD. ALL CONSTRUCTION OPERATIONS, STAGING OF MATERIALS AND EQUIPMENT, AND PARKING DURING CONSTRUCTION ARE PROHIBITED.

ALTERNATE 2 (ASPHALT)

IN LIEU OF REMOVING ASPHALT TO FULL DEPTH AND REMOVING FROM SITE, SUBSTITUTE MILLING, GRADING, AND SUPPLEMENT WITH 21AA LIMESTONE AS REQUIRED. SEE TYP. DETAILS AND GRADING PLAN



Project:
French Landing - Phase II
 12090 Haggerty Road
 Van Buren Charter Township

Client:
Van Buren Township
 46425 Tyler Road
 Van Buren Twp, MI 48111

Job Number: V05-221
 Drawn: JBG
 Checked: MRR
 Date: 3.8.22
 Scale: 1" = 20' - 0"

ISSUED:
 03.08.22 REVIEW
 04.04.22 OWNER REVIEW
 06.21.22 ISSUED FOR BIDS

SURVEY PROVIDED BY:
 PEA
 7927 Nemco Way, Ste.115
 Brighton, MI 48116
 517.546.8583

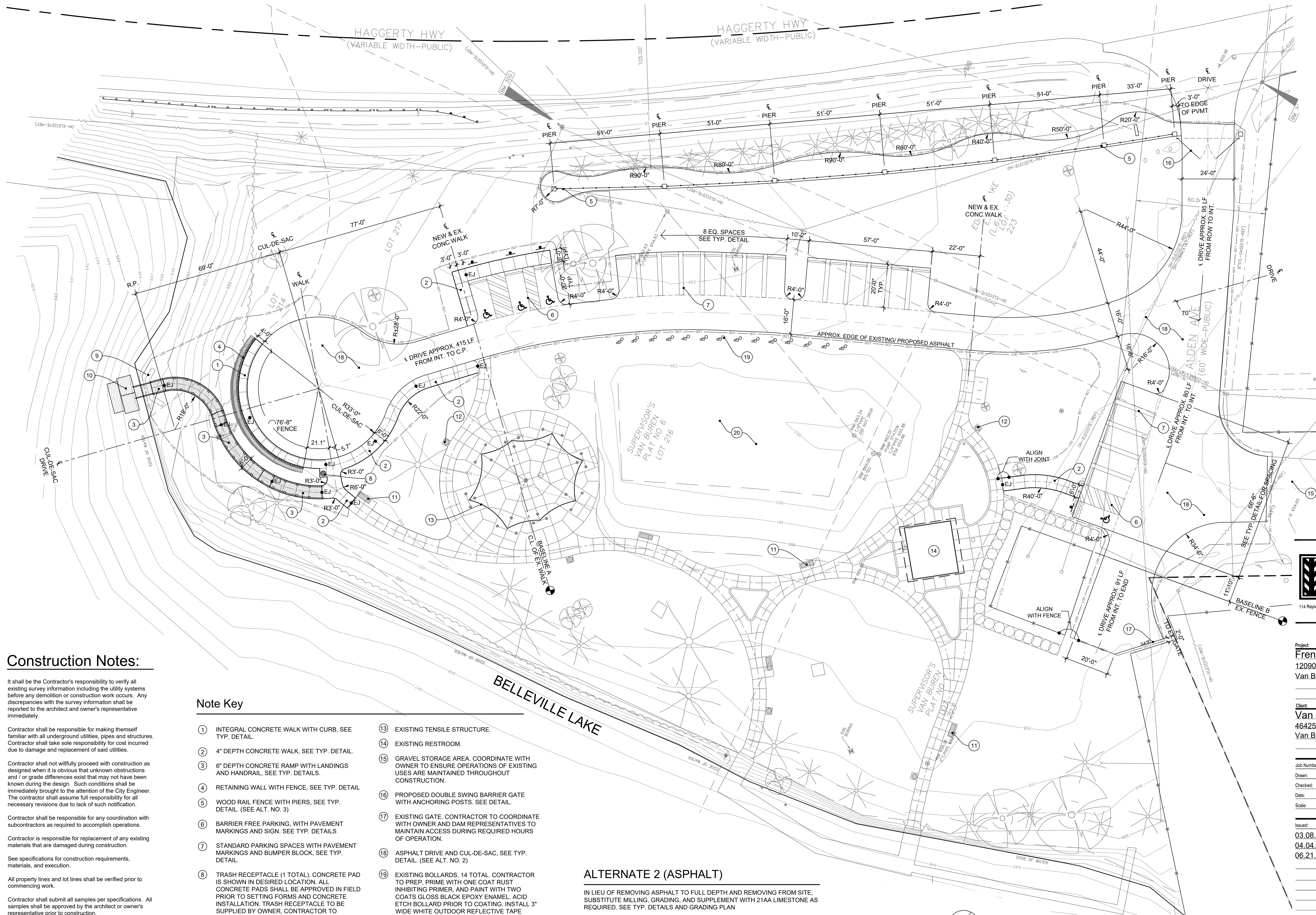
JOB NUMBER: 2020-0163
 DATED: JUNE 8, 2020

3 FULL WORKING DAYS BEFORE YOU DIG CALL



Sheet:
Demolition Plan

Sheet Number:
L-2
 © 2022 Russell Design, Inc.



Construction Notes:

It shall be the Contractor's responsibility to verify all existing survey information including the utility systems before any demolition or construction work occurs. Any discrepancies with the survey information shall be reported to the architect and owner's representative immediately.

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

Contractor shall not willfully proceed with construction as designed when it is obvious that unknown obstructions and / or grade differences exist that may not have been known during the design. Such conditions shall be immediately brought to the attention of the City Engineer. The contractor shall assume full responsibility for all necessary revisions due to lack of such notification.

Contractor shall be responsible for any coordination with subcontractors as required to accomplish operations.

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

See specifications for construction requirements, materials, and execution.

All property lines and lot lines shall be verified prior to commencing work.

Contractor shall submit all samples per specifications. All samples shall be approved by the architect or owner's representative prior to construction.

Dimensional flexibility shall be within plant beds only.

Contractor shall coordinate all site layout with the Landscape Architect and report any dimensional discrepancies prior to construction.

Handicapped ramps shall meet all current barrier free design codes.

Note Key

- | | |
|---|---|
| ① INTEGRAL CONCRETE WALK WITH CURB, SEE TYP. DETAIL. | ⑬ EXISTING TENSILE STRUCTURE. |
| ② 4" DEPTH CONCRETE WALK, SEE TYP. DETAIL. | ⑭ EXISTING RESTROOM. |
| ③ 6" DEPTH CONCRETE RAMP WITH LANDINGS AND HANDRAIL, SEE TYP. DETAILS. | ⑮ GRAVEL STORAGE AREA. COORDINATE WITH OWNER TO ENSURE OPERATIONS OF EXISTING USES ARE MAINTAINED THROUGHOUT CONSTRUCTION. |
| ④ RETAINING WALL WITH FENCE, SEE TYP. DETAIL. | ⑯ PROPOSED DOUBLE SWING BARRIER GATE WITH ANCHORING POSTS. SEE DETAIL. |
| ⑤ WOOD RAIL FENCE WITH PIERS, SEE TYP. DETAIL. (SEE ALT. NO. 3) | ⑰ EXISTING GATE. CONTRACTOR TO COORDINATE WITH OWNER AND DAM REPRESENTATIVES TO MAINTAIN ACCESS DURING REQUIRED HOURS OF OPERATION. |
| ⑥ BARRIER FREE PARKING, WITH PAVEMENT MARKINGS AND SIGN. SEE TYP. DETAILS | ⑱ ASPHALT DRIVE AND CUL-DE-SAC, SEE TYP. DETAIL. (SEE ALT. NO. 2) |
| ⑦ STANDARD PARKING SPACES WITH PAVEMENT MARKINGS AND BUMPER BLOCK, SEE TYP. DETAIL. | ⑲ EXISTING BOLLARDS, 14 TOTAL. CONTRACTOR TO PREP, PRIME WITH ONE COAT RUST INHIBITING PRIMER, AND PAINT WITH TWO COATS GLOSS BLACK EPOXY ENAMEL. ACID ETCH BOLLARD PRIOR TO COATING. INSTALL 3" WIDE WHITE OUTDOOR REFLECTIVE TAPE UNIFORMLY AROUND EACH POST, 4" BELOW TOP OF METAL POST (DISREGARD HEIGHT OF CONCRETE FILL). AVAILABLE FROM ULINE 1-800-295-5510 OR APPROVED SUBSTITUTE. |
| ⑧ TRASH RECEPTACLE (1 TOTAL). CONCRETE PAD IS SHOWN IN DESIRED LOCATION. ALL CONCRETE PADS SHALL BE APPROVED IN FIELD PRIOR TO SETTING FORMS AND CONCRETE INSTALLATION. TRASH RECEPTACLE TO BE SUPPLIED BY OWNER, CONTRACTOR TO INSTALL ONLY. | ⑳ APPROXIMATE LOCATION OF SEPTIC FIELD. ALL CONSTRUCTION OPERATIONS, STAGING OF MATERIALS AND EQUIPMENT, AND PARKING DURING CONSTRUCTION ARE PROHIBITED. |
| ⑨ FUTURE RETAINING/ SEA WALL. | |
| ⑩ FUTURE ACCESSIBLE FLOATING KAYAK LAUNCH. | |
| ⑪ EXISTING BENCH, TYP. | |
| ⑫ EXISTING WASTE BIN, TYP. | |

ALTERNATE 2 (ASPHALT)

IN LIEU OF REMOVING ASPHALT TO FULL DEPTH AND REMOVING FROM SITE, SUBSTITUTE MILLING, GRADING, AND SUPPLEMENT WITH 21AA LIMESTONE AS REQUIRED. SEE TYP. DETAILS AND GRADING PLAN

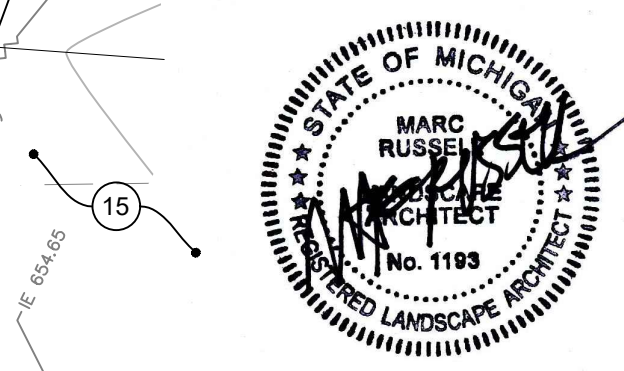
ALTERNATE 3 (HAGGERTY FRONTAGE FENCE)

IN LIEU OF PRESSURE TREATED WOOD POST WITH CEDAR RAIL FENCE, SUBSTITUTE WITH PRESSURE TREATED POST WITH COMPOSITE POST SLEEVE CAP, AND 2"x6" SQUARE EDGE RAILING.

3 FULL WORKING DAYS BEFORE YOU DIG CALL



Know what's below. Call before you dig.



RUSSELL DESIGN
LANDSCAPE ARCHITECTURE DESIGN ■ PLANNING
114 Rayson Street Suite 2A Northville, MI 48167 P. 248.374.3222

Project:
French Landing - Phase II
12090 Haggerty Road
Van Buren Charter Township

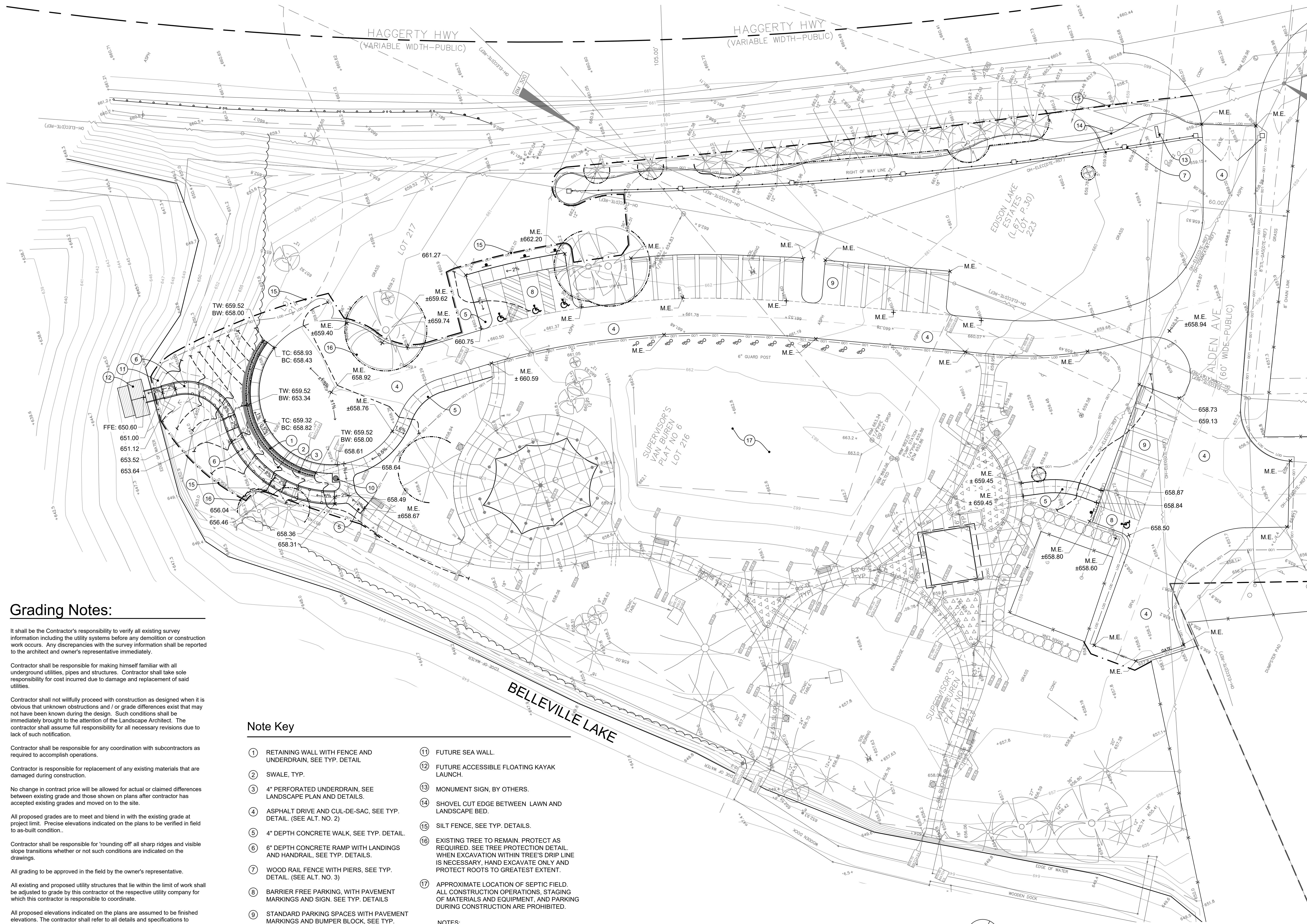
Client:
Van Buren Township
46425 Tyler Road
Van Buren Twp, MI 48111

Job Number: V05-221
Drawn: JBG
Checked: MRR
Date: 3.8.22
Scale: 1" = 20' - 0"

Issued:
03.08.22 REVIEW
04.04.22 OWNER REVIEW
06.21.22 ISSUED FOR BIDS

Sheet:
Layout Plan

Sheet Number: **L-3**
© 2022 Russell Design, Inc.



Grading Notes:

It shall be the Contractor's responsibility to verify all existing survey information including the utility systems before any demolition or construction work occurs. Any discrepancies with the survey information shall be reported to the architect and owner's representative immediately.

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

Contractor shall not willfully proceed with construction as designed when it is obvious that unknown obstructions and / or grade differences exist that may not have been known during the design. Such conditions shall be immediately brought to the attention of the Landscape Architect. The contractor shall assume full responsibility for all necessary revisions due to lack of such notification.

Contractor shall be responsible for any coordination with subcontractors as required to accomplish operations.

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

No change in contract price will be allowed for actual or claimed differences between existing grade and those shown on plans after construction has accepted existing grades and moved on to the site.

All proposed grades are to meet and blend in with the existing grade at project limit. Precise elevations indicated on the plans to be verified in field to as-built condition.

Contractor shall be responsible for 'rounding off' all sharp ridges and visible slope transitions whether or not such conditions are indicated on the drawings.

All grading to be approved in the field by the owner's representative.

All existing and proposed utility structures that lie within the limit of work shall be adjusted to grade by this contractor at the respective utility company for which this contractor is responsible to coordinate.

All proposed elevations indicated on the plans are assumed to be finished elevations. The contractor shall refer to all details and specifications to determine required sub-grade elevations.

It is the intent of the drawings that the cut and fill operations balance and that no additional material is required to be imported or exported. The contractor shall be responsible to balance the site and shall include all earthwork operations in base bid. Adjustments to the proposed elevations shall be approved by the landscape architect.

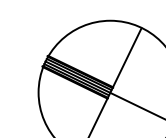
Any imported material shall be approved by the owner's representative and shall be paid for on a unit price basis.

Note Key

- | | |
|--|--|
| ① RETAINING WALL WITH FENCE AND UNDERDRAIN, SEE TYP. DETAIL. | ⑪ FUTURE SEA WALL. |
| ② SWALE, TYP. | ⑫ FUTURE ACCESSIBLE FLOATING KAYAK LAUNCH. |
| ③ 4" PERFORATED UNDERDRAIN, SEE LANDSCAPE PLAN AND DETAILS. | ⑬ MONUMENT SIGN, BY OTHERS. |
| ④ ASPHALT DRIVE AND CUL-DE-SAC, SEE TYP. DETAIL. (SEE ALT. NO. 2) | ⑭ SHOVEL CUT EDGE BETWEEN LAWN AND LANDSCAPE BED. |
| ⑤ 4" DEPTH CONCRETE WALK, SEE TYP. DETAIL. | ⑮ SILT FENCE, SEE TYP. DETAILS. |
| ⑥ 6" DEPTH CONCRETE RAMP WITH LANDINGS AND HANDRAIL, SEE TYP. DETAILS. | ⑯ EXISTING TREE TO REMAIN, PROTECT AS REQUIRED. SEE TREE PROTECTION DETAIL. WHEN EXCAVATION WITHIN TREE'S DRIP LINE IS NECESSARY, HAND EXCAVATE ONLY AND PROTECT ROOTS TO GREATEST EXTENT. |
| ⑦ WOOD RAIL FENCE WITH PIERS, SEE TYP. DETAIL. (SEE ALT. NO. 3) | ⑰ APPROXIMATE LOCATION OF SEPTIC FIELD. ALL CONSTRUCTION OPERATIONS, STAGING OF MATERIALS AND EQUIPMENT, AND PARKING DURING CONSTRUCTION ARE PROHIBITED. |
| ⑧ BARRIER FREE PARKING, WITH PAVEMENT MARKINGS AND SIGN. SEE TYP. DETAILS | |
| ⑨ STANDARD PARKING SPACES WITH PAVEMENT MARKINGS AND BUMPER BLOCK, SEE TYP. DETAIL. | |
| ⑩ TRASH RECEPTACLE, TYP. (1 TOTAL), SEE SPECS. CONCRETE PAD IS SHOWN IN DESIRED LOCATION. ALL CONCRETE PADS SHALL BE APPROVED IN FIELD PRIOR TO SETTING FORMS AND CONCRETE INSTALLATION. TRASH RECEPTACLE TO BE SUPPLIED BY OWNER, CONTRACTOR TO INSTALL ONLY. | |

NOTES:

- MEET ADJACENT PAVEMENT FLUSH AND ALIGN EDGES AT ALL LOCATIONS WHERE PROPOSED PAVEMENT ABUTS EXISTING PAVEMENT.
- ALL WALKWAYS WILL HAVE A 2% MAXIMUM CROSS SLOPE.
- M.E. = MATCH EXISTING SURFACE FLUSH



NORTH

GRAPHIC SCALE



1" = 20'

3 FULL WORKING DAYS BEFORE YOU DIG CALL



Know what's below. Call before you dig.



Project:
French Landing - Phase II
 12090 Haggerty Road
 Van Buren Charter Township

Client:
Van Buren Township
 46425 Tyler Road
 Van Buren Twp., MI 48111

Job Number: V05-221
 Drawn: JBG
 Checked: MRR
 Date: 3.8.22
 Scale: 1" = 20' - 0"

Issued:
 03.08.22 REVIEW
 04.04.22 OWNER REVIEW
 06.21.22 ISSUED FOR BIDS

Sheet:
Grading Plan

Sheet Number:
L-4
 © 2022 Russell Design, Inc.

Planting Notes:

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

The Contractor shall be responsible for contacting and coordinating with all pertinent utility companies 72 hours in advance of any digging to make themselves familiar with all underground utilities, pipes and structures. The Contractor shall take sole responsibility for any cost incurred of said utilities.

The Contractor shall not willfully proceed with construction as designed when it is obvious that unknown obstructions and/or grade differences exist. Such conditions shall be immediately brought to the attention of the owner's representative and/or Landscape Architect. The Contractor shall assume full responsibility for all necessary revisions due to failure to give such notification.

Any discrepancies between dimensioned layout and actual field conditions shall be reported to the Owner's representative and Landscape Architect. Failure to make such discrepancies known will result in the Contractor's responsibility and liability for any changes and associated cost.

The Contractor shall be responsible for any coordination with subcontractors as required to accomplish construction installation operations.

Do not scale drawings. Refer to written dimensions only.

The Contractor shall provide and maintain positive surface drainage.

The Contractor shall be responsible for any existing materials that are damaged during construction.

See specifications, plant list and planting details for planting requirements, materials and execution

All trees to have clay loam or clay balls - trees with sand balls shall not be accepted.

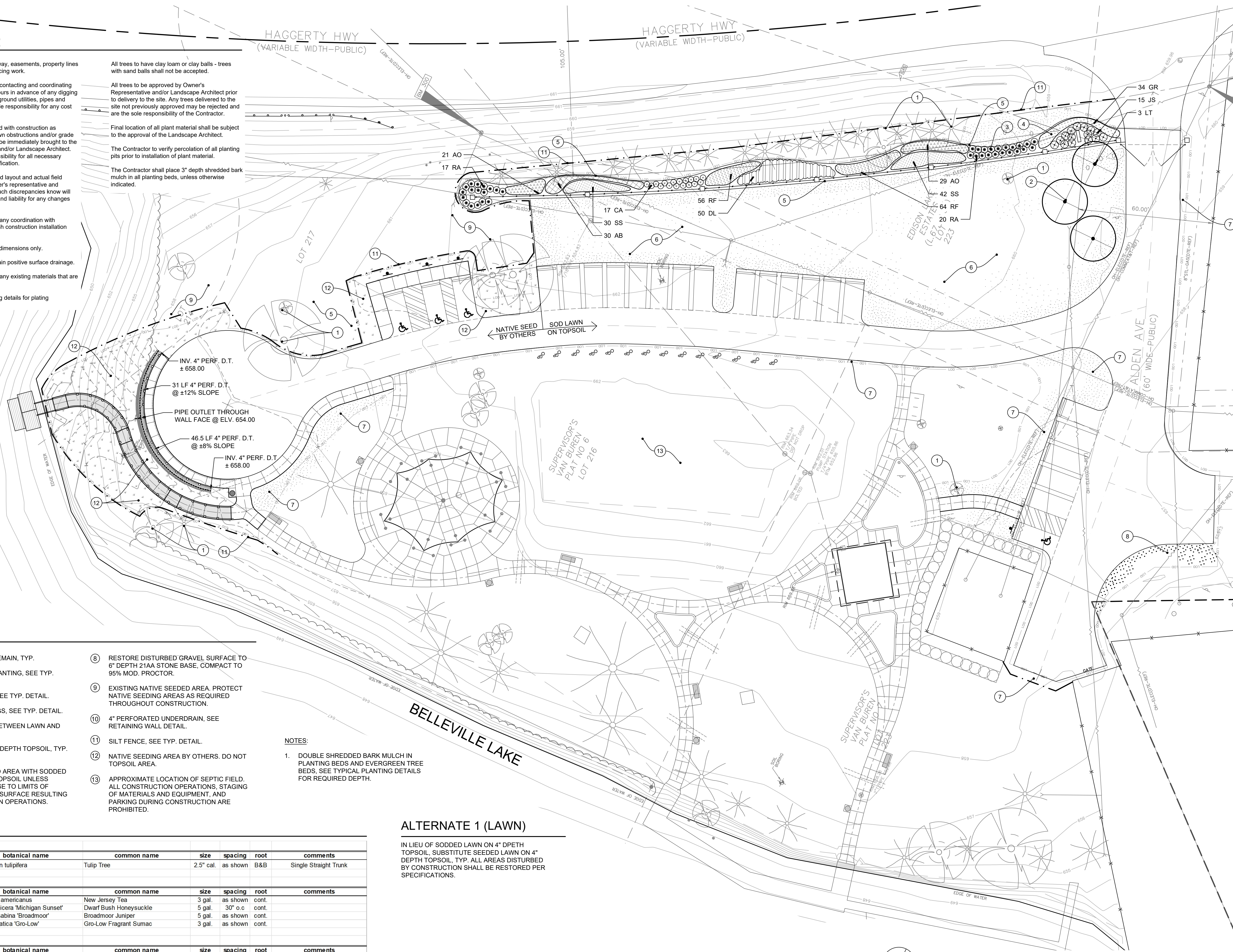
All trees to be approved by Owner's Representative and/or Landscape Architect prior to delivery to the site. Any trees delivered to the site not previously approved may be rejected and are the sole responsibility of the Contractor.

Final location of all plant material shall be subject to the approval of the Landscape Architect.

The Contractor to verify percolation of all planting pits prior to installation of plant material.

The Contractor shall place 3" depth shredded bark mulch in all planting beds, unless otherwise indicated.

HAGGERTY HWY (VARIABLE WIDTH-PUBLIC)



Note Key

- ① EXISTING TREE TO REMAIN, TYP.
- ② DECIDUOUS TREE PLANTING, SEE TYP. DETAIL.
- ③ SHRUB PLANTINGS, SEE TYP. DETAIL.
- ④ PERENNIAL PLANTINGS, SEE TYP. DETAIL.
- ⑤ SHOVEL CUT EDGE BETWEEN LAWN AND LANDSCAPE BED.
- ⑥ SODDED LAWN ON 4" DEPTH TOPSOIL, TYP. (SEE ALT. NO. 1)
- ⑦ RESTORE DISTURBED AREA WITH SODDED LAWN ON 4" DEPTH TOPSOIL UNLESS SPECIFIED OTHERWISE TO LIMITS OF RESTORED ASPHALT SURFACE RESULTING FROM CONSTRUCTION OPERATIONS.
- ⑧ RESTORE DISTURBED GRAVEL SURFACE TO 6" DEPTH 21AA STONE BASE, COMPACT TO 95% MOD. PROCTOR.
- ⑨ EXISTING NATIVE SEEDING AREA. PROTECT NATIVE SEEDING AREAS AS REQUIRED THROUGHOUT CONSTRUCTION.
- ⑩ 4" PERFORATED UNDERDRAIN, SEE RETAINING WALL DETAIL.
- ⑪ SILT FENCE, SEE TYP. DETAIL.
- ⑫ NATIVE SEEDING AREA BY OTHERS. DO NOT TOPSOIL AREA.
- ⑬ APPROXIMATE LOCATION OF SEPTIC FIELD. ALL CONSTRUCTION OPERATIONS, STAGING OF MATERIALS AND EQUIPMENT, AND PARKING DURING CONSTRUCTION ARE PROHIBITED.

NOTES:

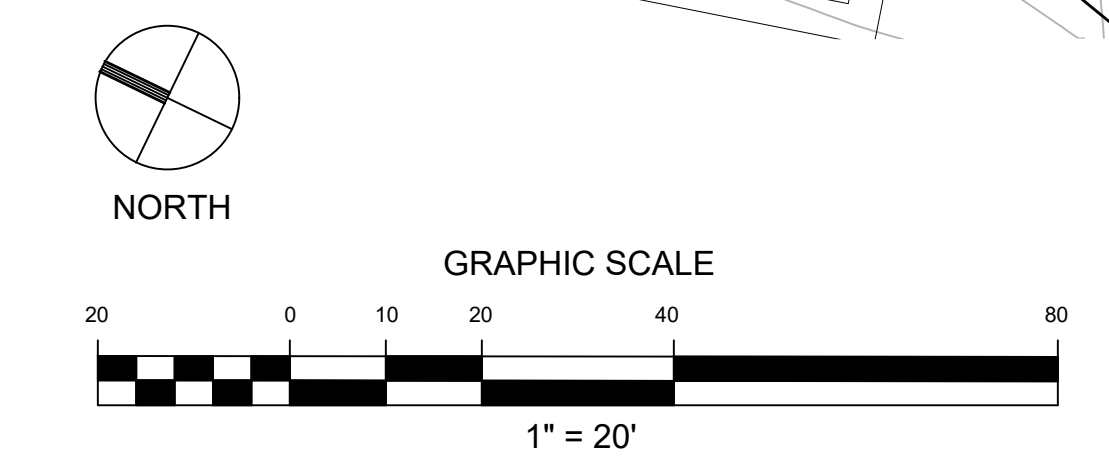
- 1. DOUBLE SHREDDED BARK MULCH IN PLANTING BEDS AND EVERGREEN TREE BEDS. SEE TYPICAL PLANTING DETAILS FOR REQUIRED DEPTH.

Plant List

Trees							
sym.	qty.	botanical name	common name	size	spacing	root	comments
LT	3	Liriodendron tulipifera	Tulip Tree	2.5" cal.	as shown	B&B	Single Straight Trunk
Shrubs							
sym.	qty.	botanical name	common name	size	spacing	root	comments
CA	17	Ceanothus americanus	New Jersey Tea	3 gal.	as shown	cont.	
DL	50	Diervilla lonicera 'Michigan Sunset'	Dwarf Bush Honeysuckle	5 gal.	30" o.c.	cont.	
JS	15	Juniperus sabina 'Broadmoor'	Broadmoor Juniper	5 gal.	as shown	cont.	
RA	37	Rhus aromatica 'Gro-Low'	Gro-Low Fragrant Sumac	3 gal.	as shown	cont.	
Ornamental Grasses							
sym.	qty.	botanical name	common name	size	spacing	root	comments
SS	72	Schizachyrium scoparium 'Blue Heaven'	Blue Heaven Little Bluestem	3 gal.	24" o.c.	cont.	
Perennials & Groundcover							
sym.	qty.	botanical name	common name	size	spacing	root	comments
AB	30	Amsonia 'Blue Ice'	Blue Star	1 gal.	24" o.c.	cont.	
AD	50	Aster oblongifolium 'October Skies'	October Skies Aster	1 gal.	24" o.c.	cont.	
GR	34	Geranium 'Rozanne'	Rozanne's Blue Cranesbill	1 gal.	24" o.c.	cont.	
RF	120	Rudbeckia fulgida 'Goldstum'	Black Eyed Susan	1 gal.	18" o.c.	cont.	

ALTERNATE 1 (LAWN)

IN LIEU OF SODDED LAWN ON 4" DPETH TOPSOIL, SUBSTITUTE SEEDDED LAWN ON 4" DEPTH TOPSOIL, TYP. ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE RESTORED PER SPECIFICATIONS.



RUSSELL DESIGN
LANDSCAPE ARCHITECTURE
DESIGN ■ ■ ■ PLANNING
114 Rayson Street Suite 2A Northville, MI 48167 P. 248.374.3222

Project:
French Landing - Phase II
12090 Haggerty Road
Van Buren Charter Township

Client:
Van Buren Township
46425 Tyler Road
Van Buren Twp, MI 48111

Job Number: V05-221
Drawn: JBG
Checked: MRR
Date: 3.8.22
Scale: 1" = 20' - 0"

Issued:
03.08.22 REVIEW
04.04.22 OWNER REVIEW
06.21.22 ISSUED FOR BIDS

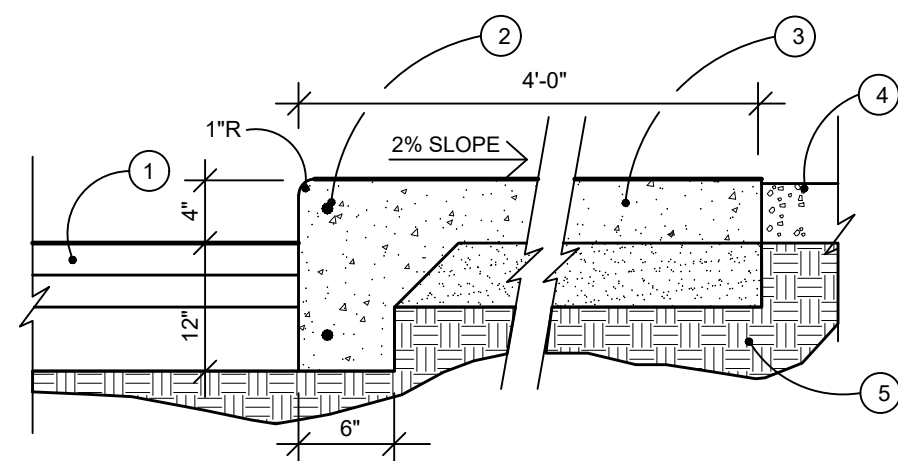
Sheet:
Landscape Plan

Sheet Number: **L-5**
© 2022 Russell Design, Inc.

3 FULL WORKING DAYS BEFORE YOU DIG CALL

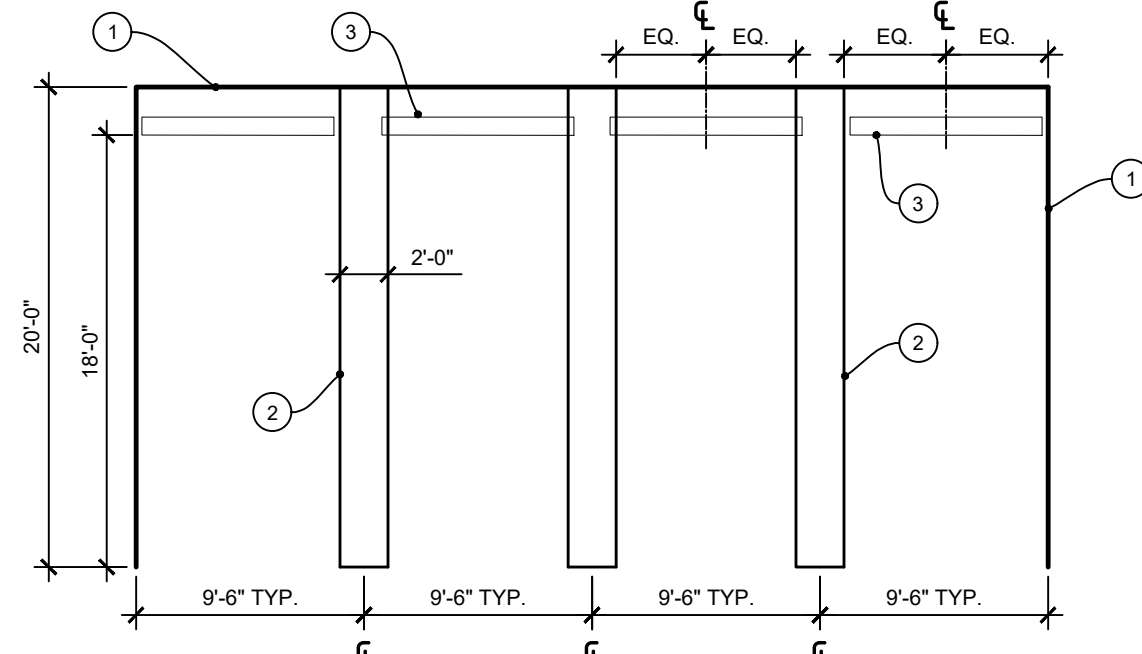


Know what's below.
Call before you dig.



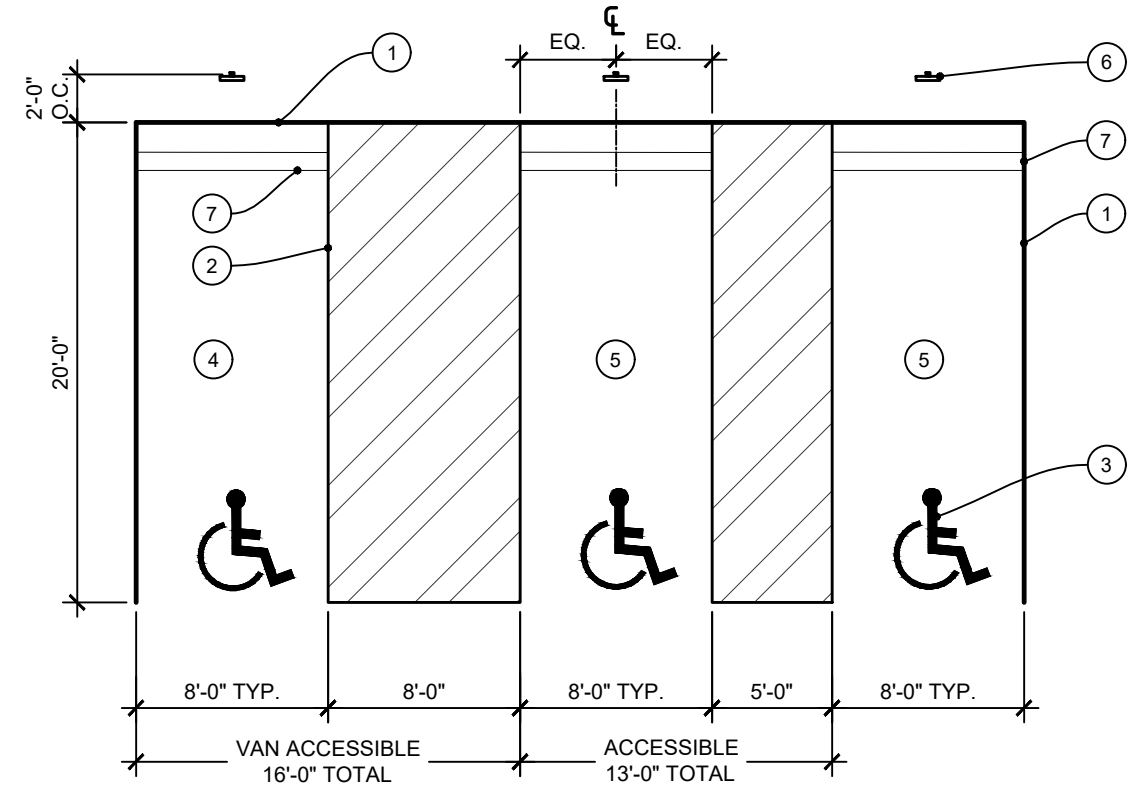
- 1 ASPHALT PAVEMENT.
- 2 #4 REINF. BAR, TOP AND BOTTOM, CONTINUOUS, CUT AT E.J.
- 3 4" CONCRETE ON 4" SAND BASE COMPACTED TO 95% MEDIUM BROOM FINISH
- 4 4" DEPTH 6A NATURAL STONE W. FENCE POSTS. SEE RETAINING WALL DETAIL.
- 5 COMPACTED SUBGRADE TO 95% UNDER PAVING AREAS

12 INTEGRAL CONC. WALK AND CURB
L-3 SCALE: 1" = 1'-0"



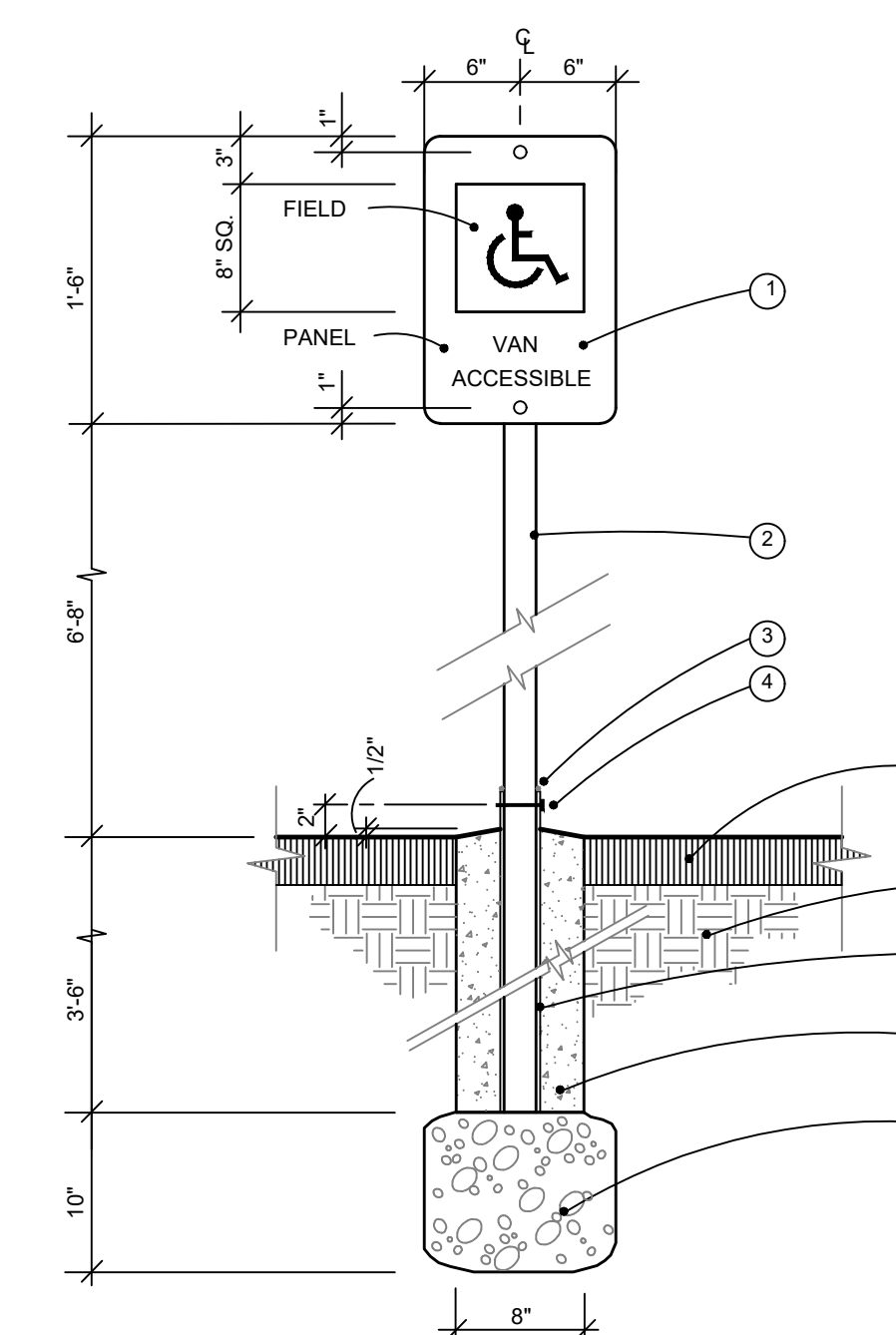
- 1 EDGE OF ASPHALT
- 2 4" WIDE YELLOW PERMANENT PAVEMENT MARKINGS, SEE SPECS.
- 3 8'-0" x 10" x 6" HT. PRECAST CONCRETE DRAIN-STYLE BUMPER BLOCK BY NUCAST (PH. (313) 532-4610) (ITEM NO. 3003-00) OR APPROVED SUBSTITUTE. SECURE WITH TWO (2) 16'-17" NO. 4 REBAR.

11 STANDARD STRIPING LAYOUT
L-3 SCALE: 1/8" = 1'-0"



- 1 EDGE OF ASPHALT
- 2 4" WIDE BLUE PERMANENT PAVEMENT MARKINGS. STRIPING TO BE IN COMPLIANCE WITH ADA STANDARDS. SEE SPECS.
- 3 PAVEMENT SYMBOL MARKINGS SHALL BE BLUE-PREFORMED THERMOPLASTIC, INSTALLED PER THE MDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION, SECTIONS 811 AND 920.
- 4 VAN ACCESSIBLE PARKING STALL
- 5 STANDARD ACCESSIBLE PARKING STALL
- 6 BARRIER FREE SIGN, SEE TYP. DETAIL
- 7 8'-0" x 10" x 6" HT. PRECAST CONCRETE DRAIN-STYLE BUMPER BLOCK BY NUCAST (PH. (313) 532-4610) (ITEM NO. 3003-00) OR APPROVED SUBSTITUTE. SECURE WITH TWO (2) 16'-17" NO. 4 REBAR.

10 BARRIER FREE STRIPING LAYOUT
L-3 SCALE: 1/8" = 1'-0"



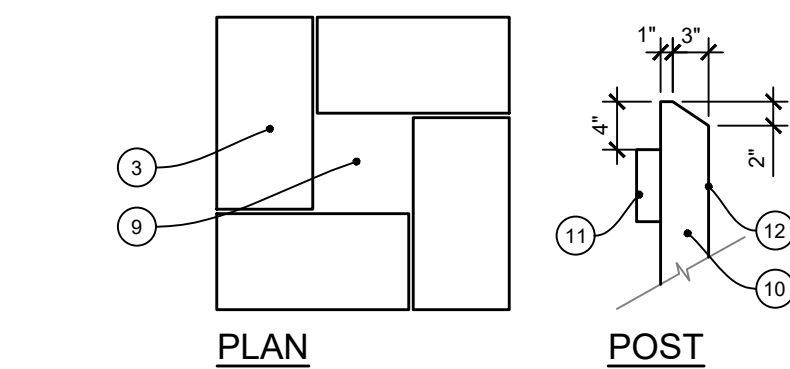
- 1 ALUMINUM BARRIER FREE SIGN PANEL: 12" x 18" SINGLE FACE MOUNT WITH (2) 1/4" SOCKET HEAD CAP BOLTS, NUT, LOCK WASHER AND DOUBLE PROTECTIVE WASHERS (10 SIGNS TOTAL, 2 VAN ACCESSIBLE)
- FIELD: WHITE
GRAPHIC SYMBOL: BLUE
PANEL: BLUE
- ALUMINUM STOP SIGN PANEL: 24" x 24" R1:1 SINGLE FACE MOUNT ATTACH PER ABOVE. (1 SIGN TOTAL)

- 2 2" x 2" STEEL POST WITH CAP, 1/8" WALL THICKNESS (PAINT BLACK)
- 3 BLACK POLYSEALANT
- 4 1/4" SOCKET HEAD CAP BOLT WITH WASHER AND LOCK WASHER, TACK WELD NUT TO SLEEVE PRIOR TO PAINTING.
- 5 FINISHED GRADE - SEE PLAN.
- 6 SUBGRADE, COMPACT PER SPECIFICATIONS.
- 7 2 1/4" x 2 1/4" STL. SLEEVE 0.109 WALL THICKNESS.
- 8 8" DIA. CONCRETE FOOTING, CROWN TOP AS SHOWN.
- 9 10" DEPTH 3/4" CLEAN, NATURAL AGGREGATE DRAIN ROCK.

NOTES:

- 1. SIGN TO BE INSTALLED 2' O.C. FROM EDGE OF PAVING, CENTERED EVENLY WITH ACCESSIBLE PARKING STALL.
- 2. GRAPHICS SHALL BE SCOTCH-LITE ADHESIVE.
- 3. POST AND SLEEVE SHALL BE PAINTED WITH 2 PART EPOXY ENAMEL, CLEAN, PREP, AND PAINT PER MANUF. RECOMMENDATIONS
- 4. SUBMIT SEALED SHOP DRAWINGS FOR APPROVAL PRIOR TO FABRICATION.

9 BARRIER FREE SIGN INSTALLATION
L-3 SCALE: 1" = 1'-0"

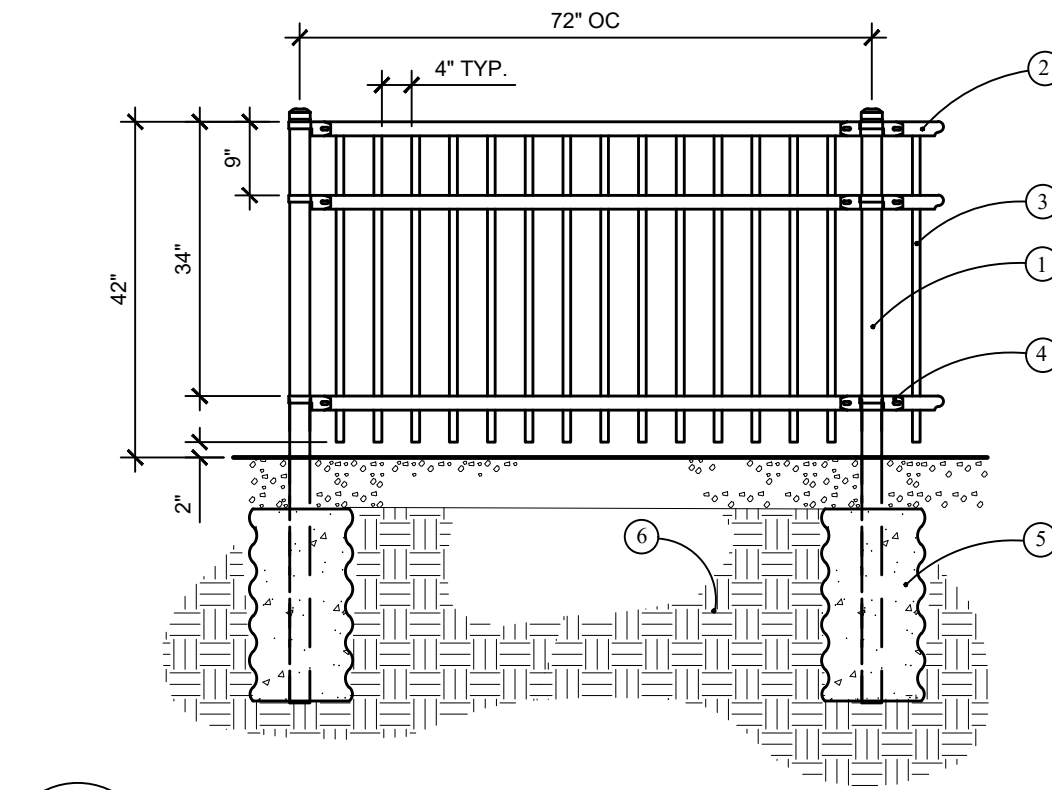


- 1 FINISHED GRADE, SEE PLANS.
- 2 CAST STONE CAP, 28" x 28" x 3", WITH 1/8" WASH, AND COPPER FABRIC FLASHING ALONG UNDERSIDE OF CAP.
- 3 STANDARD NATURAL CMU BLOCK WITH NO. 4 VERT. BARS, CONT. TO FTG., EXTEND BARS 2" INTO CAP. GROUT FILL CELLS.
- 4 POURED CONCRETE FOOTING
- 5 HORIZONTAL JOINT REINFORCEMENT LADDER NO. 9 EVERY THIRD COURSE.
- 6 COMPACTED SUBGRADE TO 95% MOD. PROCTOR.
- 7 (2) NO. 4 REIN. BARS TOP AND BOTTOM
- 8 1" MORTAR SETTING BED
- 9 OPEN CAVITY.
- 10 4"x4" P.T. FENCE POST, CUT TOP TO DRAIN, SEE DETAILS.
- 11 2"x6" CEDAR RAILS, 6'-0" O.C.
- 12 POST EXPOSED SIDE OF FENCE TO FACE PUBLIC R.O.W.
- 13 8"x42" DEPTH CONC. FOOTING, FLARE OUT BOTTOM OF FOOTING TO 12" WIDTH. HOLD FTG. DOWN AS REQUIRED FOR LANDSCAPE TREATMENT. PITCH TOP OF FOOTING TO DRAIN.
- 14 6" DEPTH 6A NATURAL AGGREGATE AT BOTTOM OF EACH FENCE POST FOR DRAINAGE.
- 15 CULTURED LIMESTONE CLADDING (TO MATCH NEW PARK ENTRY SIGN), 24" L x 12" H x 1" THICKNESS, COLOR: "HARVARD GREY". AVAILABLE FROM CORONADO STONE PRODUCTS (WWW.CORONADO.COM). USE NATURAL GREY MORTAR (SIMILAR TO STONE COLOR WHEN DRY).

NOTES:

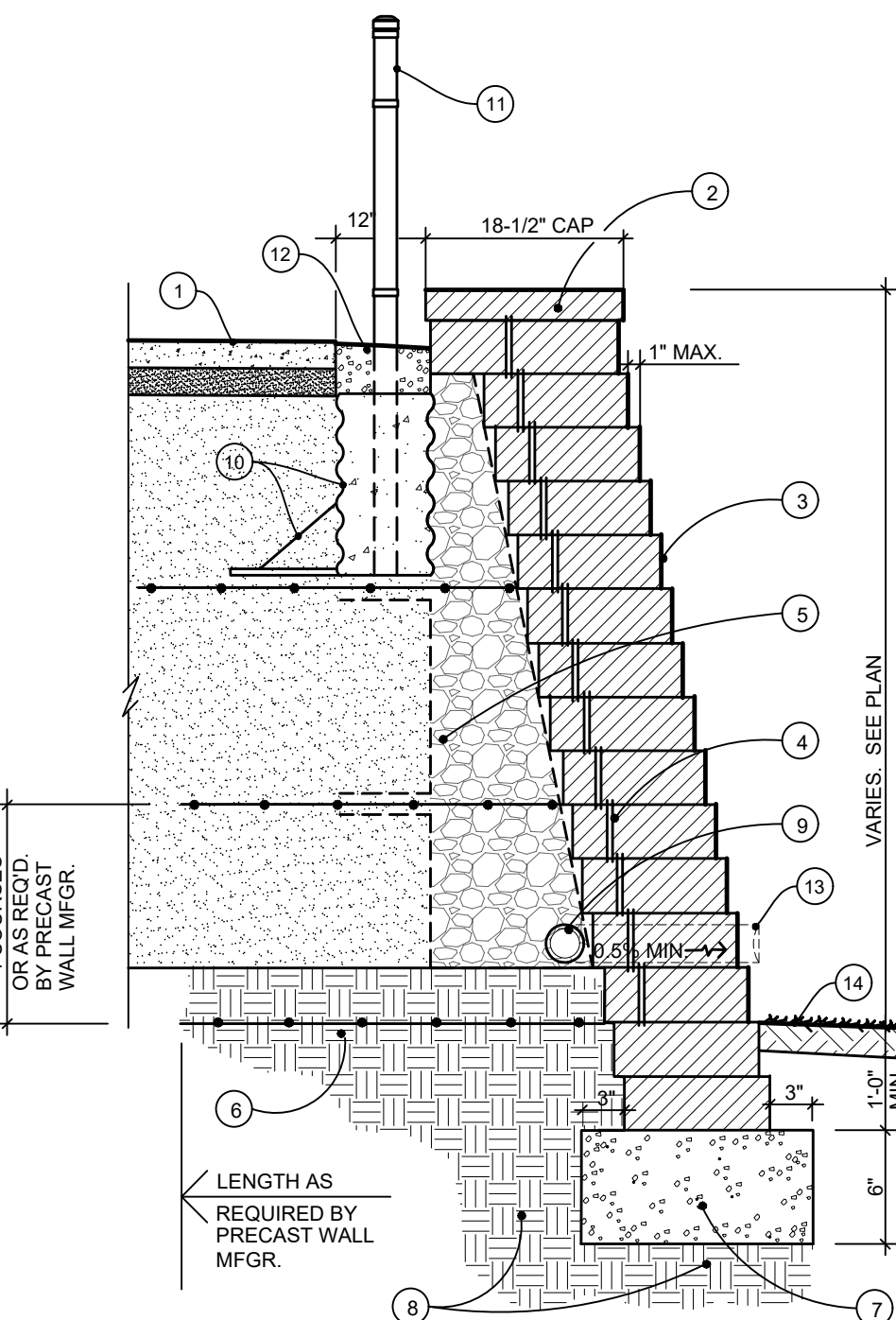
- 1. SECURE CEDAR RAILS WITH GALVANIZED SCREWS, SIZE AS REQUIRED.
- 2. SEE ALTERNATE NO. 3 - HAGGERTY FRONTAGE FENCING.

8 WOOD RAIL FENCE AND PIER INSTALLATION DETAIL (HAGGERTY VIEW - BASE BID)
L-3 SCALE: 3/4" = 1'-0"



- 1 FENCE POST, 42" ABOVE GRADE, LOCATE 6" ON CENTER.
- 2 METAL RAIL
- 3 FENCE PICKET
- 4 FENCE POST BRACKET
- 5 SET PLUMB AND VERTICAL IN SLEEVE-IT SYSTEM IN CONCRETE. TOP OF CONCRETE FOOTING SHALL HAVE CONTINUOUS 4" DEPTH 6A NATURAL AGGREGATE ENTIRE LENGTH OF FENCE.
- 6 SUBGRADE MATERIAL, SEE PRECAST RETAINING WALL DETAIL.

7 42" HT. FENCE @ RETAINING WALL
L-3 NOT TO SCALE

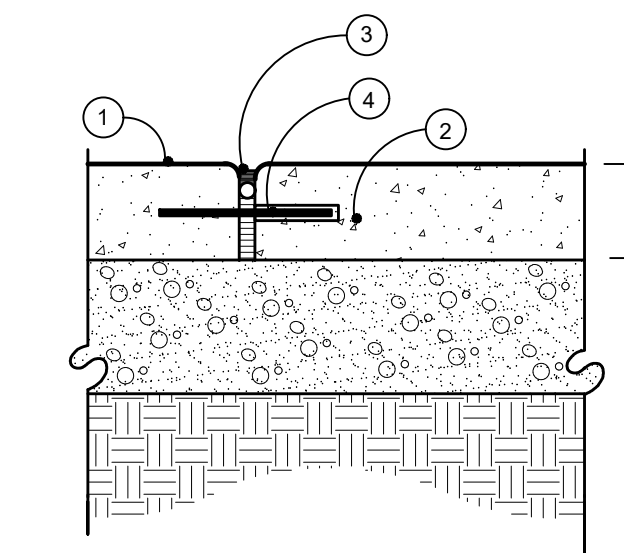


- 1 INTEGRAL CONCRETE WALK AND CURB, SEE TYP. DETAIL AND GRADING PLAN.
- 2 4" x 10 1/2" D x 18 1/2" W CAP.
- 3 8" H x 12" D x 18" W COMPACT III UNIT
- 4 FIBERGLASS PIN - INSTALL PER MANUFACTURER
- 5 6A NATURAL AGGREGATE, NO FINES, COMPACTED BACKFILL TO 95% COMPACTION MODIFIED PROCTOR DENSITY
- 6 STRUCTURAL GEOGRID, INSTALL PER MANUFACTURER REQUIREMENTS IN AGGREGATE COMPACTED TO 95% MODIFIED PROCTOR
- 7 6" COMPACTED 21AA GRANULAR BASE TO 95% MODIFIED PROCTOR DENSITY
- 8 COMPACTED SUBGRADE TO 95% COMPACTION STANDARD PROCTOR DENSITY
- 9 4" PERFORATED DRAINTILE, ENCAPSULATE AGGREGATE AND DRAIN IN NON-WOVEN GEOTEXTILE FABRIC.
- 10 FENCE FOUNDATION SYSTEM: 12" DIA. STRATA SLEEVE-IT #1224R, INSTALL PER MANUFACTURER REQUIREMENTS.
- 11 42" HT. FENCE, SEE TYP. DETAIL. SET PLUMB AND VERTICAL IN SLEEVE-IT SYSTEM IN CONCRETE. TOP OF CONCRETE FOOTING SHALL HAVE CONTINUOUS 4" DEPTH 6A NATURAL AGGREGATE ENTIRE LENGTH OF FENCE.
- 12 12" WIDE BED OF 4" DEPTH 6A NATURAL STONE. HOLD FINISHED GRADE OF STONE DOWN 1/4" BELOW FINISHED GRADE OF ADJACENT CONCRETE WALK.
- 13 DAYLIGHT OUTLET THROUGH WALL FACE, 0.5% SLOPE MIN. CUT WALL UNIT TO RECEIVE DRAINTILE OUTLET. CAULK IN PLACE, COLOR TO MATCH WALL BLOCK. INSTALL SLOTTED CAP AT END OF OUTLET. SEE LANDSCAPE PLAN FOR INVERT ELEVATIONS.
- 14 FINISHED GRADE.

NOTE:

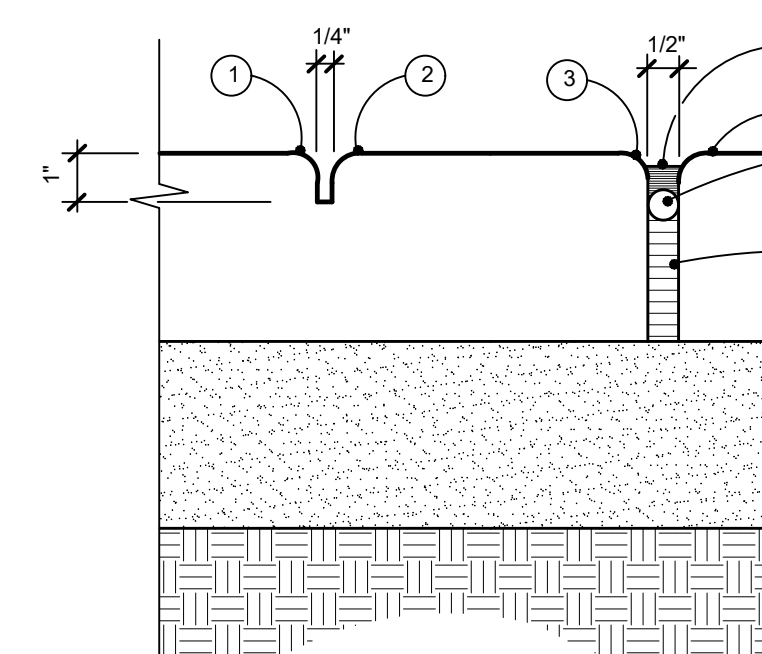
- 1. SUBMIT SAMPLES WITH SEALED AND STAMPED ENGINEERED SHOP DRAWINGS FOR APPROVAL. COLOR SHALL BE LIMESTONE.

6 PRECAST RETAINING WALL DETAIL
L-3 NOT TO SCALE



- 1 EXISTING CONCRETE WALK, SEE PLAN
- 2 4" THICK POURED CONCRETE WALK SEE TYP. DETAIL
- 3 BACKER ROD (SEE SPECS) AND EXPANSION JOINT FILLER
- 4 #4 EPOXY COATED DOWEL @ 24" O.C. CAP ONE END, DRILL EXISTING CONC. PAVING TO RECEIVE DOWEL.

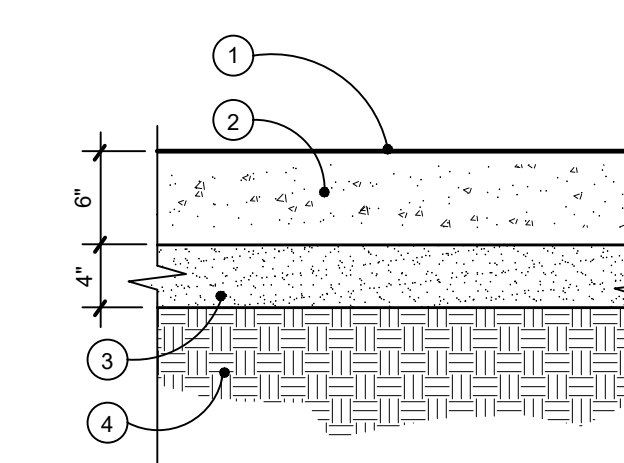
5 DOWELED JOINT @ EXISTING CONCRETE
L-3 SCALE: 1" = 1'-0"



NOTE:

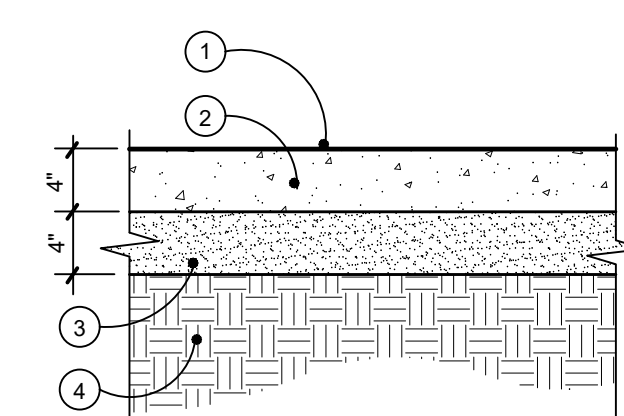
- 1 CONTROL JT. 1/4" x 1/3 DEPTH OF PVMT., TOOLED RADIUS, SPACE AT +/- 5'-0" O.C. AND AT POINTS OF TANGENCY OF WALK
- 2 1/2" RADIUS (SMOOTH)
- 3 1/2" EXPANSION JT. SPACE AT 25' - 30' O.C.
- 4 POLY SEALANT COLOR TO MATCH CONC.
- 5 BACKER ROD SEE SPECS
- 6 EXPANSION JOINT FILLER
- 7 TYPICAL CONCRETE PAVEMENT
- 8 4" SAND BASE COMPACTED TO 95%

4 CONTROL AND EXPANSION JOINTS
L-3 NOT TO SCALE



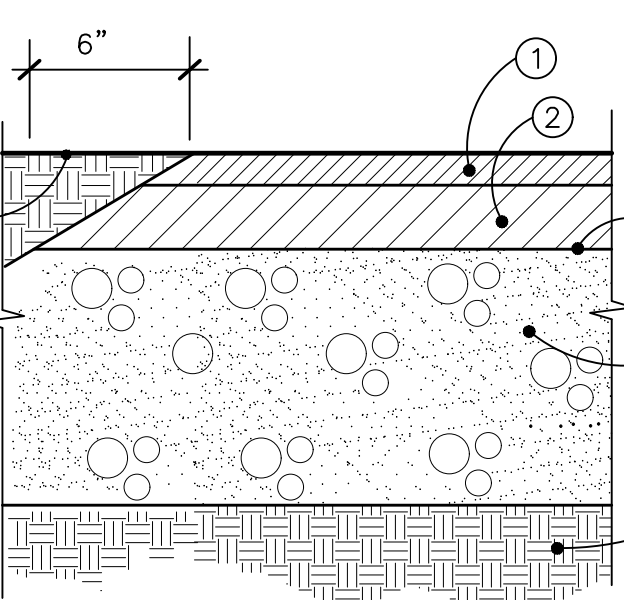
- 1 MEDIUM BROOM FINISH
- 2 6" THICK POURED CONCRETE WALK THICKEN EDGE, SEE DETAIL 8, SHEET L-7
- 3 4" MIN. SAND FILL BASE COMPACTED TO 98% MOD PROCTOR
- 4 COMPACTED SUBGRADE

3 TYPICAL 6" DEPTH CONCRETE @ RAMP
L-3 SCALE: 1" = 1'-0"



- 1 MEDIUM BROOM FINISH
- 2 4" THICK POURED CONCRETE WALK THICKEN EDGE OF WALK TO 8"
- 3 4" MIN. SAND FILL BASE COMPACTED TO 98% MOD PROCTOR
- 4 COMPACTED SUBGRADE

2 TYPICAL 4" CONCRETE WALK
L-3 SCALE: 1" = 1'-0"



- 1 1-1/2" MDOT 5E1 WEARING COURSE
- 2 2" MDOT 4E1 ASPHALT LEVELING COURSE
- 3 BOND COAT AS REQUIRED
- 4 6" 21AA CRUSHED LIMESTONE BASE, COMPACT TO 95% MOD. PROCTOR. EXTEND BASE 6" BEYOND EDGE OF PAVEMENT.
- 5 COMPACTED SUBGRADE TO 95% MOD. PROCTOR
- 6 FINISHED GRADE, SEE PLAN.

NOTE:

- 1. REFER TO SOILS REPORT FOR SITE PREPARATION REQUIREMENTS.
- 2. SEE ALTERNATE NO. 2 - ASPHALT.

1 TYPICAL ASPHALT PAVEMENT & EDGE
L-3 SCALE: 2" = 1'-0"



Project:
French Landing - Phase II
12090 Haggerty Road
Van Buren Charter Township

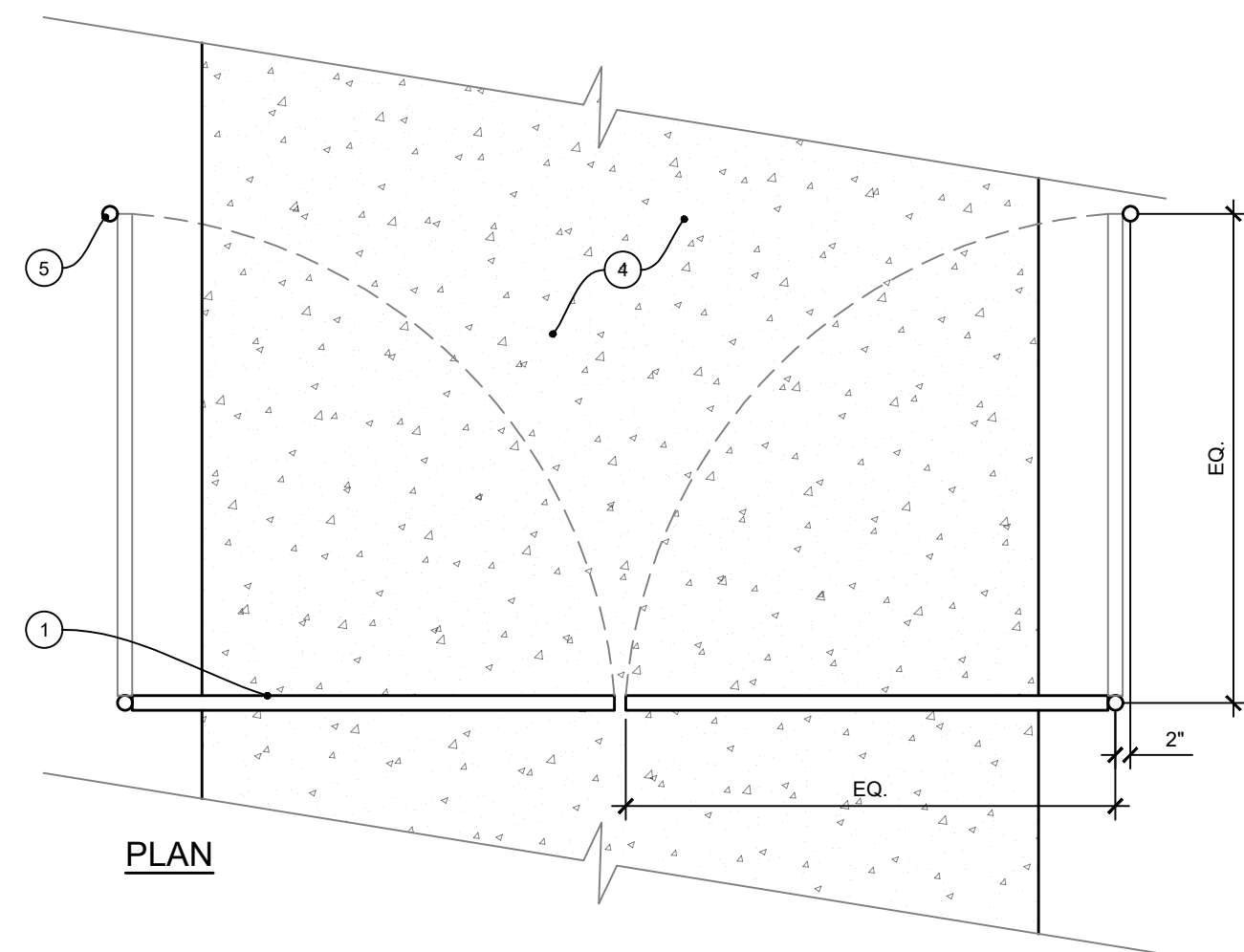
Client:
Van Buren Township
46425 Tyler Road
Van Buren Twp., MI 48111

Job Number: V05-221
Drawn: JBG
Checked: MRR
Date: 3.8.22
Scale: 1" = 20' - 0"

Issued:
03.08.22 REVIEW
04.04.22 OWNER REVIEW
06.21.22 ISSUED FOR BIDS

Sheet:
Landscape Details

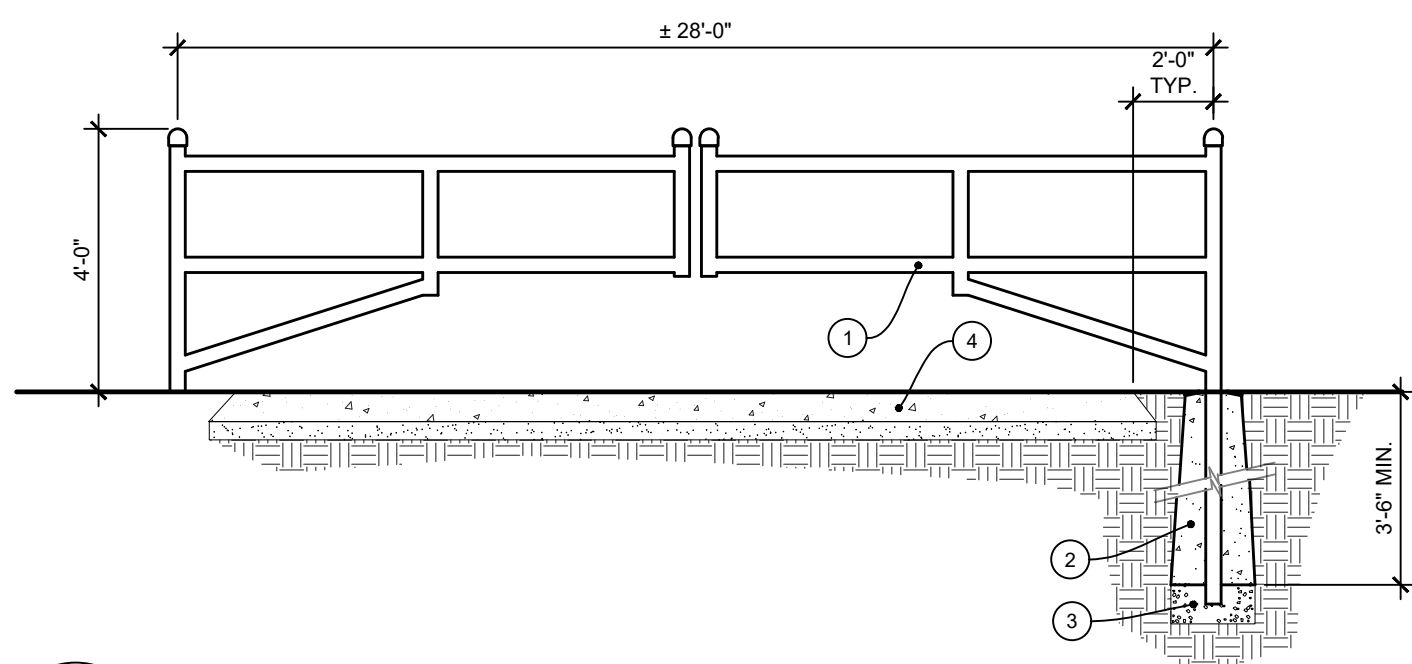
Sheet Number:
L-6
© 2022 Russell Design, Inc.



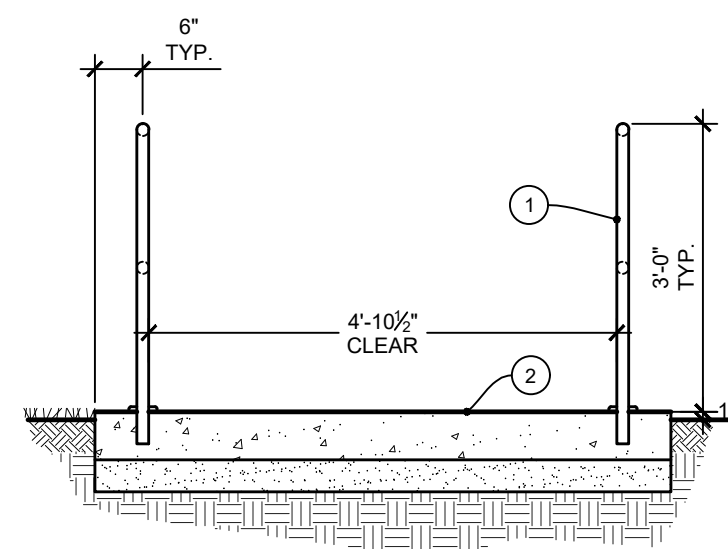
- 1 4' HT. x 28' TOTAL WIDTH, H-SERIES TUBULAR BARRIER DOUBLE GATE - GALVANIZED STEEL BY HOOVER FENCE, OR APPROVED SUBSTITUTE.
- 2 8"x42" DEPTH CONC. FOOTING. FLARE OUT BOTTOM OF FOOTING TO 12" WIDTH, HOLD FTG. DOWN AS REQUIRED FROM LANDSCAPE TREATMENT. PITCH TOP OF FOOTING TO DRAIN.
- 3 6" DEPTH 6A NATURAL AGGREGATE AT BOTTOM OF EACH FENCE POST FOR DRAINAGE.
- 4 ASPHALT DRIVE, SEE TYP. DETAILS.
- 5 ANCHORING POST, SEE NOTE BELOW.

NOTES:

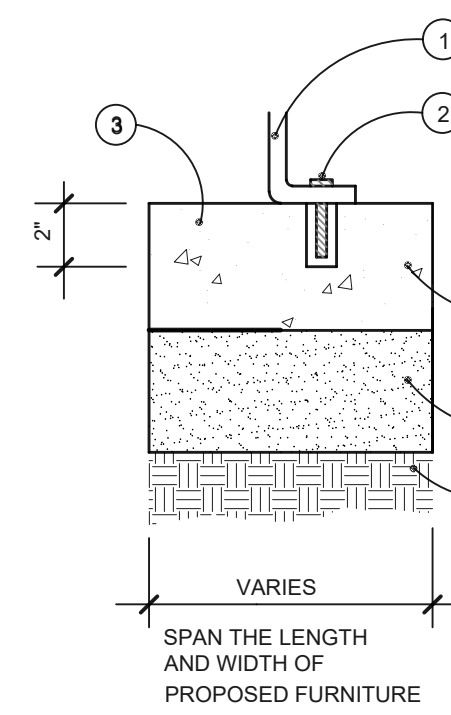
1. ITEM NO. BARRIER-GATE-H-GALV-DBL
2. INSTALL PER MANUF. RECOMMENDATIONS.
3. PROVIDE 2" OD GALV. ANCHORING POST WITH GALV. DOMED POST CAP AT REQUIRED HEIGHT TO RECEIVE EACH GATE LEAF IN THE OPEN POSITION. INSTALL FULCRUM LATCH AT EACH ANCHORING POST.
4. GATE AVAILABLE FROM HOOVER FENCE COMPANY, OR APPROVED SUBSTITUTE. 4521 WARREN RAVENNA RD NEWTON FALLS, OH 44444 1-800-355-2335



9 SWING BARRIER GATE
L-3 NTS

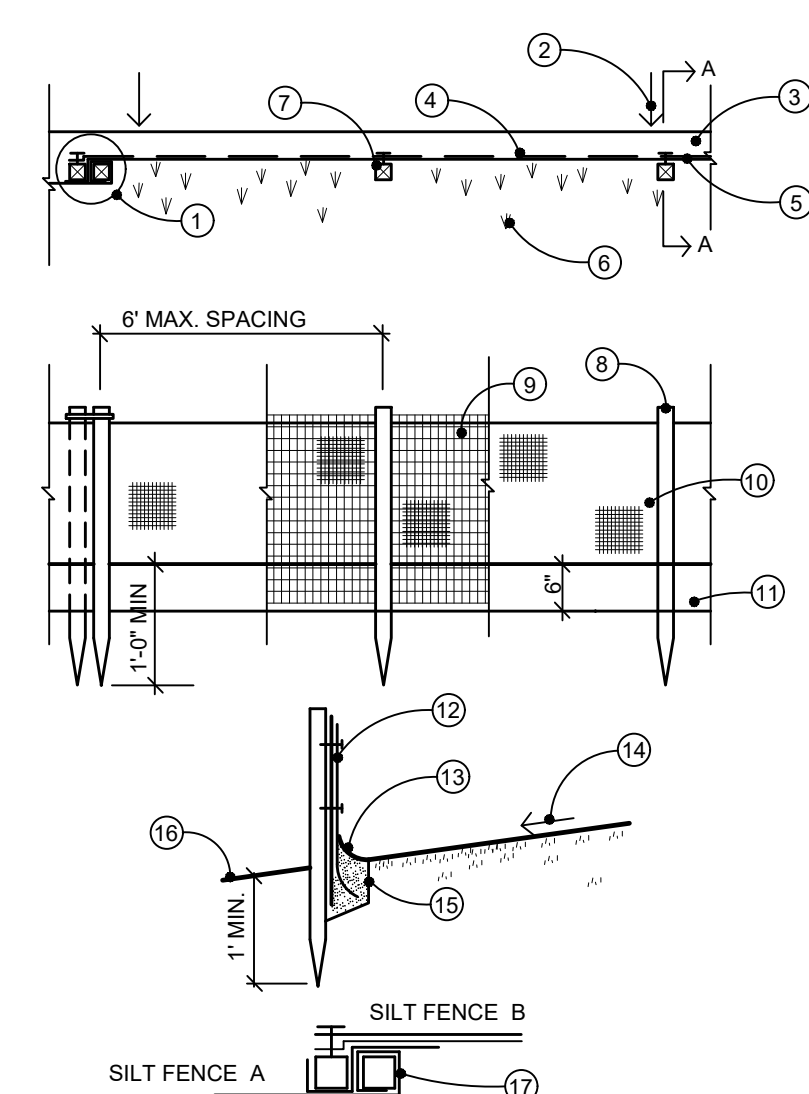


SECTION
NTS



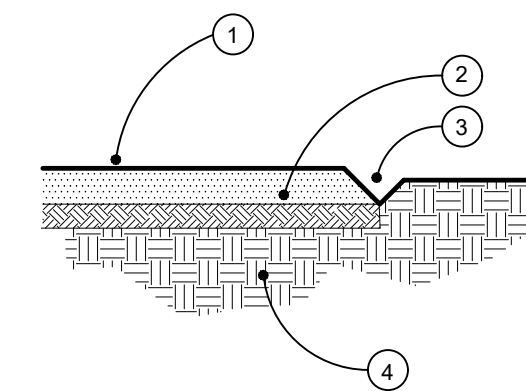
- 1 SITE FURNITURE. SEE PLAN FOR LOCATION
- 2 BOLT AND EXPANSION SLEEVE (SIZE PER MANUFACTURER RECOMMENDATIONS.) 2" MIN. DEPTH INTO CONC. SLAB BELOW. DRILL AND EPOXY GROUT IN PLACE
- 3 CONCRETE PAVING. PRE-DRILL HOLE IN CONC. TO ACCEPT MOUNTING BOLTS.
- 4 CONC. SLAB/FOOTING. SEE PLAN FOR SIZE AND LOCATION
- 5 4" MIN. SAND BASE COMPACTED TO 95% MOD. PROCTOR

7 TYPICAL FURNITURE INSTALLATION
L-3 NTS



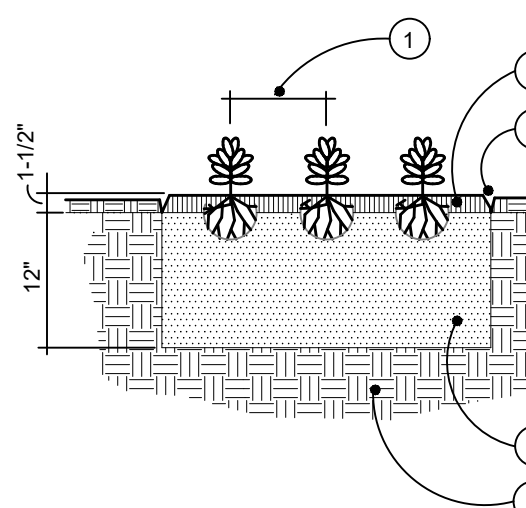
- 1 SILT FENCE JOINT SECTION B-B
- 2 SHEET FLOW
- 3 COMPACTED EARTH
- 4 GEOTEXTILE FILTER FABRIC
- 5 SUPPORT FENCE
- 6 UNDISTURBED VEGETATION
- 7 FENCE POSTS
- 8 FENCE POST DRIVEN INTO GROUND 1'-0" MIN.
- 9 SUPPORT FENCE
- 10 GEOTEXTILE FILTER FABRIC
- 11 6" x 6" ANCHOR TRENCH
- 12 GEOTEXTILE FILTER FABRIC FASTENED ON UPHILL SIDE, TOWARDS EARTH DISRUPTION
- 13 RIDGE OF COMPACTED EARTH ON UPHILL SIDE OF FILTER FABRIC
- 14 SHEET FLOW
- 15 6" x 6" ANCHOR TRENCH
- 16 UNDISTURBED VEGETATION
- 17 FABRIC TO BE WRAPPED AROUND FENCE POST

6 SILT FENCE DETAIL
L-2 NOT TO SCALE



- 1 FINISH GRADE
- 2 PLANTING BED, SEE LANDSCAPE PLAN AND PLANTING DETAILS.
- 3 SHOVEL CUT EDGE
- 4 UNDISTURBED SUBGRADE

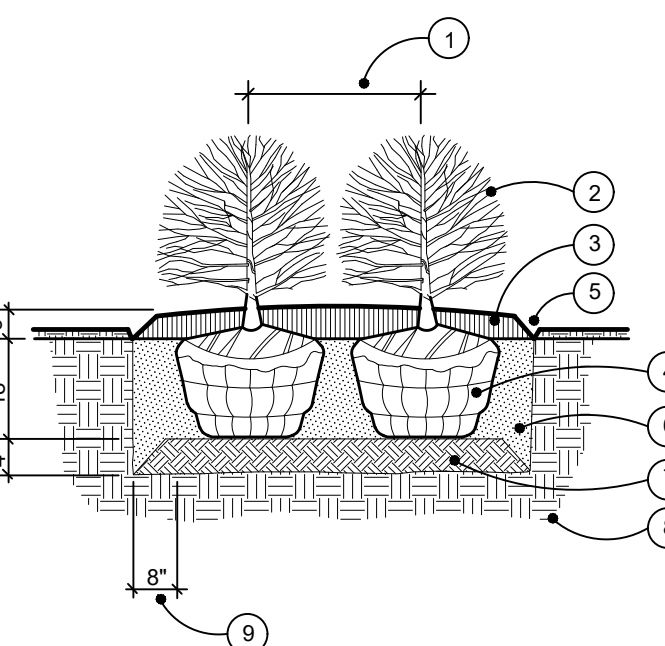
4 SHOVEL CUT EDGE
L-3 NOT TO SCALE



NOTES:

1. CONTRACTOR TO VERIFY PERCOLATION OF PLANTING PIT PRIOR TO INSTALLATION
- 1 SEE PLANT LIST FOR SPACING
- 2 1-1/2" DEPTH, CANADIAN PEAT TOP DRESSING OR 1-1/2" DOUBLE PROCESSED SHREDDED BARK MULCH
- 3 SHOVEL CUT EDGE OR METAL EDGE. SEE PLAN
- 4 EXCAVATE EXISTING SOIL 12" DEEP. FILL WITH PLANT MIX (SEE SPECS.)
- 5 UNDISTURBED SUBGRADE

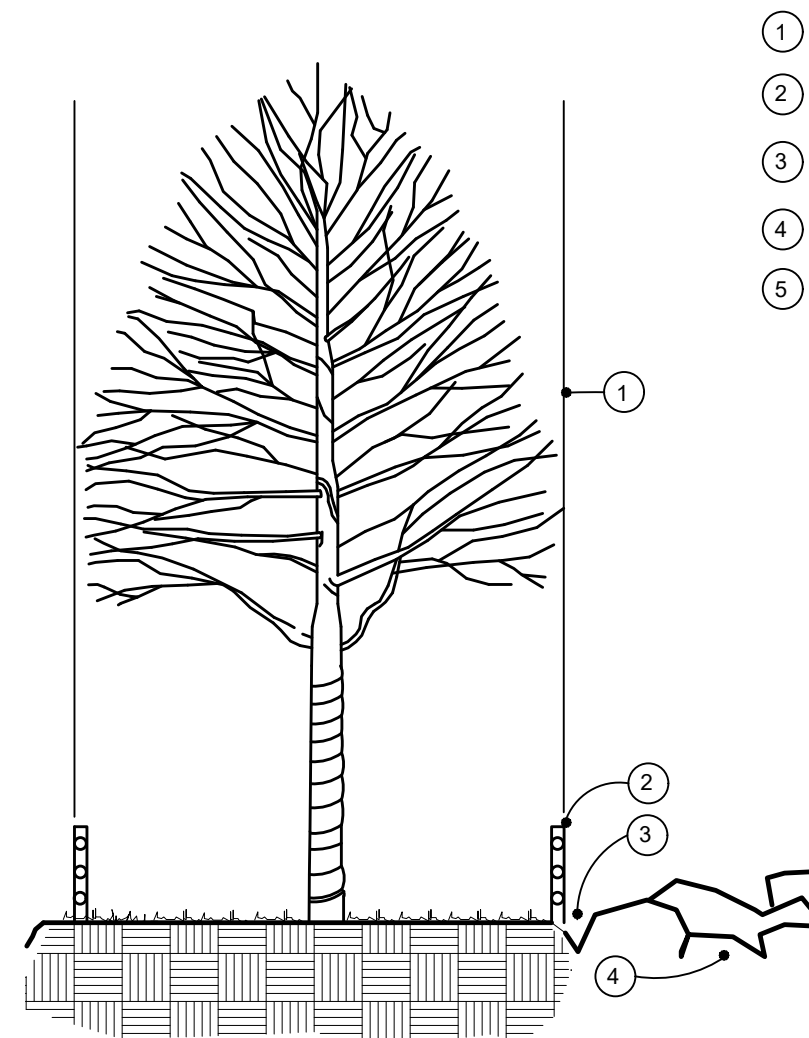
PERENNIAL/GROUNDCOVER PLANTING DETAIL
3 L-5 NOT TO SCALE



NOTES:

1. CONTRACTOR TO VERIFY PERCOLATION OF PLANTING PIT PRIOR TO INSTALLATION
- 1 SEE PLAN FOR SPACING
- 2 SHRUB PLANTS
- 3 SHREDDED BARK MULCH 3" DEPTH TYPICAL
- 4 REMOVE BURLAP & CUT TWINE FROM TOP 1/3 OF BALL
- 5 SHOVEL CUT EDGE OR METAL EDGING. SEE PLAN
- 6 EXCAVATE EXISTING SOIL 18" DEEP. FILL WITH PLANT MIX (SEE SPECS.)
- 7 4" SCARIFY AND RECOMPACT
- 8 UNDISTURBED SUBGRADE
- 9 8" MIN. BETWEEN ROOTBALL AND EDGE OF PLANT PIT

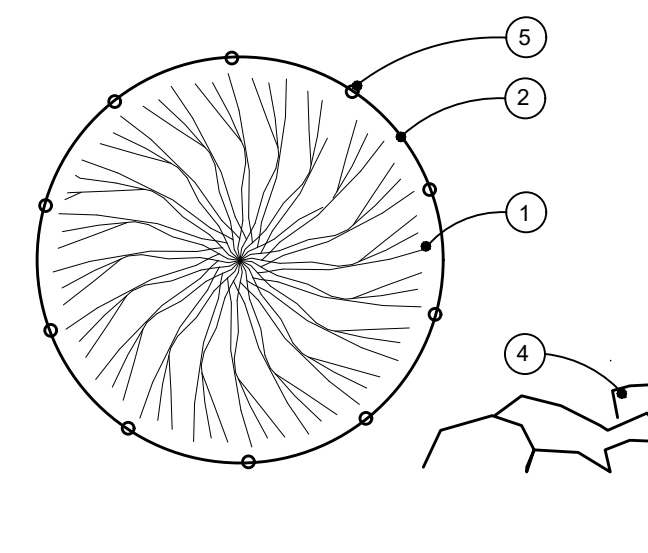
2 SHRUB PLANTING DETAIL
L-5 NOT TO SCALE



- 1 TREE DRIPLINE
- 2 4' HIGH SNOWFENCE
- 3 TRENCH OR CURB
- 4 CONSTRUCTION AREA
- 5 STEEL POSTS EVERY 10' 5/8" X 6'-0" ROD OR EQUAL. INSTALL POSTS 2' IN GROUND

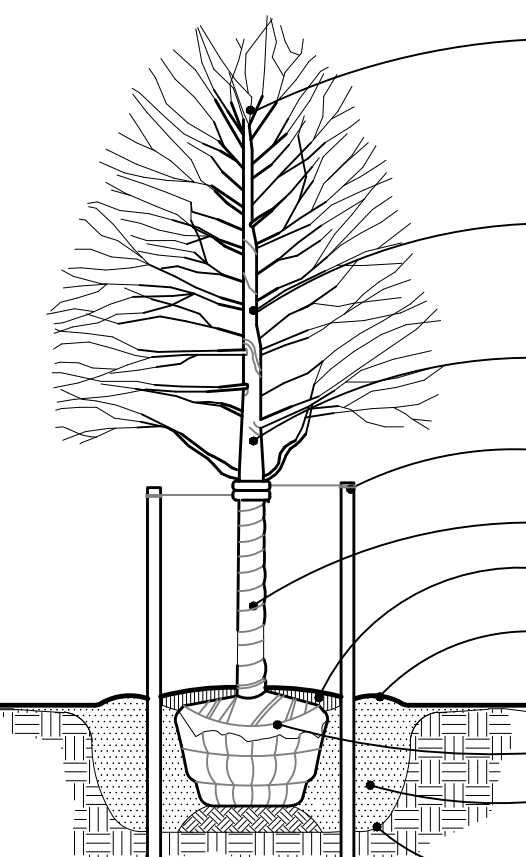
NOTES:

1. 4' HIGH SNOWFENCE TO BE INSTALLED AROUND DRIP LINE OF TREES TO BE SAVED. PRIOR TO ANY LAND CLEARING OR CONSTRUCTION (PLASTIC, SAFETY FENCE)
2. NO CUTTING, FILLING OR TRESPASSING SHALL OCCUR INSIDE FENCED AREA WITHOUT APPROVAL FROM LANDSCAPE ARCHITECT



PLAN

5 TREE PROTECTION DETAIL
L-2 NOT TO SCALE



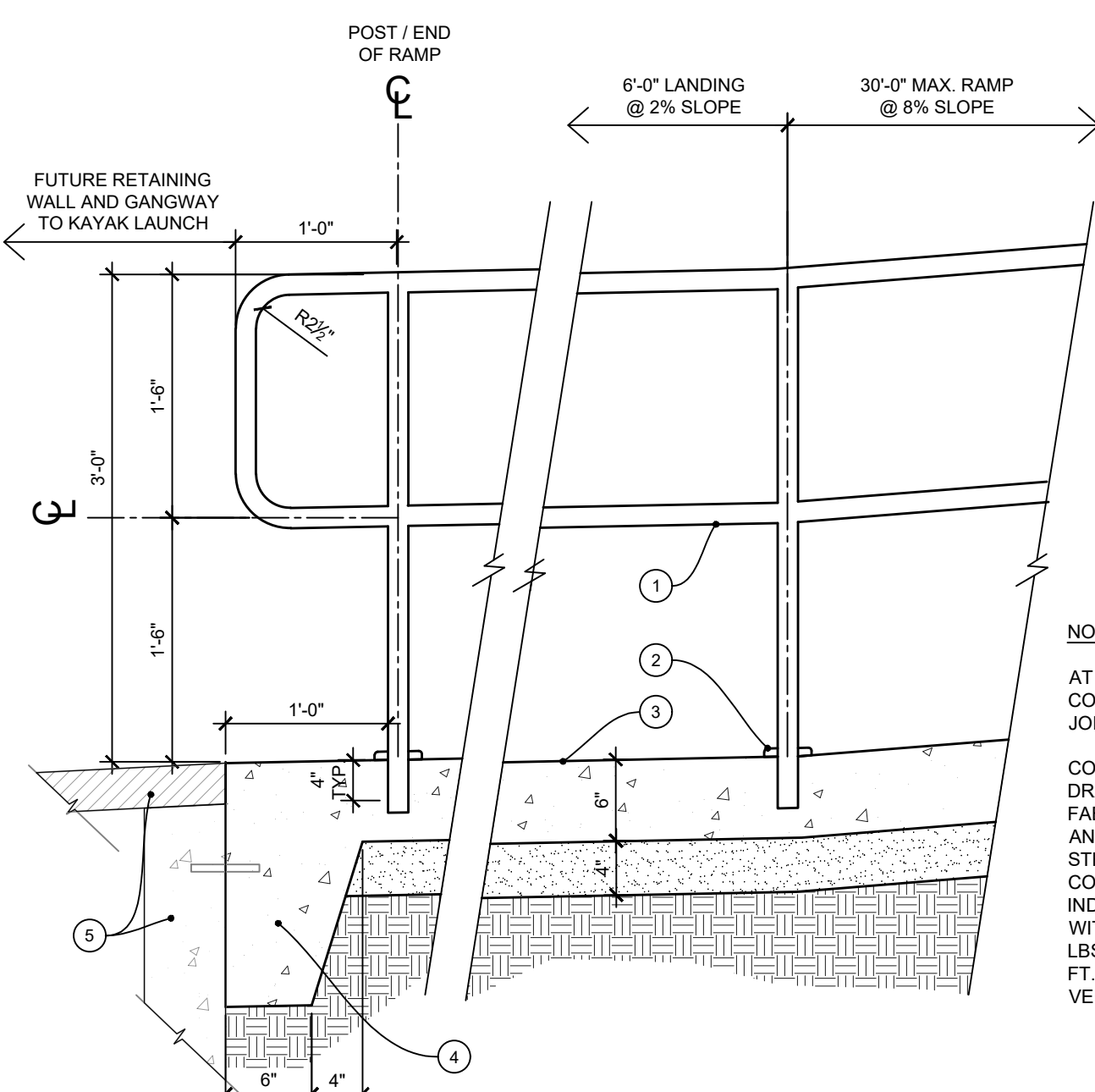
- 1 REMOVE SECONDARY LEADERS. DO NOT PRUNE TERMINAL LEADER OR BRANCH TOPS. PRUNE ALL DEAD AND BROKEN BRANCHES.
- 2 REMOVE ALL TAGS, STRINGS, PLASTICS, AND ANY OTHER MATERIALS WHICH ARE UNSIGHTLY OR COULD CAUSE GIRDLING.
- 3 STAKE TREES JUST BELOW FIRST BRANCH W/ 2-3" WIDE BELT-LIKE FABRIC STRAPS ONLY. ARBOR THE OR APPROVED EQUAL. (CONNECT FROM TREE TO STAKE OPPOSITE FROM EACH OTHER, AND ALLOW FOR SOME "FLEXING") DO NOT USE WIRE OR ROPE THROUGH A HOSE. REMOVE AFTER ONE YEAR.
- 4 (2) 2"x2" HARDWOOD STAKES OR EQUIVALENT DRIVEN 6-8" OUTSIDE OF ROOTBALL. REMOVE AFTER ONE YEAR.
- 5 TREE WRAP SECURED W/ BIODEGRADABLE MATERIAL. AT TOP AND BOTTOM. REMOVE AFTER FIRST WINTER.
- 6 COVER PLANTING W/ 3" SHREDDED HARDWOOD BARK MULCH. LEAVE 3" CIRCLE OF BARE SOIL AROUND THE TREE.
- 7 REMOVE ALL NON-BIODEGRADABLE MATERIALS FROM THE ROOTBALL. FOLD DOWN ALL BURLAP AND REMOVE WIRE BASKET FROM THE TOP 1/3 OF THE ROOTBALL.
- 8 PLANT MIX
- 9 TREE PIT TO BE 3 TIMES WIDTH OF ROOTBALL
- 10 4" TOPSOIL SAUCER

NOTES:

1. STAKE TREES UNDER 4" CALIPER
2. GUY TREES 4" CALIPER & OVER
3. CONTRACTOR TO VERIFY PERCOLATION OF PLANTING PIT PRIOR TO INSTALLATION
4. SET TOP OF BALL 3" ABOVE FINISH GRADE
5. SET STAKES VERTICAL & EVENLY SPACED
6. STAYS OR GUYS TO BE SET ABOVE 1ST BRANCH

NOTE:
TREE SHALL BEAR SAME RELATION TO FINISH GRADE AS IT BORE ORIGINALLY OR SLIGHTLY HIGHER THAN FINISH GRADE UP TO 6" ABOVE GRADE, IF DIRECTED BY LANDSCAPE ARCHITECT FOR HEAVY CLAY SOIL AREAS.

1 DECIDUOUS TREE PLANTING DETAIL
L-5 NOT TO SCALE



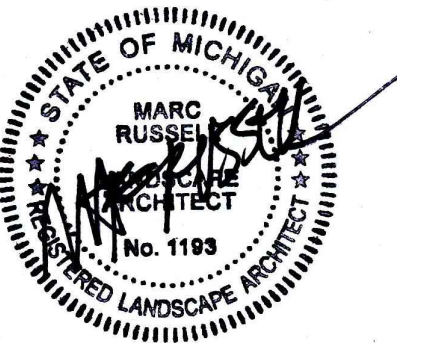
- 1 1-1/2" DIA. ALUMINUM HANDRAIL. SEE SPECS. HANDRAIL TO BE PARALLEL TO RAMP. WALK AND LANDING. CORE DRILL CONCRETE TO RECEIVE POST SET WITH EPOXY GROUT. COLOR TO MATCH CONCRETE. END RAIL SHALL BE INSTALLED @ TOP AND BOTTOM OF EACH RAIL END. SEE PLAN FOR LOCATIONS.
- 2 COVER FLANGE. SECURE TO POST PER FABRICATOR.
- 3 6" CONCRETE. SEE TYP. DETAIL.
- 4 THICKENED CONCRETE EDGE.
- 5 FUTURE RETAINING WALL SEA WALL AND GANGWAY TO KAYAK LAUNCH.

NOTE:

AT TOP OF RAMP. THE 6" CONCRETE TO 4" CONCRETE WALK WITH DOWELED EXPANSION JOINT. SEE TYP. DETAIL.

CONTRACTOR SHALL SUBMIT COMPLETE SHOP DRAWINGS AND 6" LONG SAMPLE OF FABRICATION AND INSTALLATION FOR REVIEW AND APPROVAL. INCLUDE IN SUBMITTAL STRUCTURAL COMPUTATIONS EVIDENCING COMPLIANCE OF HANDRAILS W/ DESIGN LOADS INDICATED. HANDRAILS SHALL BE CAPABLE OF WITHSTANDING CONCENTRATED LOAD OF 200 LBS. AND UNIFORM LOAD OF 50 LBS. PER LINEAR FT. APPLIED AT ANY POINT NON CONCURRENTLY VERTICALLY DOWNWARD OR HORIZONTALLY.

8 RAMP HANDRAIL ELEVATION
L-3 SCALE 1"=1'-0"



RUSSELL DESIGN
LANDSCAPE ARCHITECTURE
DESIGN ■■■ PLANNING
114 Rayson Street Suite 2A Northville, MI 48167 P. 248.374.3222

Project:
French Landing - Phase II
12090 Haggerty Road
Van Buren Charter Township

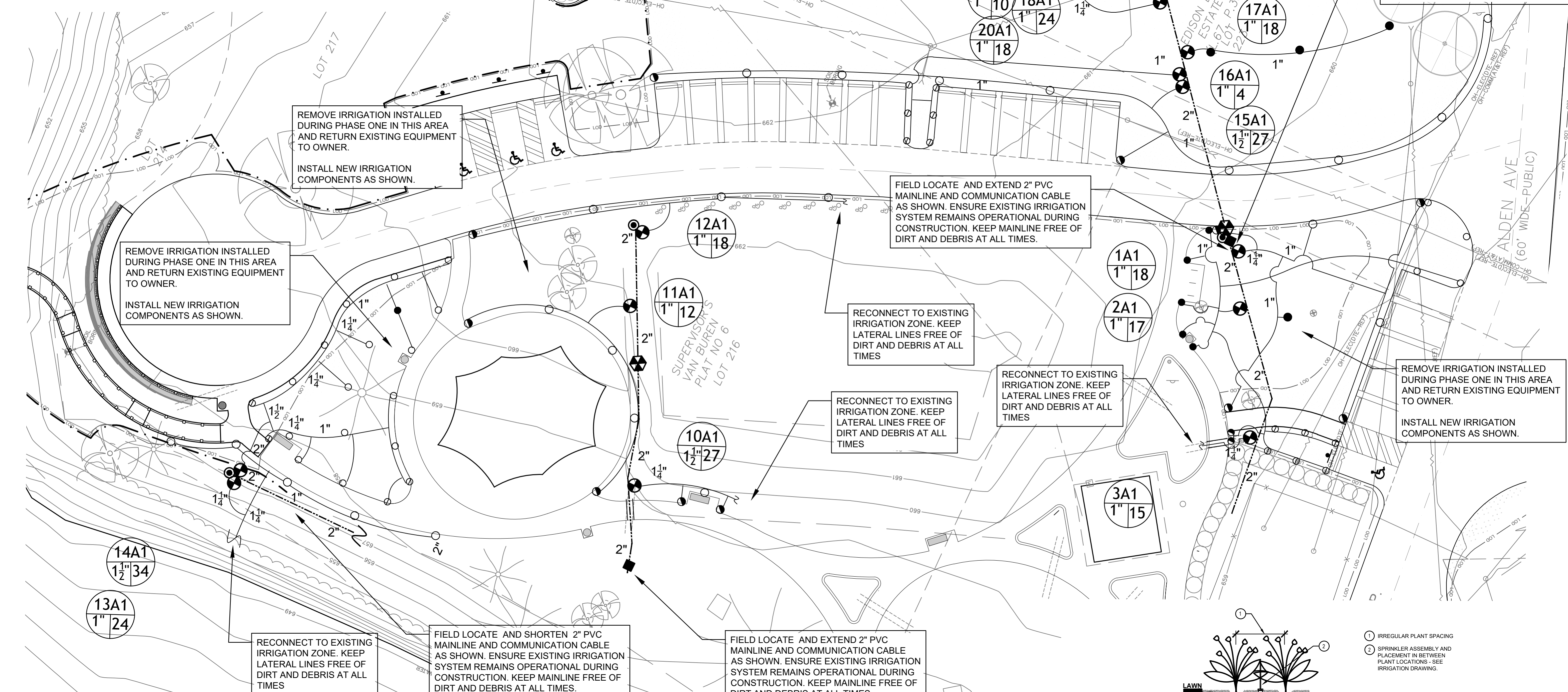
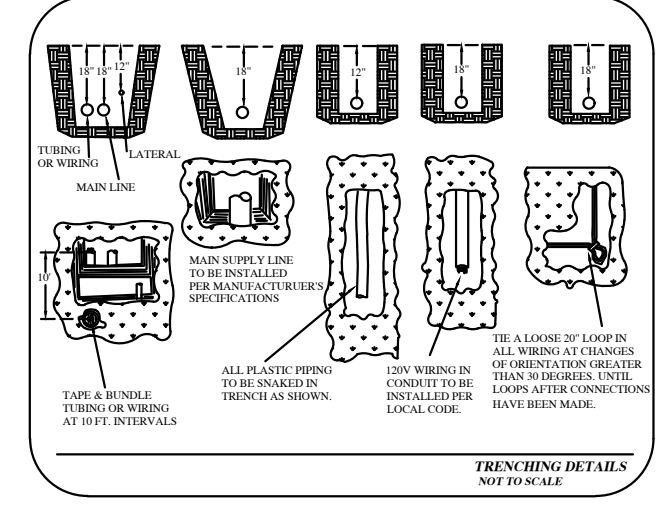
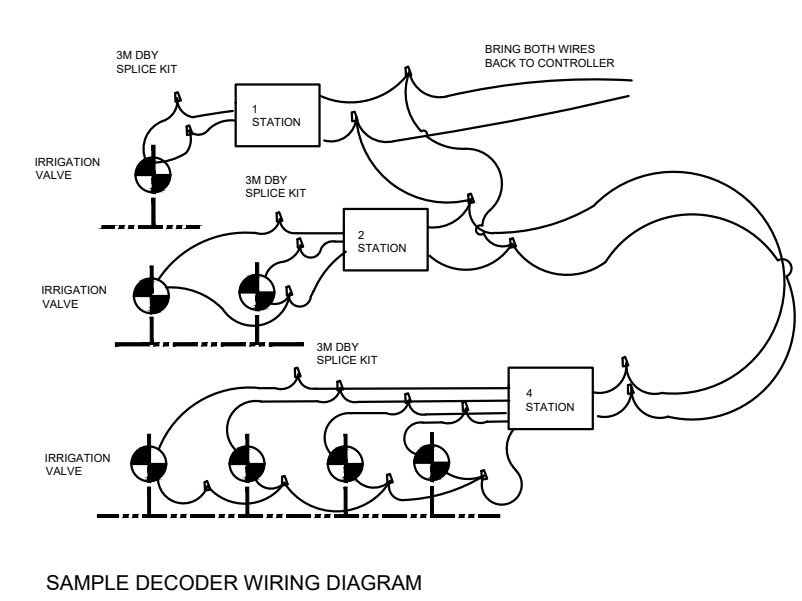
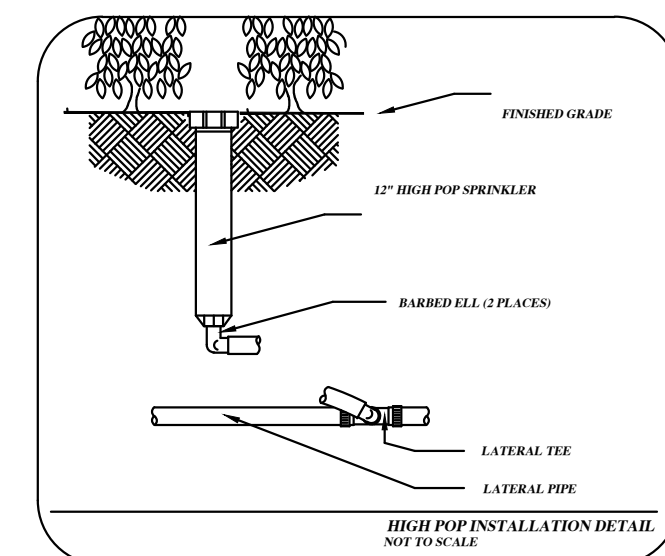
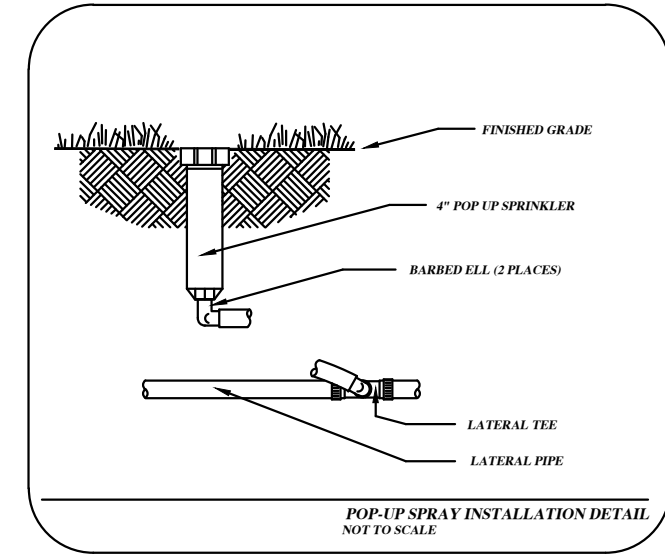
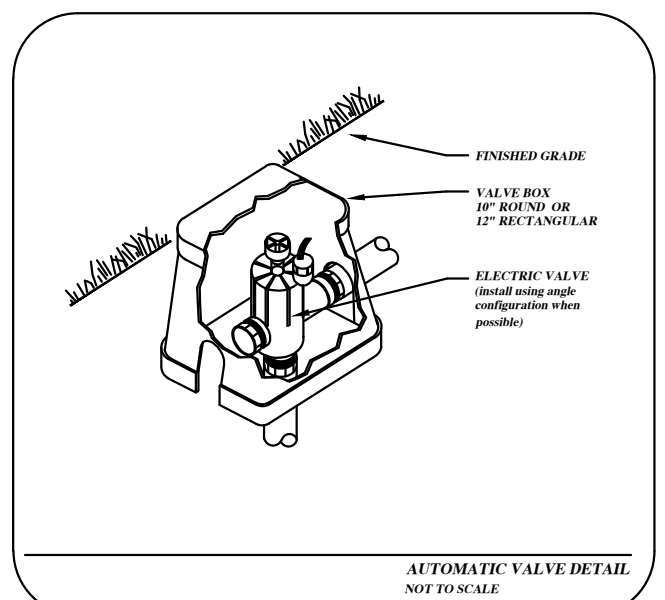
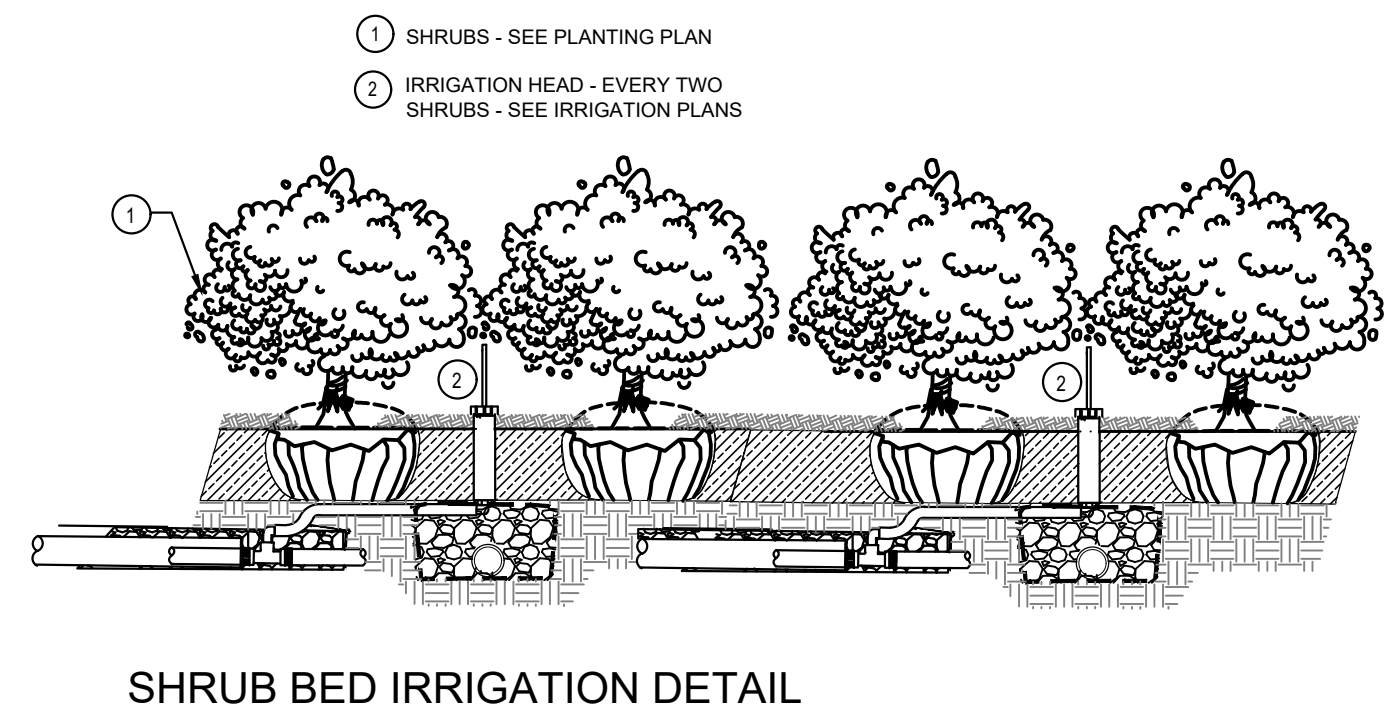
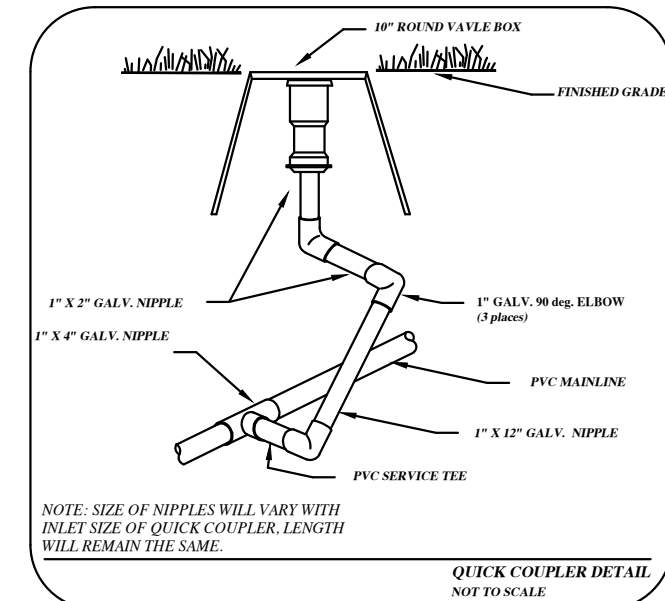
Client:
Van Buren Township
46425 Tyler Road
Van Buren Twp, MI 48111

Job Number: V05-221
Drawn: JBG
Checked: MRR
Date: 3.8.22
Scale: 1" = 20' - 0"

Issued:
03.08.22 REVIEW
04.04.22 OWNER REVIEW
06.21.22 ISSUED FOR BIDS

Sheet:
Landscape Details

Sheet Number:
L-7
© 2022 Russell Design, Inc.



- NOTES:**
- Refer to the specifications for installation details and descriptions, as well as, construction methods which will be accepted.
 - All work shall be in compliance with all local, state, and federal codes and ordinances.
 - All electrical connections shall be made using 3m DBY-6 splice kits.
 - All control wiring downstream of the controller shall be HUNTER IDWIRE UL approved for direct bury.
 - All polyethylene lateral pipe clamps shall be stainless steel worm gear type clamps. Lateral pipes 1-1/2" or larger shall be double clamped.
 - Pipe routing is schematic. All heads are to be field adjusted to within 2' to take into consideration any obstruction. Final head placements are subject to the landscape architects approval.
 - All sprinkler heads shall be mounted on 2 elbow poly swing joints as specified.
 - Contractor to verify final controller location with owner's authorized representative prior to installation.
 - All pipe not sized downstream of control valve is 1".
 - All sleeves shall be PVC SDR 21 (see specifications).
 - Irrigation contractor's point of connection to water source shall be as noted on this sheet.
 - Locate and connect to indicated water source. All pipe installed above grade shall be copper type "M".
 - 120v power to the controller locations should be provided others. Coordinate with owner's representative. Hardwire controller directly to nearest circuit panel. Place all wires in conduit per code.
 - Design pressure does not take into account seasonal supply fluctuations. Periods of drought may cause temporary pressure losses to the city water supply resulting in inadequate irrigation system performance. Irrigation design is based on normal weather conditions and typical municipal water supply abilities.
 - Irrigation contractor shall be responsible for determining and maintaining the irrigation schedule during the project construction and throughout the length of the warranty period.
 - The irrigation schedule shall deliver 1" of precipitation per week +/- natural rainfall quantities for turf grass.
 - Landscape material shall receive adjusted amounts of precipitation to maintain proper plant health.
 - Landscape and turf grass shall be irrigated separately.
 - Rotors and spray zones may not be combined to operate at the same time.
 - When specified, follow manufacturer's product recommendations concerning proper installation of water flow sensors. Allow proper straight pipe distances before and after flow sensors.

IRRIGATION LEGEND:

Hunter	FIXED SPRAY POP-UP (12") 10 Series 12 Series 15 Series Strip Series FIXED SPRAY POP-UP (12") w/ 2" radius nozzle 2" Radius Nozzle 4" Radius Nozzle FIXED SPRAY POP-UP (4") w/ MPR nozzle 10 Series 12 Series 15 Series Strip Series GEAR DRIVEN ROTARY POP-UP MEDIUM RANGE 1.5 GPM 3.0 GPM 6.0 GPM GEAR DRIVEN ROTARY POP-UP SHORT RANGE 1.0 GPM 2.0 GPM 4.0 GPM	PROS-12-PRS40 PROS-12-PRS40 PROS-04-PRS40 Hunter PGP Hunter PGJ ICV-FS Series HQ44-LRC Existing
ISOLATION GATE VALVE (LINE SIZE)	ELECTRIC VALVE W FILTER SENTRY w/ EZDS decoder QUICK COUPLER VALVE ELECTRIC CONTROLLER	Existing- Field Locate
POINT OF CONNECTION TO EXISTING IRRIGATION SYSTEM	PVC MAINLINE, SDR 26, BE, POLYETHYLENE PIPE, 100#, NSF APPROVED, Size as shown PVC SLEEVES - SDR 26 - Size as shown	

PUMP REQUIREMENTS: 40 GPM @ 60 PSI
(CONTRACTOR TO VERIFY PSI AVAILABLE ON SITE PRIOR TO SYSTEM INSTALLATION)

Controller and Station Number
Gallons Per Minute
Valve Size

PIPE SIZE CHART

0-12 GPM	= 1" DIAMETER POLYETHYLENE PIPE
12-24 GPM	= 1 1/2" DIAMETER POLYETHYLENE PIPE
24-30 GPM	= 1 1/2" DIAMETER POLYETHYLENE PIPE
30-60 GPM	= 2" DIAMETER POLYETHYLENE PIPE

LIQUID ASSETS
IRRIGATION DESIGN & WATER MANAGEMENT

4843 Kittery NW
Comstock Park, Michigan 49321
Tel. (248) 789-0330
email: abarnes@liquidassets.org
www.liquidassets.org

3 FULL WORKING DAYS BEFORE YOU DIG CALL

811
Know what's below. Call before you dig.

GRAPHIC SCALE
1" = 20'



Project:
French Landing - Phase II
Van Buren Charter Township

Client:
Van Buren Township
46425 Tyler Road
Van Buren Twp, MI 48111

Job Number: V05-221
Drawn: AJB
Checked: MRR
Date: 3.8.22
Scale: 1" = 20' - 0"

Issued:
03.08.22 REVIEW
04.04.22 OWNER REVIEW
06.21.22 ISSUED FOR BIDS

Sheet:
Irrigation Plan & Details

Sheet Number:
IR-1
© 2022 Russell Design, Inc.