

- General Notes:**
- ALL SITE LAYOUT SHALL BE STAKED OR PAINTED IN THE FIELD AND REVIEWED BY OWNER'S REPRESENTATIVE FOR APPROVAL PRIOR TO PROCEEDING.
  - ANY DISCREPANCIES IN SITE LAYOUT SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE PRIOR TO PROCEEDING.
  - ELECTRONIC FILES ARE AVAILABLE UPON REQUEST.
  - SPECIFIED BENCHES, BIKE RACKS, AND TRASH RECEPTACLES ARE CITY STANDARDS AND FOLLOW THE SECONDARY STREETS DESIGN STANDARDS. SUBSTITUTIONS REQUIRE CITY APPROVAL.
  - REFER TO DETAIL SHEET FOR DOG WASTE STATION INSTALLATION.
  - REFER TO CIVIL PLANS FOR WATER AND SANITARY SERVICE FOR DRINKING FOUNTAIN. COORDINATE WITH PLUMBER.

- Legend:** (APPLIES TO L100-L101 NOT ALL GRAPHICS APPLY TO EACH SHEET)
- PROPERTY LINE, TYP.
  - LOW
  - RIVER PARK LIMIT OF WORK
  - RIVER CHANNEL LANDSCAPE ZONE - REFER TO BARR ENGINEERING PLANS
  - EXISTING UTILITY LINES, TYP.
  - PROPOSED UTILITY LINES, TYP.
  - PROPOSED EASEMENT, TYP.
  - EXISTING LIGHT POLE LOCATION TO REMAIN
  - EXISTING SIGN - REFER TO CIVIL PLANS
  - NEW WAITFINDING SIGN - REFER TO WAITFINDING SIGNAGE PLAN
  - NEW STREET LIGHTS - 12' HEIGHT PEDESTRIAN POLE TO BE HERING WU-12 CAST ALUMINUM BY HERING, BLACK FINISH WITH CAST SINGLE BOX GFI RECEPTACLE WITH WEATHERPROOF COVER AND BANNER ARM - FIXTURE TO BE EDGEWATER MEDIUM FILTER BY SPRING CITY, 85 WATT INDUCTION LAMP, 2000K, 20" DIA. X 24" HEIGHT, PROTECTED BREEDED ACRYLIC GLASS, BLACK FINISH - REFER TO PHOTO METRICS
  - TREE UPLIGHT - REFER TO LANDSCAPE PLANS AND ELECTRICAL PLANS
  - TRASH RECEPTACLE (QTY. 1)  
PRODUCT - PENNSYLVANIA AVENUE TRASH RECEPTACLE MODEL 02, WITH SIDE OPENINGS AND HINGED SIDE DOOR  
SIZE - 23 1/2" DIA. X 31 1/4"  
SURFACE MOUNT TO CONCRETE PAD - INSTALL PER MANUFACTURER'S SPECIFICATIONS  
MANUF. - CANTERBURY DESIGNS  
PHONE - 800-339-7111  
WEBSITE - WWW.CANTERBURY-DESIGNS.COM
  - BENCH (QTY. 16)  
PRODUCT - KENTON BENCH, 8KB-65  
SIZE - 12'L X 34"W X 29"D  
COLOR - BLACK  
SURFACE MOUNT TO CONCRETE PAD - INSTALL PER MANUFACTURER'S SPECIFICATIONS  
MANUF. - CONCEPTUAL SITE FURNISHINGS  
PHONE - 616-340-9830  
WEBSITE - WWW.CONCEPTUALSITE.COM
  - BIKE RACK (QTY. 6)  
PRODUCT - U SHAPED BIKE RACK  
SIZE - 36"  
COLOR - BLACK  
SURFACE MOUNTED TO CONCRETE PAVING - INSTALL PER MANUFACTURER'S SPECIFICATIONS  
MANUF. - S 4 G PRODUCTS  
PHONE - 511-546-5040  
WEBSITE - WWW.S4GFABRICATORS.COM
  - DOG WASTE STATION (QTY. 5)  
ULTIMATE STATION WITH LOCKING CAN AND CHUTE AND ONEPUL HEADER BAG DISPENSER, COLOR BLACK  
MANUF. - DOG WASTE DEPOT  
PHONE - 800-678-1633  
WEBSITE - WWW.DOGWASTEDEPOT.COM
  - DRINKING FOUNTAIN (QTY. 2)  
24"0 SPINNS WITH FET FOUNTAIN, BOTTLE FILLING STATION, HI-LOW DRINKING FOUNTAIN, HOSE BIB, AND SEASONAL DRINKING FOUNTAIN COVERS, COLOR BLACK  
INSTALL PER MANUFACTURER'S SPECIFICATIONS  
MANUF. - MOST DEPENDABLE FOUNTAIN  
PHONE - 507-851-0029  
WEBSITE - WWW.MOSTDEPENDABLE.COM
  - BIKE REPAIR STATION (QTY. 2)  
PRODUCT - DELIXE PUBLIC WORK STAND WITH OUTDOOR PUBLIC BIKE PUMP WITH GAUGE  
COLOR - BLACK  
SURFACE MOUNTED TO CONCRETE PAVING - INSTALL PER MANUFACTURER'S SPECIFICATIONS  
MANUF. - SARIS INFRASTRUCTURE  
PHONE - 800-393-7221  
WEBSITE - WWW.SARISINFRASTRUCTURE.COM

- Note Key:** (APPLIES TO L100-L101, NOT ALL NOTES APPLY TO EACH SHEET)
- JOHNSON DRAIN AND EXISTING WOODED AREA, TYP.
  - 10' WIDE ASPHALT PATHWAY, TYP. - REFER TO CIVIL PLANS
  - EASEMENT LINE - REFER TO CIVIL PLANS
  - BARRIER FREE RAMP AT CROSSWALK - REFER TO CIVIL PLANS
  - MIDDLE ROUGE RIVER - REFER TO BARR ENGINEERING PLANS FOR ALL ADDITIONAL RIVER BANK INFORMATION
  - TURN AROUND - N.I.C.
  - BENCH, TYP. - REFER TO ENLARGEMENT PLAN
  - TRASH RECEPTACLE, TYP.
  - AMENITY STATION - REFER TO ENLARGEMENT PLANS
  - 12' WIDE PEDESTRIAN BRIDGE - REFER TO DETAILS AND STRUCTURAL PLANS
  - BRIDGE WING WALLS - REFER TO DETAILS AND STRUCTURAL PLANS
  - RELOCATED CABIN - FINAL LOCATION AND DESIGN TO BE COORDINATED WITH RIVER TASK FORCE - N.I.C.
  - CONCRETE PAVEMENT AT PARK ENTRANCE PLAZAS
  - GRASSPAVE AREA FOR FOND ACCESS, TYP. - N.I.C.
  - SPILLWAY - REFER TO CIVIL PLANS - N.I.C.
  - DOG WASTE STATION, TYP. - REFER TO DETAIL
  - BOULDER OUTCROPPINGS AT RIVER ACCESS, TYP. - REFER TO ENLARGEMENT PLAN AND DETAILS
  - STAIRS AND BOULDER RETAINING WALLS - REFER TO ENLARGEMENT PLAN AND DETAILS
  - CITY STANDARD MONUMENTAL GROUND SIGN - REFER TO WAITFINDING SIGNAGE PLAN
  - WAITFINDING SIGN MOUNTED TO DECORATIVE POLE, NO LIGHT AT THIS LOCATION - REFER TO WAITFINDING SIGNAGE PLAN
  - TRANSFORMER AND DISTRIBUTION PANEL - REFER TO ELECTRICAL PLANS
  - UNP RIVER ACCESS PATH, TYP. - REFER TO DETAILS



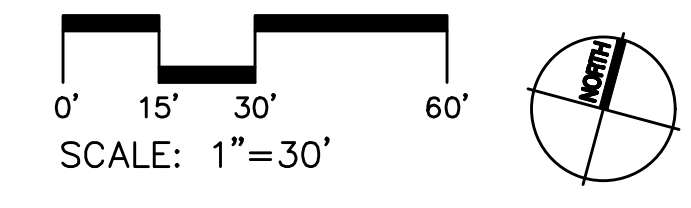
**Key Map**  
Scale: Not to Scale

**GRISSIM  
METZ ASSOCIATES  
ANDRIESE**

Landscape Architecture  
15000 Edwards N. Hines Dr., Suite A  
Plymouth, MI 48170  
Ph: 248-347-7010

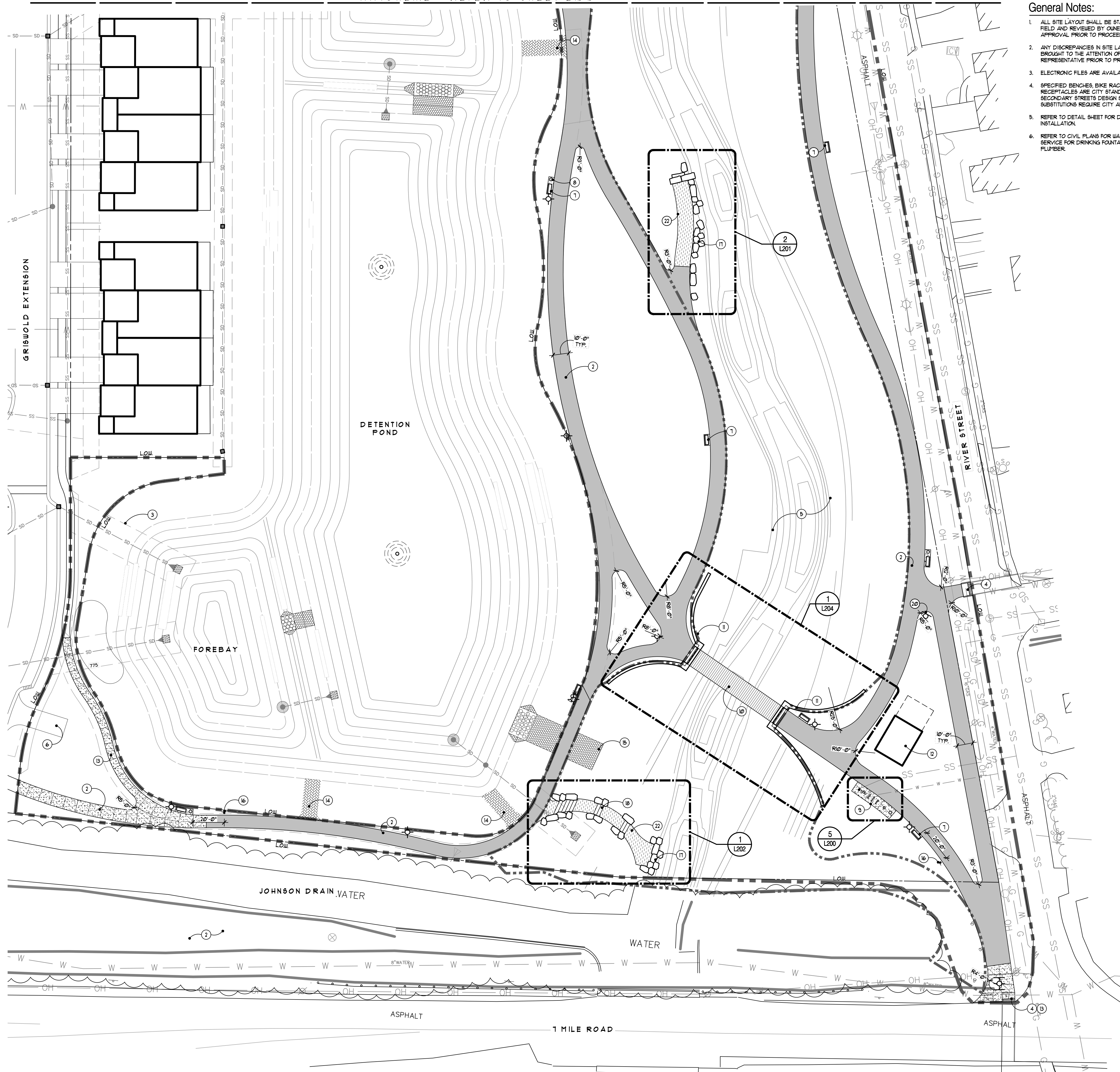
Project: \_\_\_\_\_  
**The Downs**  
 River Park  
 Northville, MI  
 Sheet: \_\_\_\_\_  
**Layout Plan**  
 Job Number: H70-222  
 Drawn: TFW  
 Checked: RH  
 Scale: \_\_\_\_\_

Date: 04.22.2024 Issued for: Bids



MATCHLINE - REFER TO SHEET L101

NOT FOR CONSTRUCTION



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6. REFER TO CIVIL PLANS FOR WATER AND SANITARY SERVICE FOR DRINKING FOUNTAIN. COORDINATE WITH PLUMBER.

**Legend:**

- PROPERTY LINE, TYP.
- LOW
- RIVER PARK LIMIT OF WORK
- RIVER CHANNEL LANDSCAPE ZONE - REFER TO BARR ENGINEERING PLANS
- SS --- SS --- SS EXISTING UTILITY LINES, TYP.
- W --- W --- W PROPOSED UTILITY LINES, TYP.
- PROPOSED EASEMENT, TYP.
- ☼ EXISTING LIGHT POLE LOCATION TO REMAIN
- ⊕ EXISTING SIGN - REFER TO CIVIL PLANS
- ⊕ NEW WAYFINDING SIGN - REFER TO WAYFINDING SIGNAGE PLAN
- ⊕ NEW STREET LIGHTS - 12' HEIGHT PEDESTRIAN POLE TO BE HERIUM WU-12 CAST ALUMINUM BY HERIUM, BLACK FINISH WITH CAST SINGLE BOX GFI RECEPTACLE WITH WEATHERPROOF COVER AND BANNER ART - FIXTURE TO BE EDGEWATER MEDIUM FILTER BY SPRING CITY, 85 WATT INDUCTION LAMP, 3000K, 30" DIA. X 34" HEIGHT, FROSTED SEEDED ACRYLIC GLASS, BLACK FINISH - REFER TO PHOTO METRICS
- ⊕ TREE UPLIGHT - REFER TO LANDSCAPE PLANS AND ELECTRICAL PLANS
- ⊕ TRASH RECEPTACLE (QTY: 1) PRODUCT - PENNSYLVANIA AVENUE TRASH RECEPTACLE MODEL 102, WITH SIDE OPENINGS AND HINGED SIDE DOOR SIZE - 22 1/2" DIA. X 31 1/4" SURFACE MOUNT TO CONCRETE PAD - INSTALL PER MANUFACTURER'S SPECIFICATIONS MANUF. - CANTERBURY DESIGNS PHONE - 800-939-1111 WEBSITE - WWW.CANTERBURY-DESIGNS.COM
- ⊕ BENCH (QTY: 16) PRODUCT - KENTON BENCH, 8KB-69 SIZE - 12'L X 34"W X 29"D COLOR - BLACK SURFACE MOUNT TO CONCRETE PAD - INSTALL PER MANUFACTURER'S SPECIFICATIONS MANUF. - CONCEPTUAL SITE FURNISHINGS PHONE - 616-940-9830 WEBSITE - WWW.CONCEPTUALSITE.COM
- ⊕ BIKE RACK (QTY: 6) PRODUCT - U' SHAPED BIKE RACK SIZE - 36" COLOR - BLACK SURFACE MOUNTED TO CONCRETE PAVING - INSTALL PER MANUFACTURER'S SPECIFICATIONS MANUF. - 4 G PRODUCTS PHONE - 971-546-8240 WEBSITE - WWW.4GFABRICATORS.COM
- ⊕ DOG WASTE STATION (QTY: 5) ULTRATE STATION WITH LOCKING CAN AND CHUTE AND ONEFUL, HEADER BAG DISPENSER, COLOR BLACK MANUF. - DOG WASTE DEPOT PHONE - 800-678-1612 WEBSITE - WWW.DOGWASTEDEPOT.COM
- ⊕ DRINKING FOUNTAIN (QTY: 2) 2440 8"X8" WITH PET FOUNTAIN, BOTTLE FILLING STATION, HI-LOW DRINKING FOUNTAIN, HOSE BIB, AND SEASONAL DRINKING FOUNTAIN COVERS, COLOR BLACK INSTALL PER MANUFACTURER'S SPECIFICATIONS MANUF. - MOST DEPENDABLE FOUNTAIN PHONE - 901-861-0039 WEBSITE - WWW.MOSTDEPENDABLE.COM
- ⊕ BIKE REPAIR STATION (QTY: 2) PRODUCT - DELUXE PUBLIC WORK STAND WITH OUTDOOR PUBLIC BIKE PUMP WITH GAUGE COLOR - BLACK SURFACE MOUNTED TO CONCRETE PAVING - INSTALL PER MANUFACTURER'S SPECIFICATIONS MANUF. - SARIS INFRASTRUCTURE PHONE - 800-183-1251 WEBSITE - WWW.SARISINFRASTRUCTURE.COM

**Note Key:**

- 1 JOHNSON DRAIN AND EXISTING WOODED AREA, TYP.
- 2 10' WIDE ASPHALT PATHWAY, TYP. - REFER TO CIVIL PLANS
- 3 EASEMENT LINE - REFER TO CIVIL PLANS
- 4 BARRIER FREE RAMP AT CROSSWALK - REFER TO CIVIL PLANS
- 5 MIDDLE ROUGE RIVER - REFER TO BARR ENGINEERING PLANS FOR ALL ADDITIONAL RIVER BANK INFORMATION
- 6 TURN AROUND - N.I.C.
- 7 BENCH, TYP. - REFER TO ENLARGEMENT PLAN
- 8 TRASH RECEPTACLE, TYP.
- 9 AMENITY STATION - REFER TO ENLARGEMENT PLANS
- 10 12' WIDE PEDESTRIAN BRIDGE - REFER TO DETAILS AND STRUCTURAL PLANS
- 11 BRIDGE WING WALLS - REFER TO DETAILS AND STRUCTURAL PLANS
- 12 RELOCATED CABIN - FINAL LOCATION AND DESIGN TO BE COORDINATED WITH RIVER TASK FORCE - N.I.C.
- 13 CONCRETE PAVEMENT AT PARK ENTRANCE PLAZAS
- 14 GRASSPAVE AREA FOR POND ACCESS, TYP. - N.I.C.
- 15 SPILLWAY - REFER TO CIVIL PLANS - N.I.C.
- 16 DOG WASTE STATION, TYP. - REFER TO DETAIL
- 17 BOULDER OUTCROPPINGS AT RIVER ACCESS, TYP. - REFER TO ENLARGEMENT PLAN AND DETAILS
- 18 STAIRS AND BOULDER RETAINING WALLS - REFER TO ENLARGEMENT PLAN AND DETAILS
- 19 CITY STANDARD MONUMENTAL GROUND SIGN - REFER TO WAYFINDING SIGNAGE PLAN
- 20 WAYFINDING SIGN MOUNTED TO DECORATIVE POLE, NO LIGHT AT THIS LOCATION - REFER TO WAYFINDING SIGNAGE PLAN
- 21 TRANSFORMER AND DISTRIBUTION PANEL - REFER TO ELECTRICAL PLANS
- 22 UNP RIVER ACCESS PATH, TYP. - REFER TO DETAILS



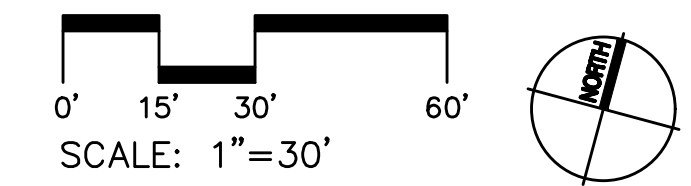
**Key Map**  
Scale: Not to Scale

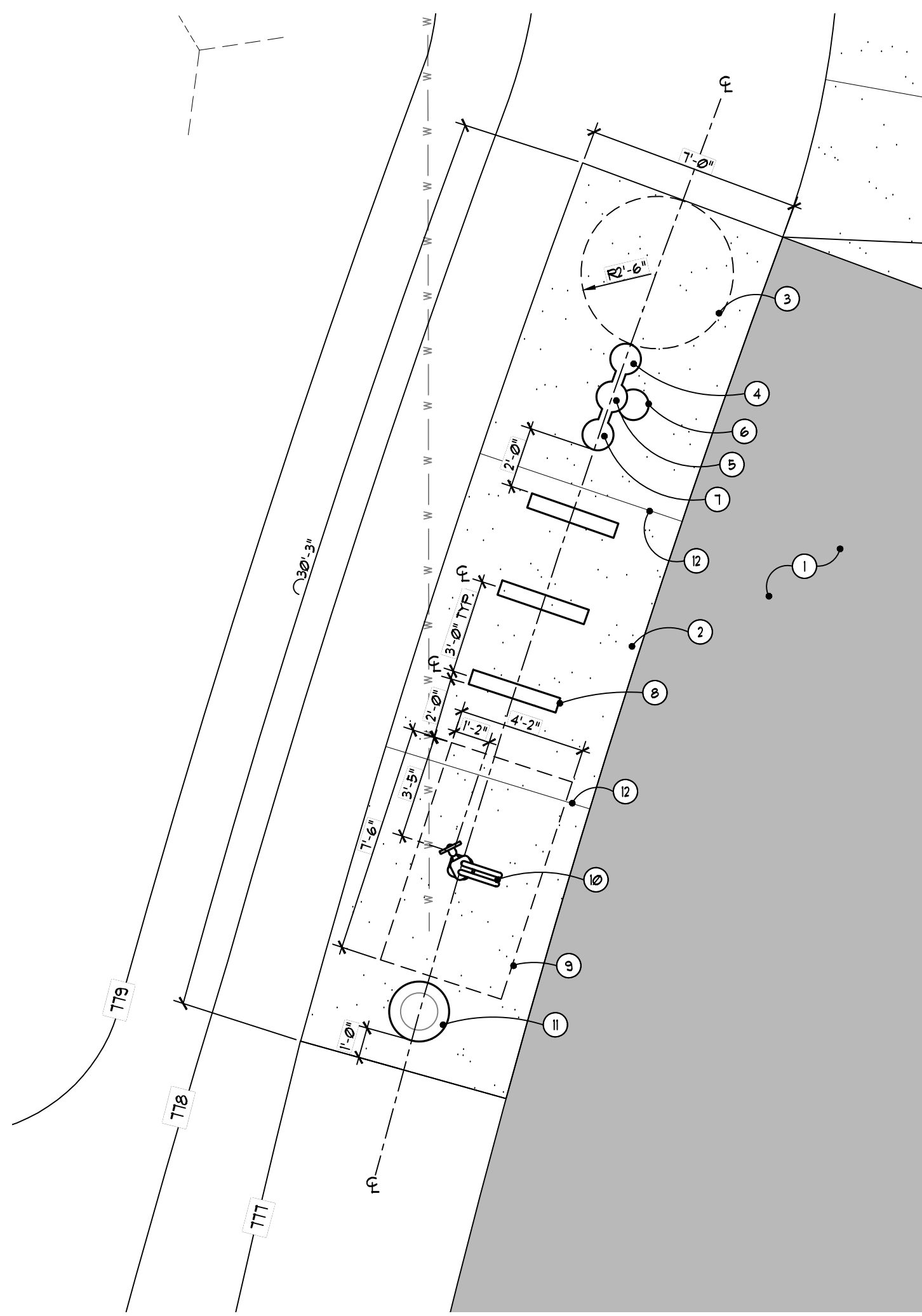
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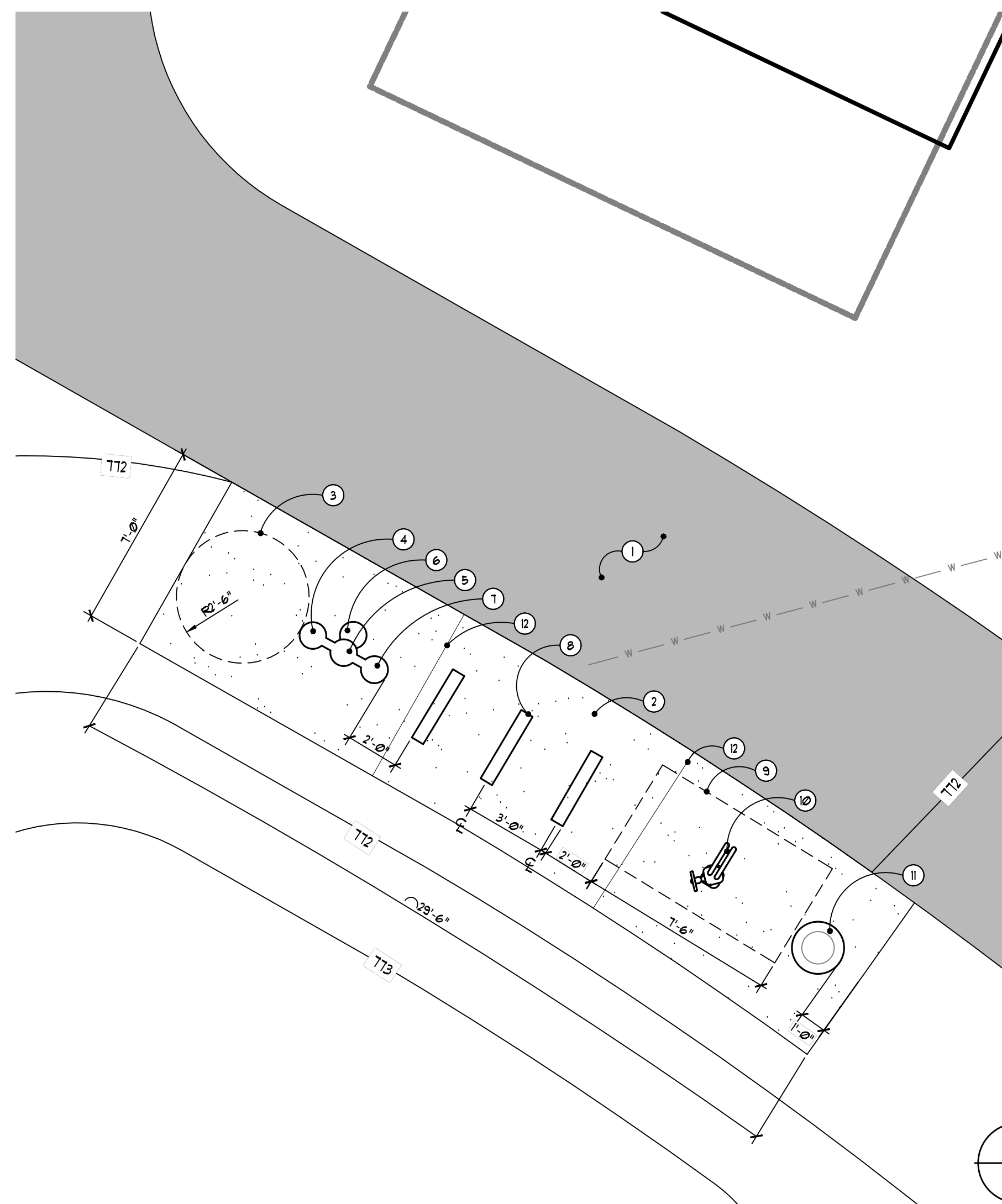
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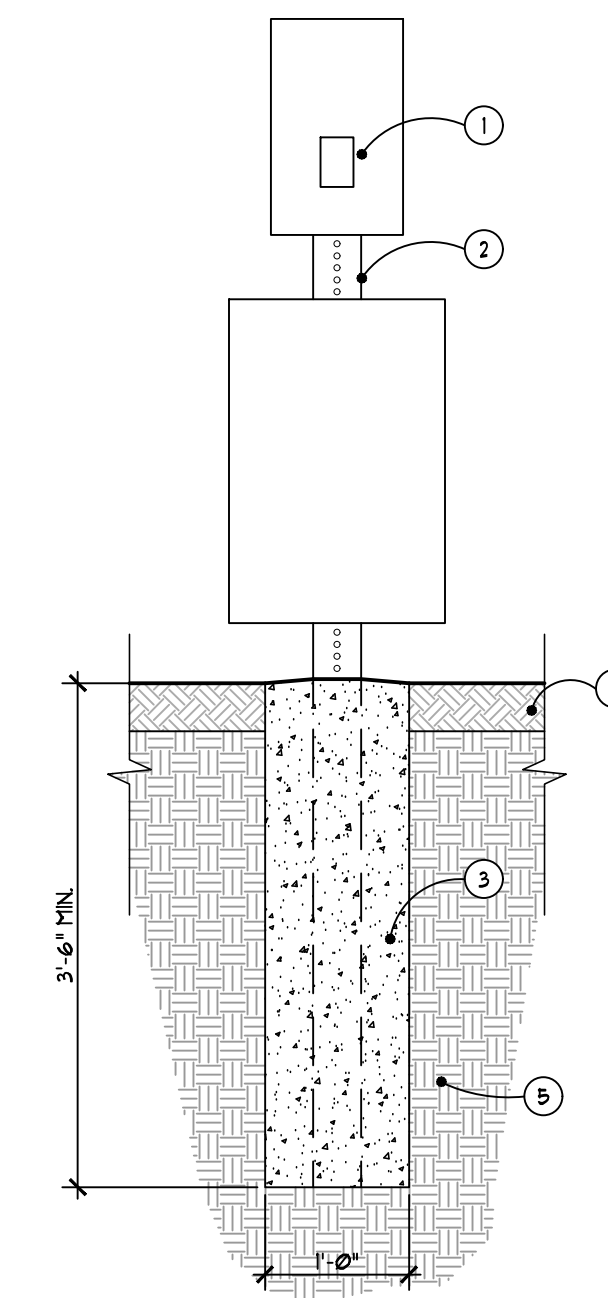


6 North Amenity Station Layout Enlargement  
L100 SCALE: 1/4" = 1'-0"



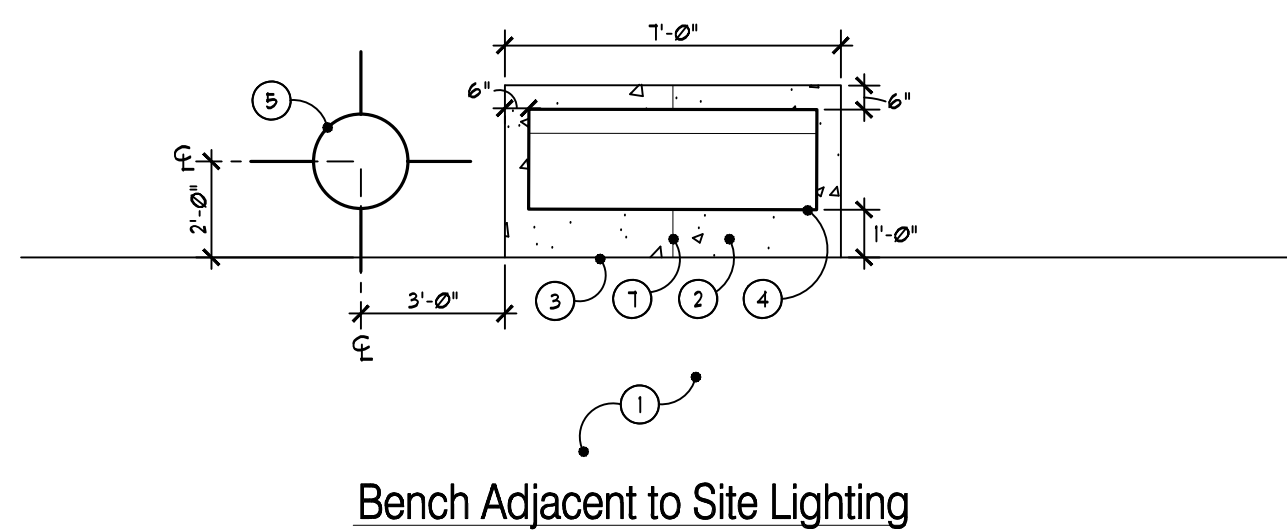
5 South Amenity Station Layout Enlargement  
L101 SCALE: 1/4" = 1'-0"

- Note Key: APPLIES TO DETAIL 5 AND 6 ON THIS SHEET.
- ① ADJACENT CONCRETE OR ASPHALT PAVEMENT, TYP. - REFER TO LAYOUT PLAN
  - ② 4" DEPTH CONCRETE PAD - REFER TO TYPICAL PAVING DETAIL
  - ③ 5' DIA. MIN. ADA ACCESSIBLE ZONE FOR DRINKING FOUNTAIN
- DRINKING FOUNTAIN WITH THE FOLLOWING AMENITIES - REFER TO LAYOUT PLAN. PROVIDE WATER SERVICE - REFER TO CIVIL PLANS
- ④ ADA LO ARM - REFER TO LAYOUT PLAN
  - ⑤ ADA HI ARM AND HOSE BIBB
  - ⑥ PET FOUNTAIN
  - ⑦ BOTTLE FILLING STATION
  - ⑧ THREE (3) BIKE HOOPS, TYP. - SURFACE MOUNT PER MANUFACTURER'S SPECIFICATIONS - REFER TO LAYOUT PLAN
  - ⑨ CLEARANCE ZONE FOR BIKE REPAIR STATION PER MANUFACTURER'S GUIDELINES
  - ⑩ BIKE REPAIR STATION WITH AIR PUMP, SURFACE MOUNT PER MANUFACTURER'S GUIDELINES - REFER TO LAYOUT PLAN
  - ⑪ TRASH RECEPTACLE, TYP. SURFACE MOUNT PER MANUFACTURER'S SPECIFICATIONS - REFER TO LAYOUT PLAN AND SPECIFICATIONS
  - ⑫ PROVIDE (2) TOOLED CONTROL JOINTS IN SLAB, SPACED EQUALLY ALONG LENGTH OF SLAB

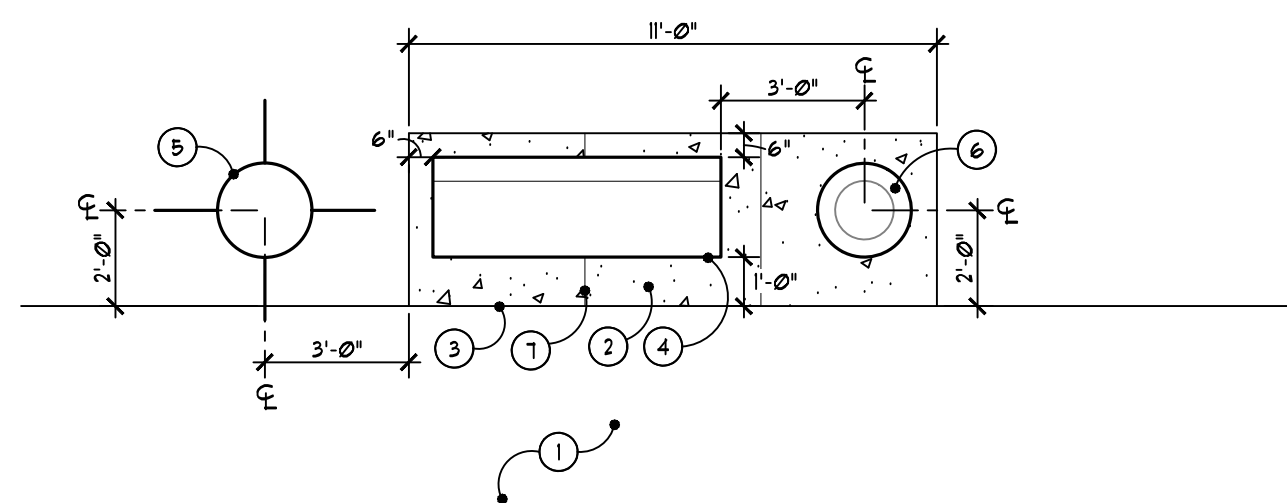


- ① DOG WASTE RECEPTACLE WITH TRASH AND BAG DISPENSER - REFER TO FURNITURE PLAN. INSTALL PER MANUFACTURER'S RECOMMENDATIONS
- ② GALVANIZED POST PROVIDED BY MANUFACTURER
- ③ CONCRETE FOOTING FORMED WITH SMOOTHIE. CROWN TOP OF FOOTING AS SHOWN AND PROVIDE SMOOTH TROUPEL FINISH ON EXPOSED CONCRETE. SET TOP OF FOOTING FLUSH WITH FINISH GRADE
- ④ ADJACENT LAWN OR CONCRETE PAVEMENT - REFER TO PLAN
- ⑤ EXISTING SUBGRADE, COMPACT TOP 12" (MIN) TO 95% MODIFIED PROCTOR, TYP. OR ENGINEERED FILL, COMPACTED AND INSTALLED PER GEOTECH DOCUMENTS

3 Dog Waste Receptacle Detail  
SCALE: 3/4" = 1'-0"



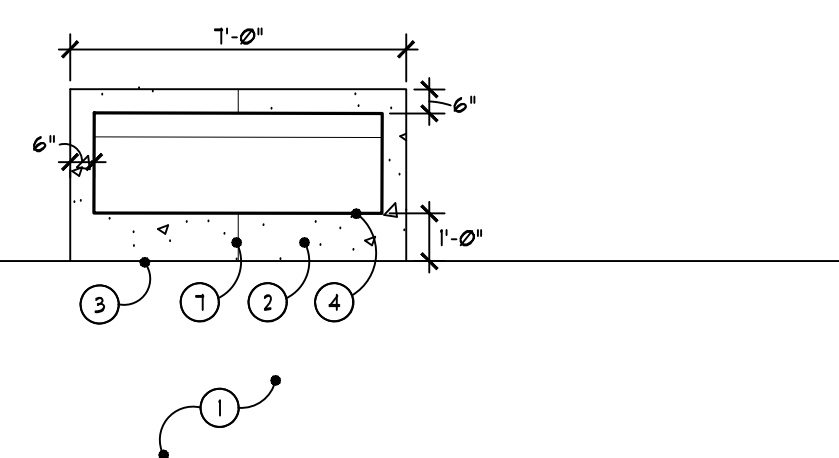
Bench Adjacent to Site Lighting



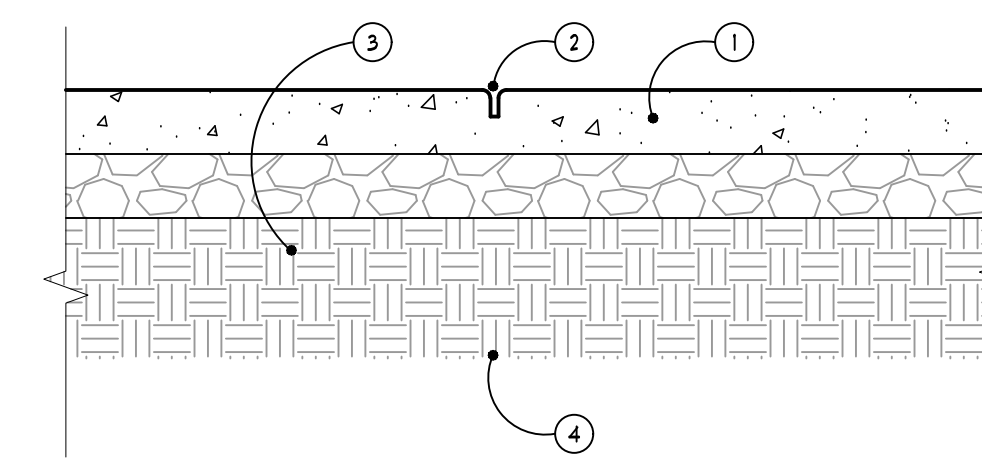
Bench and Trash Receptacle Adjacent to Site Lighting

4 Bench Layout Enlargements  
SCALE: 1/4" = 1'-0"

- ① ADJACENT CONCRETE OR ASPHALT PAVEMENT, TYP. - REFER TO LAYOUT PLAN
- ② 4" DEPTH CONCRETE PAD - REFER TO TYPICAL PAVING DETAIL
- ③ 1/2" EXPANSION JOINT, TYP. - WHEN ADJACENT TO CONCRETE PAVEMENT - REFER TO TYPICAL DETAIL
- ④ 12" L BENCH, TYP. SURFACE MOUNT PER MANUFACTURER'S SPECIFICATIONS - REFER TO LAYOUT PLAN AND SPECIFICATIONS
- ⑤ SITE LIGHTING, TYP. - REFER TO LAYOUT PLAN AND SITE ELECTRICAL PLANS
- ⑥ TRASH RECEPTACLE, TYP. SURFACE MOUNT PER MANUFACTURER'S SPECIFICATIONS - REFER TO LAYOUT PLAN AND SPECIFICATIONS
- ⑦ PROVIDE TOOLED CONTROL JOINTS IN SLAB, SPACED EQUALLY ALONG LENGTH OF SLAB

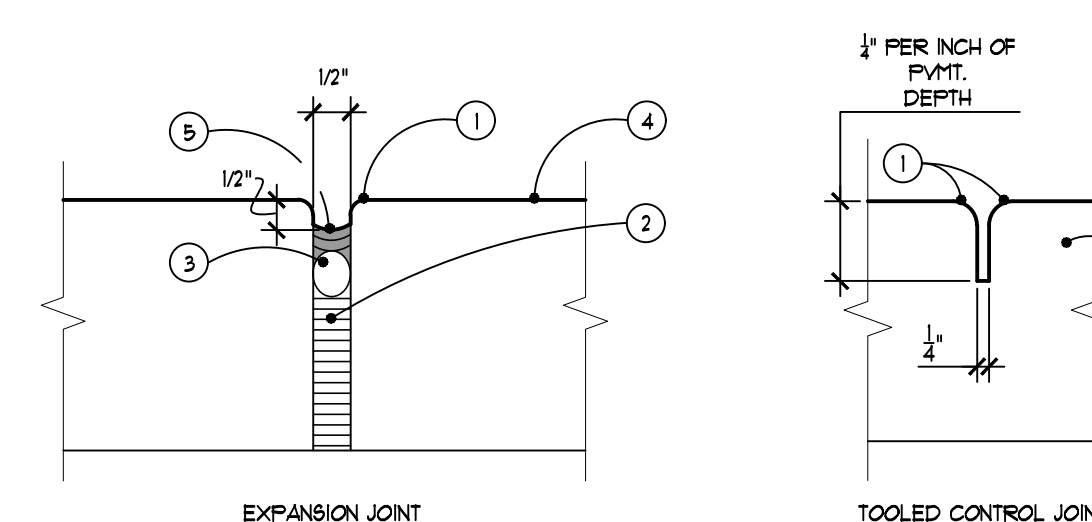


Bench on Concrete Pad



- ① 4" THK CONCRETE PAVEMENT, TYP. - PROVIDE LIGHT BROOM FINISH AND TOOLED JOINTS
- ② STANDARD TOOLED CONTROL JOINT - REFER TO PLANS FOR PATTERN AND TYPICAL JOINT DETAILS
- ③ 4" DEPTH 21AA NATURAL LIMESTONE BASE, COMPACT TO 95% MODIFIED PROCTOR, TYP.
- ④ EXISTING SUBGRADE, COMPACT TOP 12" (MIN) TO 95% MODIFIED PROCTOR, TYP. OR ENGINEERED FILL, COMPACTED AND INSTALLED PER GEOTECH DOCUMENTS

2 Typical Concrete Pad for Site Amenities  
SCALE: 1" = 1'-0"



1 Typical Expansion Joint / Tooled Control Joint Details  
NOT TO SCALE

- ① 1/2" TOOLED RADIUS (SMOOTH)
- ② EXPANSION JOINT FILLER - HOLD 1/2" BELOW SURFACE
- ③ BACKER ROD
- ④ TYPICAL CONCRETE PAVEMENT
- ⑤ SEALANT COLOR TO MATCH ADJACENT PAVEMENT. HOLD 1/2" BELOW SURFACE. SUBMIT SAMPLES AND PRODUCT INFO FOR APPROVAL

NOTES  
1. EXPANSION JOINTS SHALL BE LOCATED WITHIN CONCRETE PAVEMENT AS SHOWN ON PLANS, ABUTTING EXISTING CONCRETE PAVING, EXISTING AND NEW CURBS OR PLANTERS, WALLS, BETWEEN NEW CONCRETE POURS, BETWEEN NEW CONCRETE AND EXISTING STRUCTURES, OR AS NOTED OTHERWISE.  
2. PROVIDE FULL DEPTH EXPANSION JOINT FABRIC WITH BACKER ROD AND SEALANT BETWEEN ALL PAVING SYSTEMS AND BUILDING FACADES.

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Project:  
The Downs  
River Park  
Northville, MI

Sheet:  
Site Details

Job Number: H70-222

Drawn: TFW

Checked: RH

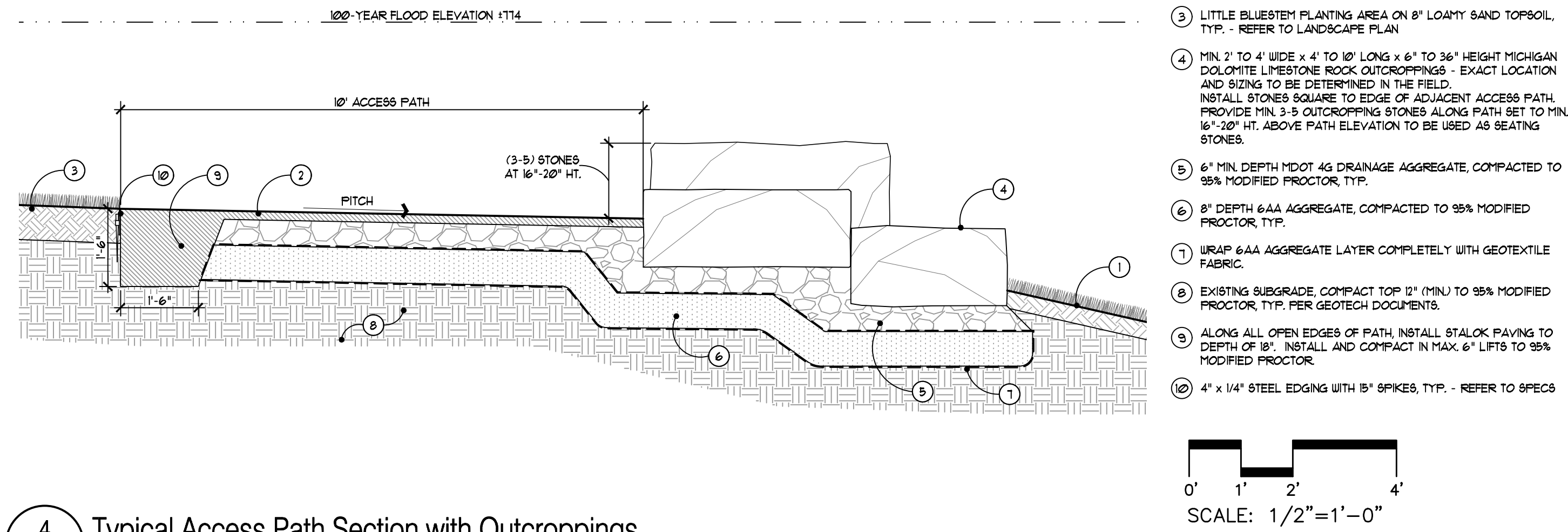
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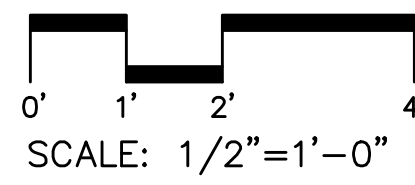
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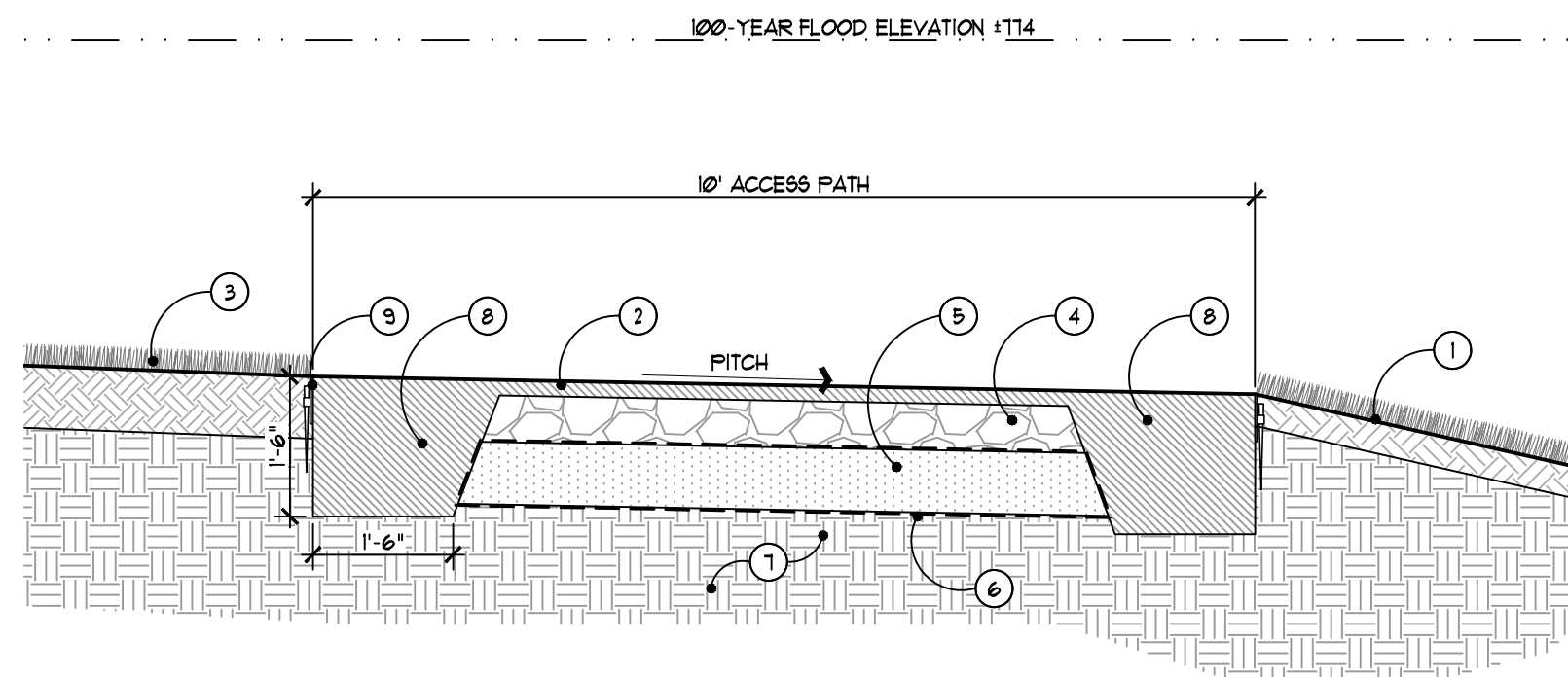
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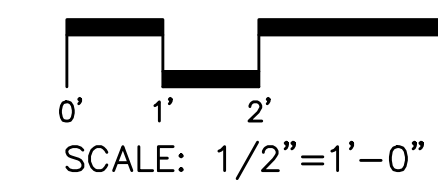
- 1 MIDDLE ROUGE RIVER - REFER TO BARR ENGINEERING PLANS
- 2 2" DEPTH STALOK WATERLESS NATURAL PAVEMENT PATH. INSTALL AND COMPACT PER SPECIFICATIONS
- 3 LITTLE BLUESTEM PLANTING AREA ON 8" LOAMY SAND TOPSOIL. TYP. - REFER TO LANDSCAPE PLAN
- 4 MIN. 2" TO 4" WIDE x 4" TO 10" LONG x 6" TO 36" HEIGHT MICHIGAN DOLOMITE LIMESTONE ROCK OUTCROPPINGS - EXACT LOCATION AND SIZING TO BE DETERMINED IN THE FIELD. INSTALL STONES SQUARE TO EDGE OF ADJACENT ACCESS PATH. PROVIDE MIN. 3-5 OUTCROPPING STONES ALONG PATH SET TO MIN. 16"x20" HT. ABOVE PATH ELEVATION TO BE USED AS SEATING STONES.
- 5 6" MIN. DEPTH MDOT 4G DRAINAGE AGGREGATE, COMPACTED TO 95% MODIFIED PROCTOR, TYP.
- 6 8" DEPTH 6AA AGGREGATE, COMPACTED TO 95% MODIFIED PROCTOR, TYP.
- 7 WRAP 6AA AGGREGATE LAYER COMPLETELY WITH GEOTEXTILE FABRIC.
- 8 EXISTING SUBGRADE, COMPACT TOP 12" (MIN) TO 95% MODIFIED PROCTOR, TYP. PER GEOTECH DOCUMENTS.
- 9 ALONG ALL OPEN EDGES OF PATH, INSTALL STALOK PAVING TO DEPTH OF 18". INSTALL AND COMPACT IN MAX. 6" LIFTS TO 95% MODIFIED PROCTOR.
- 10 4" x 1/4" STEEL EDGING WITH 15° SPIKES, TYP. - REFER TO SPECS



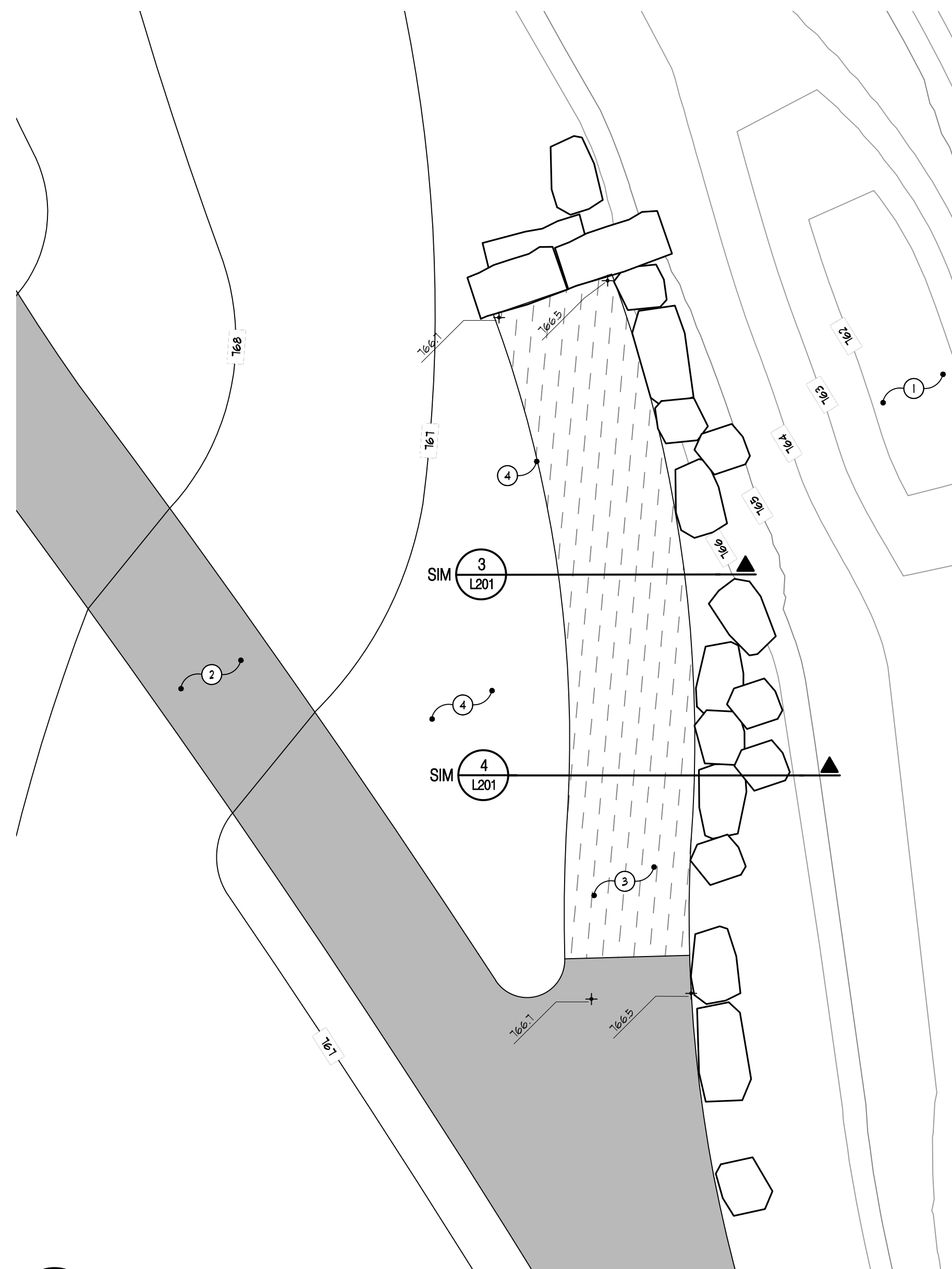
4 Typical Access Path Section with Outcroppings  
SCALE: 1/2" = 1'-0"



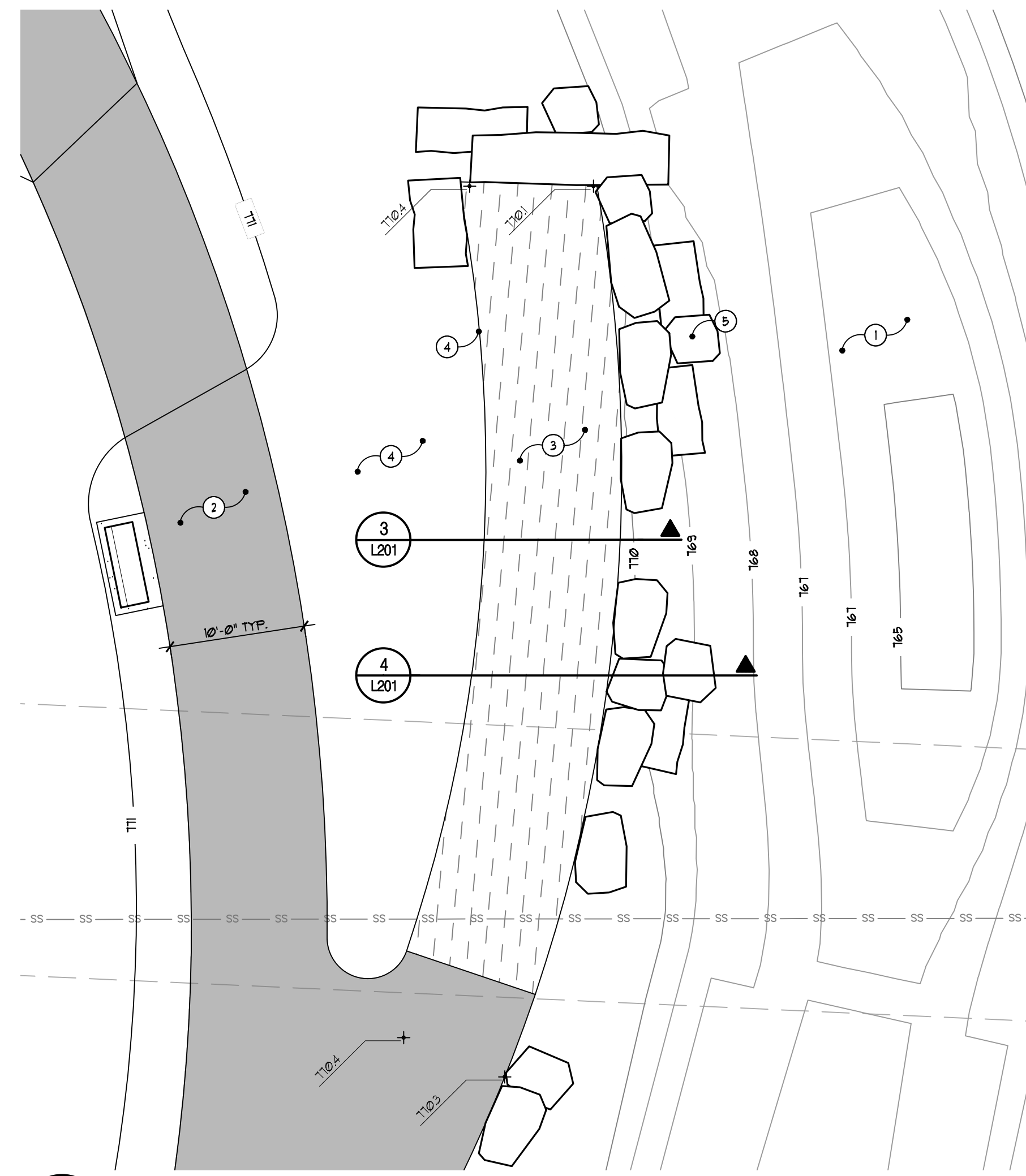
- 1 MIDDLE ROUGE RIVER - REFER TO BARR ENGINEERING PLANS
- 2 2" DEPTH STALOK WATERLESS NATURAL PAVEMENT PATH. INSTALL AND COMPACT PER SPECIFICATIONS
- 3 LITTLE BLUESTEM PLANTING AREA ON 8" LOAMY SAND TOPSOIL. TYP. - REFER TO LANDSCAPE PLAN
- 4 6" MIN. DEPTH MDOT 4G DRAINAGE AGGREGATE, COMPACTED TO 95% MODIFIED PROCTOR, TYP.
- 5 8" DEPTH 6AA AGGREGATE, COMPACTED TO 95% MODIFIED PROCTOR, TYP.
- 6 WRAP 6AA AGGREGATE LAYER COMPLETELY WITH GEOTEXTILE FABRIC.
- 7 EXISTING SUBGRADE, COMPACT TOP 12" (MIN) TO 95% MODIFIED PROCTOR, TYP. PER GEOTECH DOCUMENTS.
- 8 ALONG ALL OPEN EDGES OF PATH, INSTALL STALOK PAVING TO DEPTH OF 18". INSTALL AND COMPACT IN MAX. 6" LIFTS TO 95% MODIFIED PROCTOR.
- 9 4" x 1/4" STEEL EDGING WITH 15° SPIKES, TYP. - REFER TO SPECS



3 Typical Access Path Section  
SCALE: 1/2" = 1'-0"



2 South River Access Path  
SCALE: 1/8" = 1'-0"



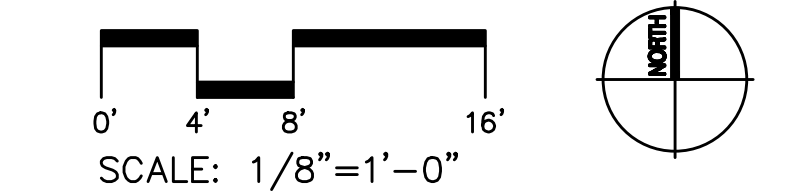
1 North River Access Path  
SCALE: 1/8" = 1'-0"

- Legend:
- EXISTING CONTOUR LINES, TYP.
  - PROPOSED CONTOUR LINES, TYP.
  - SS --- SS --- EXISTING UTILITY LINES, TYP.
  - W --- W --- PROPOSED UTILITY LINES, TYP.
  - --- PROPOSED EASEMENT, TYP.

- PROPOSED CIVIL GRADES - REFER TO CIVIL PLANS
- PROPOSED SPOT GRADE
- DIRECTION OF SLOPE, TYP.

Note:  
GMA GRADES TO BE FOLLOWED WHERE SHOWN. ALL GMA GRADES ARE COORDINATED WITH AND TIE TO CIVIL GRADES FOR OVERALL GRADING. REFER TO CIVIL PLANS FOR ADDITIONAL GRADING AND DRAINAGE INFORMATION.

- Note Key:
- 1 MIDDLE ROUGE RIVER - REFER TO BARR ENGINEERING PLANS
  - 2 ASPHALT PATHWAY, TYP. - REFER TO CIVIL PLANS
  - 3 MFR RIVER ACCESS PATHWAY, TYP. - REFER TO DETAIL AND SPECS
  - 4 LANDSCAPE AREA, TYP. - REFER TO LANDSCAPE PLANS
  - 5 ROCK OUTCROPPINGS - REFER TO TYPICAL SECTION
  - 6 4" x 1/4" STEEL EDGING WITH 15° SPIKES, TYP. - REFER TO SPECS



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The Downs  
River Park  
Northville, MI

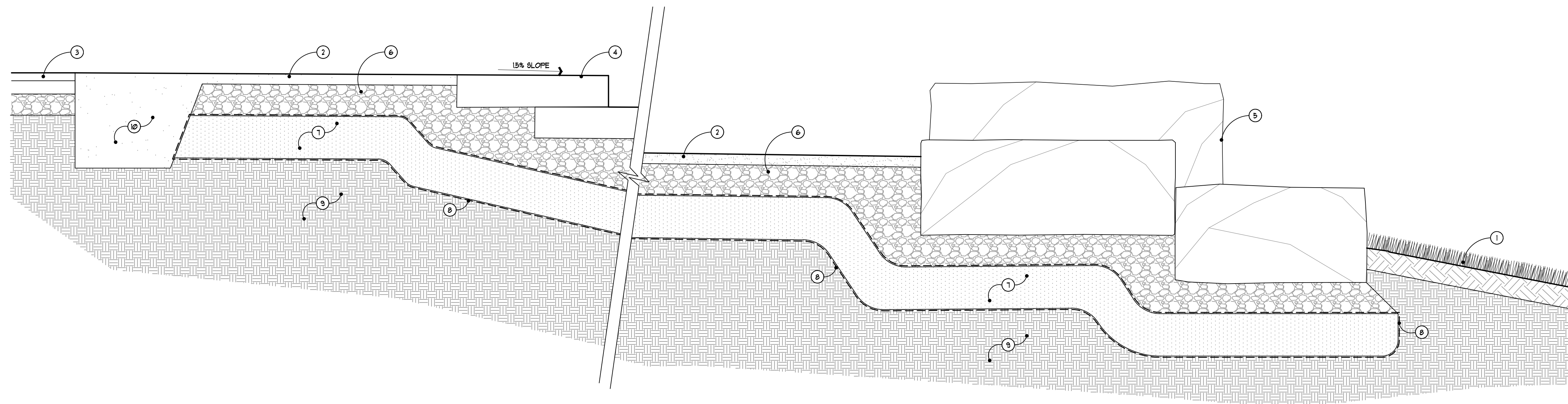
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Site Details - River Access Paths

Job Number: H70-222  
Drawn: TFW  
Checked: RH

Date: 04.22.2024  
Issued for: Bids

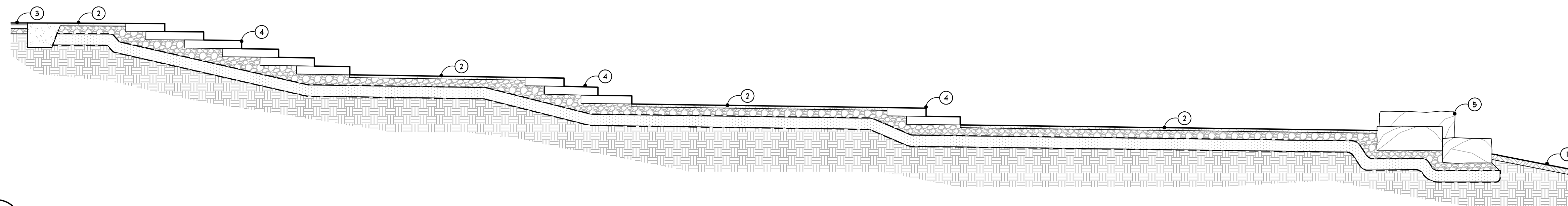
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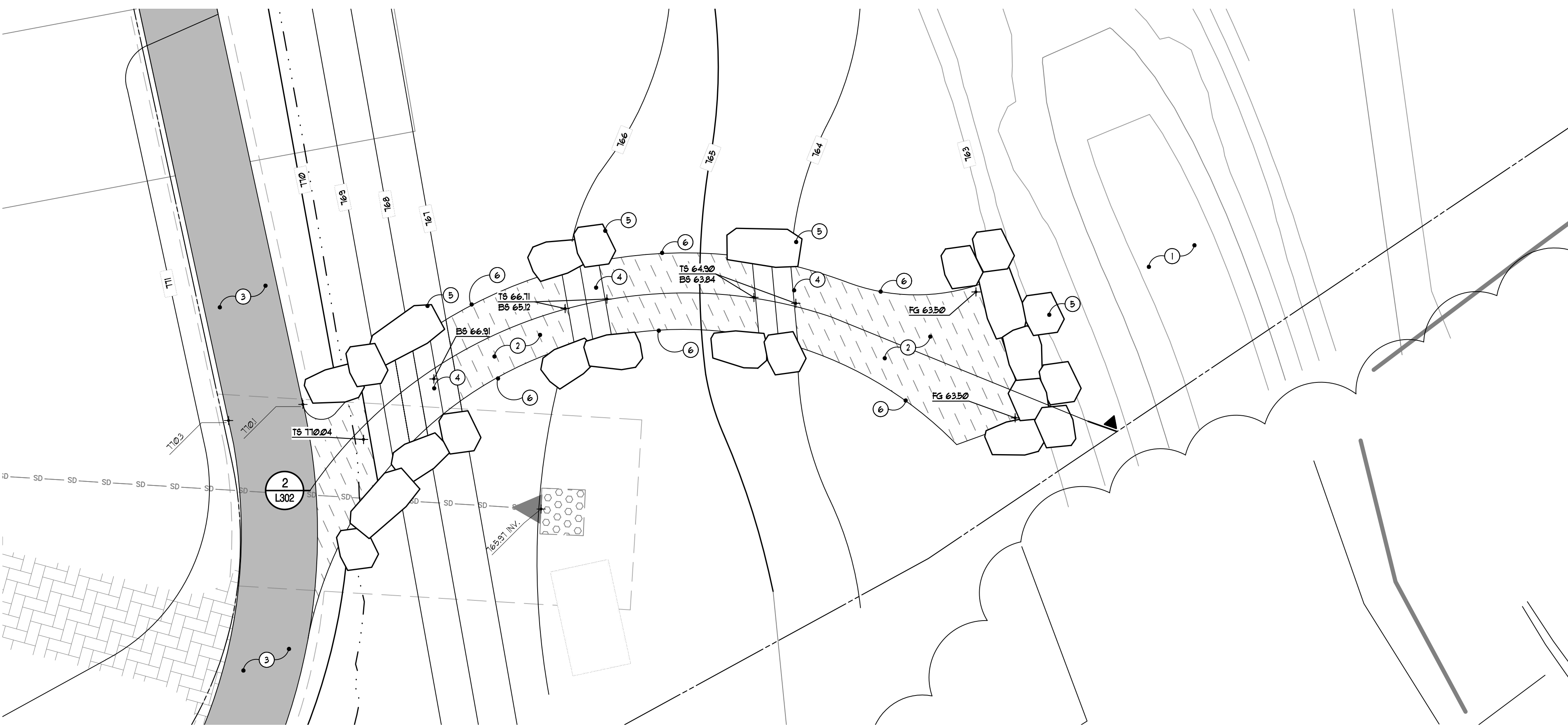
- ① MIDDLE ROUGE RIVER - REFER TO BARR ENGINEERING PLANS
- ② 2" DEPTH STALOCK WATERLESS NATURAL PAVEMENT (UNP) PATH. INSTALL AND COMPACT PER SPECIFICATIONS.
- ③ ADJACENT ASPHALT PATHWAY - REFER TO CIVIL PLANS
- ④ 6" HT. MICHIGAN DOLOMITIC LIMESTONE ROCK STAIRS, TYP.
- ⑤ MIN. 2" TO 4" WIDE x 4" TO 10" LONG x 6" TO 36" HEIGHT MICHIGAN DOLOMITIC LIMESTONE ROCK OUTCROPPINGS - EXACT LOCATION AND SIZING TO BE DETERMINED IN THE FIELD. INSTALL STONES SQUARE TO EDGE OF ADJACENT ASPHALT ACCESS PATH. PROVIDE MIN. 3-5 OUTCROPPING STONES ALONG PATH SET TO MIN. 16"-30" HT. ABOVE PATH ELEVATION TO BE USED AS SEATING STONES.
- ⑥ 6" MIN. DEPTH 100% 4G DRAINAGE AGGREGATE, COMPACTED TO 95% MODIFIED PROCTOR, TYP.
- ⑦ 8" DEPTH 6AA AGGREGATE, COMPACTED TO 95% MODIFIED PROCTOR, TYP.
- ⑧ URAP 6AA AGGREGATE LAYER COMPLETELY WITH GEOTEXTILE FABRIC.
- ⑨ EXISTING SUBGRADE, COMPACT TOP 12" (MIN) TO 95% MODIFIED PROCTOR, TYP. PER GEOTECH DOCUMENTS
- ⑩ ALONG ALL OPEN EDGES OF PATH, INSTALL STALOCK PAVING TO DEPTH OF 18". INSTALL AND COMPACT IN MAXIMUM 6' LFTS TO 95% MODIFIED PROCTOR.

3 Stairs / Access Path Detail  
SCALE: 1" = 1'-0"



- ① MIDDLE ROUGE RIVER - REFER TO BARR ENGINEERING PLANS
- ② 8' WIDE UNP RIVER ACCESS PATH - REFER TO SPECS
- ③ 8' WIDE ASPHALT PATH, TYP. - REFER TO CIVIL PLANS
- ④ 6" HT. MICHIGAN DOLOMITIC LIMESTONE ROCK STAIRS
- ⑤ MIN. 2" TO 4" WIDE TO 10" LONG x 6"-36" HEIGHT MICHIGAN DOLOMITIC LIMESTONE ROCK OUTCROPPINGS TO RETAIN ADJACENT GRADE AT STAIRS, TYP.

2 South Pedestrian Stairs Section  
SCALE: 1/4" = 1'-0"

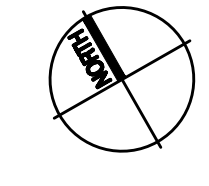
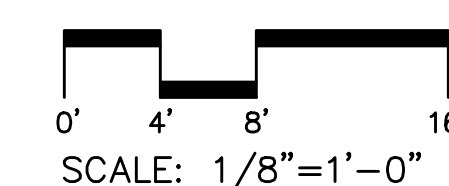


- Legend:**
- PROPERTY LINE, TYP.
  - 800 --- EXISTING CONTOUR LINES, TYP.
  - 800 --- PROPOSED CONTOUR LINES, TYP.
  - SS --- SS --- EXISTING UTILITY LINES, TYP.
  - W --- W --- W --- PROPOSED UTILITY LINES, TYP.
  - --- PROPOSED EASEMENT, TYP.
- PROPOSED CIVIL GRADES - REFER TO CIVIL PLANS
- PROPOSED SPOT GRADE
- TC TOP OF CURB
- TU TOP OF WALL
- BW BOTTOM OF WALL
- FG FINISHED GRADE
- TS TOP OF STAIR
- BS BOTTOM OF STAIR
- ← 0.5% DIRECTION OF SLOPE, TYP.

- Note Key:**
- ① MIDDLE ROUGE RIVER - REFER TO BARR ENGINEERING PLANS
  - ② 8' WIDE UNP RIVER ACCESS PATH - REFER TO DETAIL AND SPECS
  - ③ 8' WIDE ASPHALT PATH, TYP. - REFER TO CIVIL PLANS
  - ④ 6" HT. MICHIGAN DOLOMITIC LIMESTONE ROCK STAIRS - REFER TO SECTION
  - ⑤ MIN. 2" TO 4" WIDE TO 10" LONG x 6"-36" HEIGHT MICHIGAN DOLOMITIC LIMESTONE ROCK OUTCROPPINGS TO RETAIN ADJACENT GRADE AT STAIRS, TYP.
  - ⑥ 4" x 1/4" STEEL EDGING WITH 1/8" SPIKES, TYP. - REFER TO SPECS

**Note:**  
GMA GRADES TO BE FOLLOWED WHERE SHOWN. ALL GMA GRADES ARE COORDINATED WITH AND TIE TO CIVIL GRADES FOR OVERALL GRADING. REFER TO CIVIL PLANS FOR ADDITIONAL GRADING AND DRAINAGE INFORMATION.

1 South Pedestrian Stairs  
L101 SCALE: 1/8" = 1'-0"



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River Park**  
Northville, MI

Sheet:  
**Site Details - South Pedestrian Stairs**

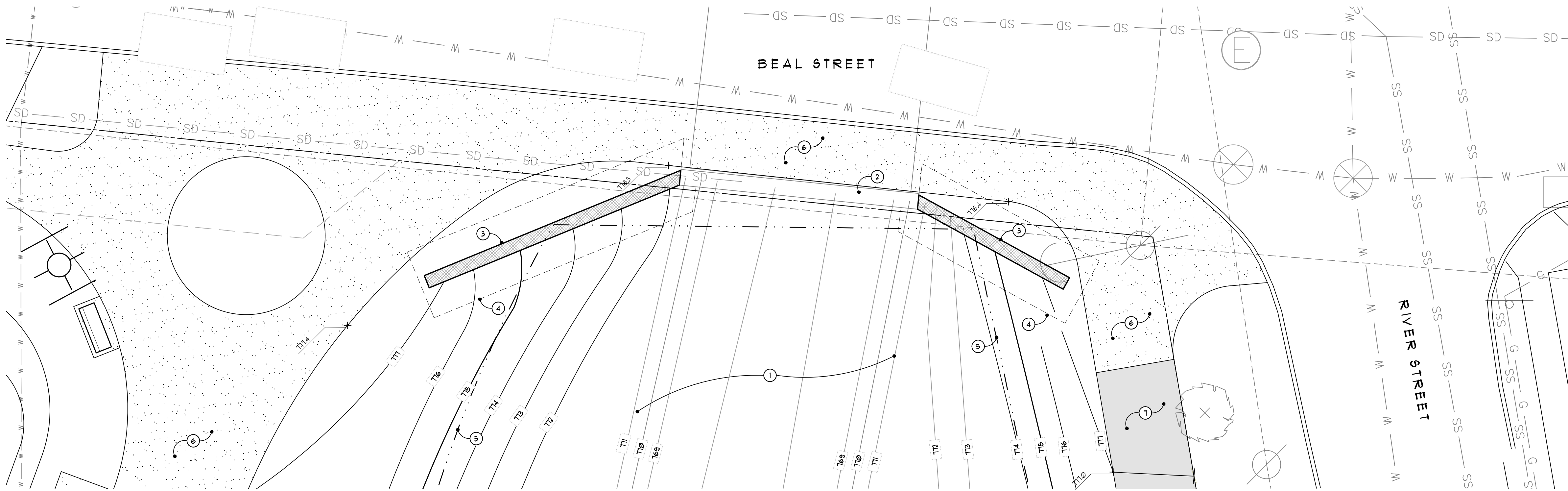
Job Number: H70-222  
Drawn: TFW  
Checked: RH

Date: 04.22.2024 Issued for: Bids

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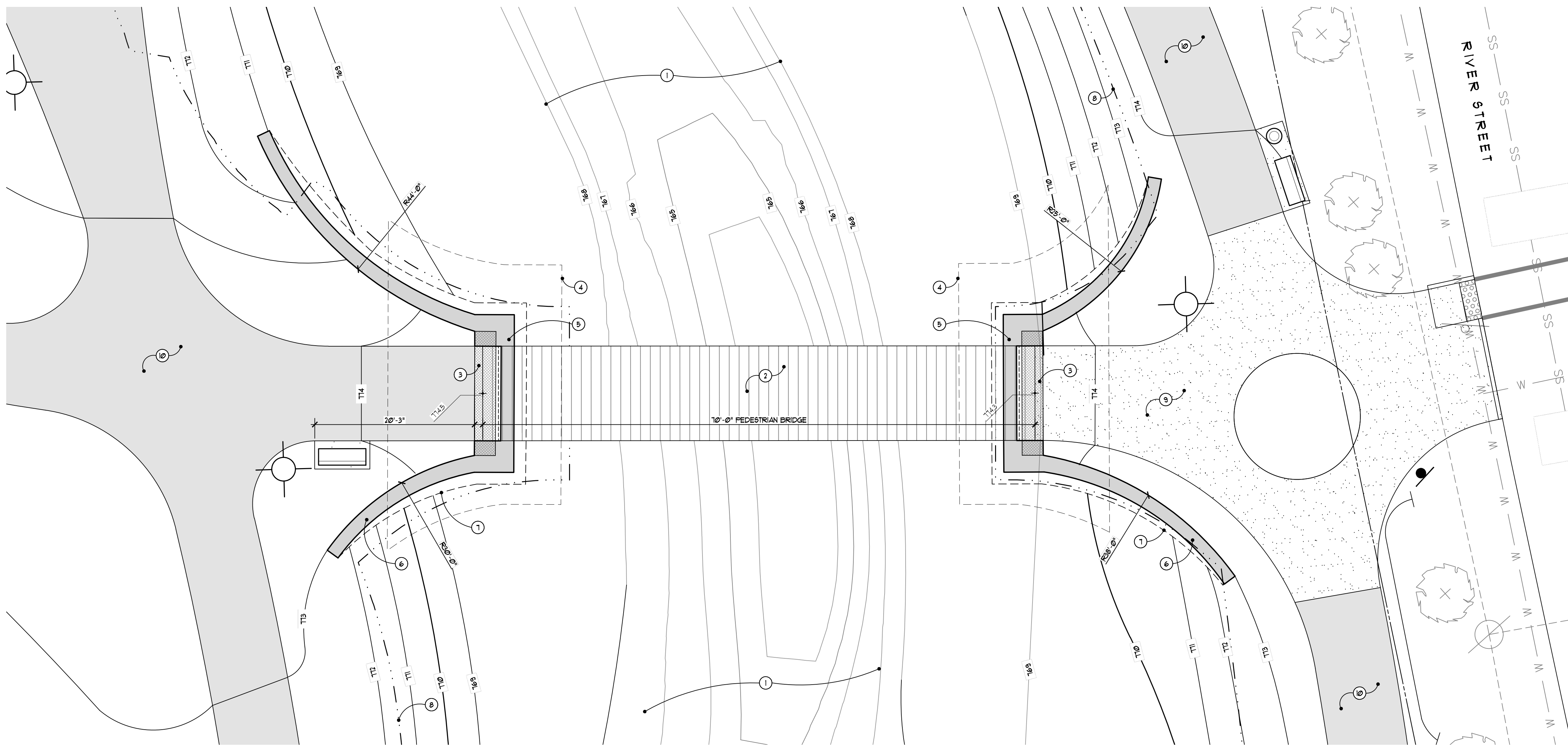
**L202**

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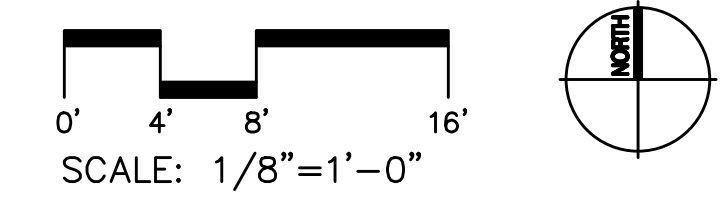
- Legend:**
- PROPERTY LINE, TYP.
  - 800 — PROPOSED CONTOUR LINES, TYP.
  - SS — EXISTING UTILITY LINES, TYP.
  - W — PROPOSED UTILITY LINES, TYP.
  - - - PROPOSED EASEMENT, TYP.
  - 800.25 TC + — PROPOSED CIVIL GRADES - REFER TO CIVIL PLANS
  - 810.50 — PROPOSED SPOT GRADE
  - TC — TOP OF CURB
  - TW — TOP OF WALL
  - BW — BOTTOM OF WALL
  - FG — FINISHED GRADE
  - 0.5% — DIRECTION OF SLOPE, TYP.
- Note Key:**
- ① MIDDLE ROUGE RIVER - REFER TO BARR ENGINEERING PLANS
  - ② APPROXIMATE LOCATION OF EXISTING BRIDGE HEADWALLS TO REMAIN - REFER TO CIVIL PLANS
  - ③ CONCRETE WING WALLS CLAD WITH STONE VENEER TO MATCH EXISTING HEADWALLS - REFER TO STRUCTURAL PLANS
  - ④ WING WALL FOOTING LIMITS - REFER TO STRUCTURAL PLANS
  - ⑤ 100-YEAR FLOODPLAIN ELEVATION - REFER TO BARR ENGINEERING PLANS
  - ⑥ CONCRETE WALKWAY - REFER TO LAYOUT PLAN AND CIVIL PLANS
  - ⑦ ASPHALT WALKWAY - REFER TO LAYOUT PLAN AND CIVIL PLANS

**2** Beal Street Walls  
L100 SCALE: 1/8" = 1'-0"



- Legend:**
- PROPERTY LINE, TYP.
  - 800 — PROPOSED CONTOUR LINES, TYP.
  - SS — EXISTING UTILITY LINES, TYP.
  - W — PROPOSED UTILITY LINES, TYP.
  - - - PROPOSED EASEMENT, TYP.
  - 800.25 TC + — PROPOSED CIVIL GRADES - REFER TO CIVIL PLANS
  - 810.50 — PROPOSED SPOT GRADE
  - TC — TOP OF CURB
  - TW — TOP OF WALL
  - BW — BOTTOM OF WALL
  - FG — FINISHED GRADE
  - 0.5% — DIRECTION OF SLOPE, TYP.
  - BENCH - REFER TO TYPICAL DETAILS
  - — LIGHT - REFER TO LAYOUT PLAN AND ELECTRICAL PLANS
- Note Key:**
- ① MIDDLE ROUGE RIVER - REFER TO BARR ENGINEERING PLANS
  - ② 12' WIDE PEDESTRIAN BRIDGE - REFER TO DETAIL SHEET L205
  - ③ BRIDGE ABUTMENT WALL - REFER TO STRUCTURAL PLANS
  - ④ ABUTMENT WALL FOOTING LIMITS - REFER TO STRUCTURAL PLANS
  - ⑤ HIGH FORMAT OUTCROPPING WALL IN FRONT OF ABUTMENT WALLS - REFER TO SPECS
  - ⑥ HIGH FORMAT OUTCROPPING WING WALL - REFER TO SPECS
  - ⑦ APPROXIMATE OUTCROPPING WALL TOE OF SLOPE - REFER TO MANUFACTURER'S DETAILS AND SPECIFICATIONS
  - ⑧ 100-YEAR FLOODPLAIN ELEVATION - REFER TO BARR ENGINEERING PLANS
  - ⑨ CONCRETE WALKWAY - REFER TO LAYOUT PLAN AND CIVIL PLANS
  - ⑩ ASPHALT WALKWAY - REFER TO LAYOUT PLAN AND CIVIL PLANS

**1** North Pedestrian Bridge  
L100 SCALE: 1/8" = 1'-0"



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River Park**  
Northville, MI

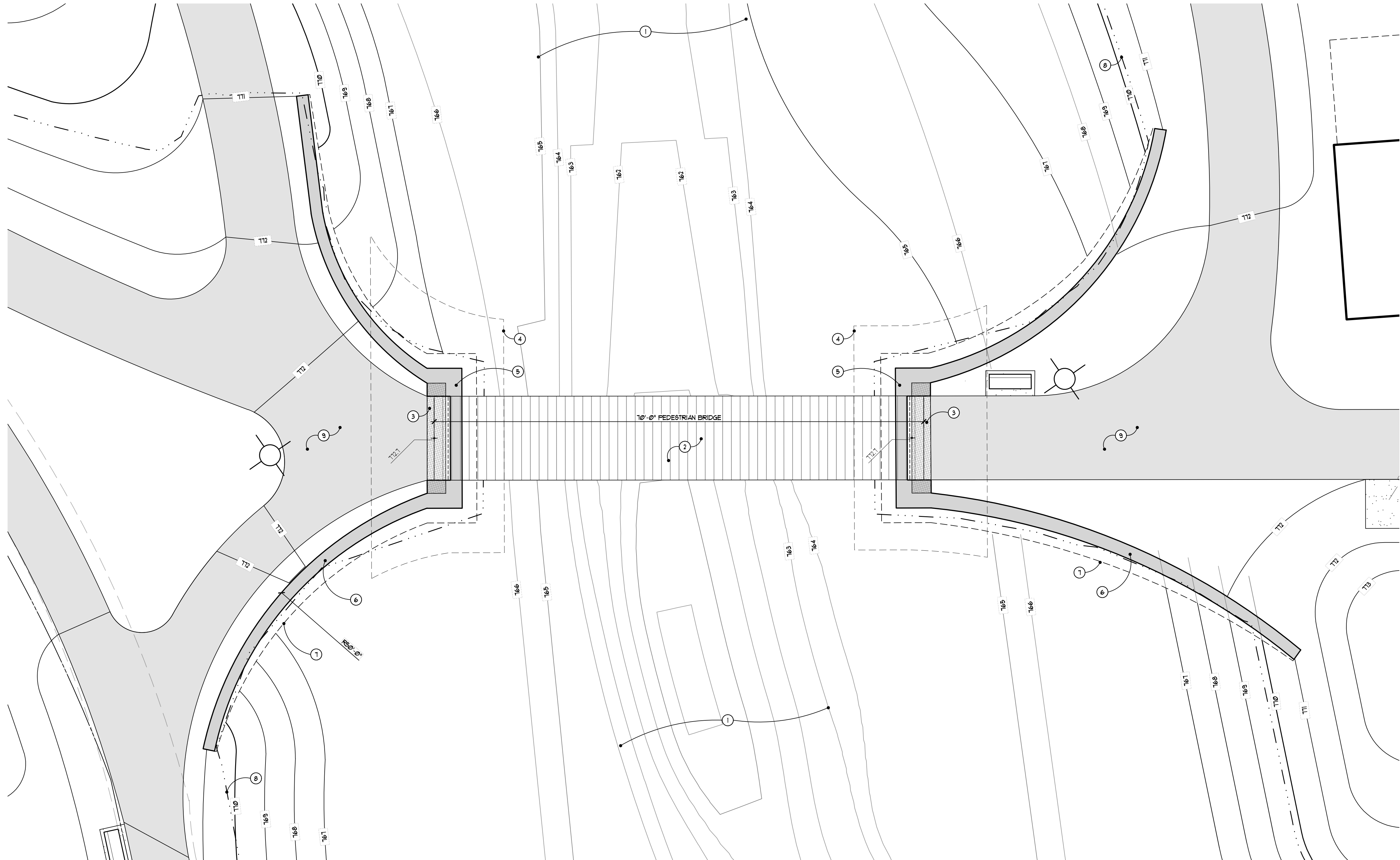
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**Site Details - Beal Street Retaining Walls**

Job Number: H70-222  
Drawn: TFW  
Checked: RH  
Scale:

Date: 04.22.2024 Issued for: Bids

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- Legend:**
- PROPERTY LINE, TYP.
  - PROPOSED CONTOUR LINES, TYP.
  - EXISTING UTILITY LINES, TYP.
  - PROPOSED UTILITY LINES, TYP.
  - PROPOSED EASEMENT, TYP.
  - PROPOSED CIVIL GRADES - REFER TO CIVIL PLANS
  - PROPOSED SPOT GRADE
  - TOP OF CURB
  - TOP OF WALL
  - BOTTOM OF WALL
  - FINISHED GRADE
  - DIRECTION OF SLOPE, TYP.
  - BENCH - REFER TO TYPICAL DETAILS
  - LIGHT - REFER TO LAYOUT PLAN AND ELECTRICAL PLANS

- Note Key:**
- ① MIDDLE ROUGE RIVER - REFER TO BARR ENGINEERING PLANS
  - ② 12' WIDE PEDESTRIAN BRIDGE - REFER TO DETAIL SHEET L205
  - ③ BRIDGE ABUTMENT WALL - REFER TO STRUCTURAL PLANS
  - ④ ABUTMENT WALL FOOTING LIMITS - REFER TO STRUCTURAL PLANS
  - ⑤ HIGH FORMAT OUTCROPPING WALL IN FRONT OF ABUTMENT WALLS - REFER TO SPECS
  - ⑥ HIGH FORMAT OUTCROPPING WING WALL - REFER TO SPECS
  - ⑦ APPROXIMATE OUTCROPPING WALL TOE OF SLOPE - REFER TO MANUFACTURER'S DETAILS AND SPECIFICATIONS
  - ⑧ 100-YEAR FLOODPLAIN ELEVATION - REFER TO BARR ENGINEERING PLANS
  - ⑨ ASPHALT WALKWAY - REFER TO LAYOUT PLAN AND CIVIL PLANS

**1** South Pedestrian Bridge  
L101 SCALE: 1/8" = 1'-0"

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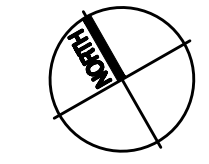
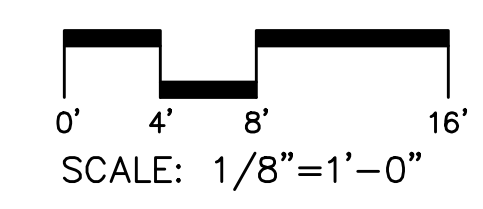
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Project:  
**The Downs  
River Park**  
Northville, MI

Sheet:  
**Site Details - South Pedestrian Bridge**

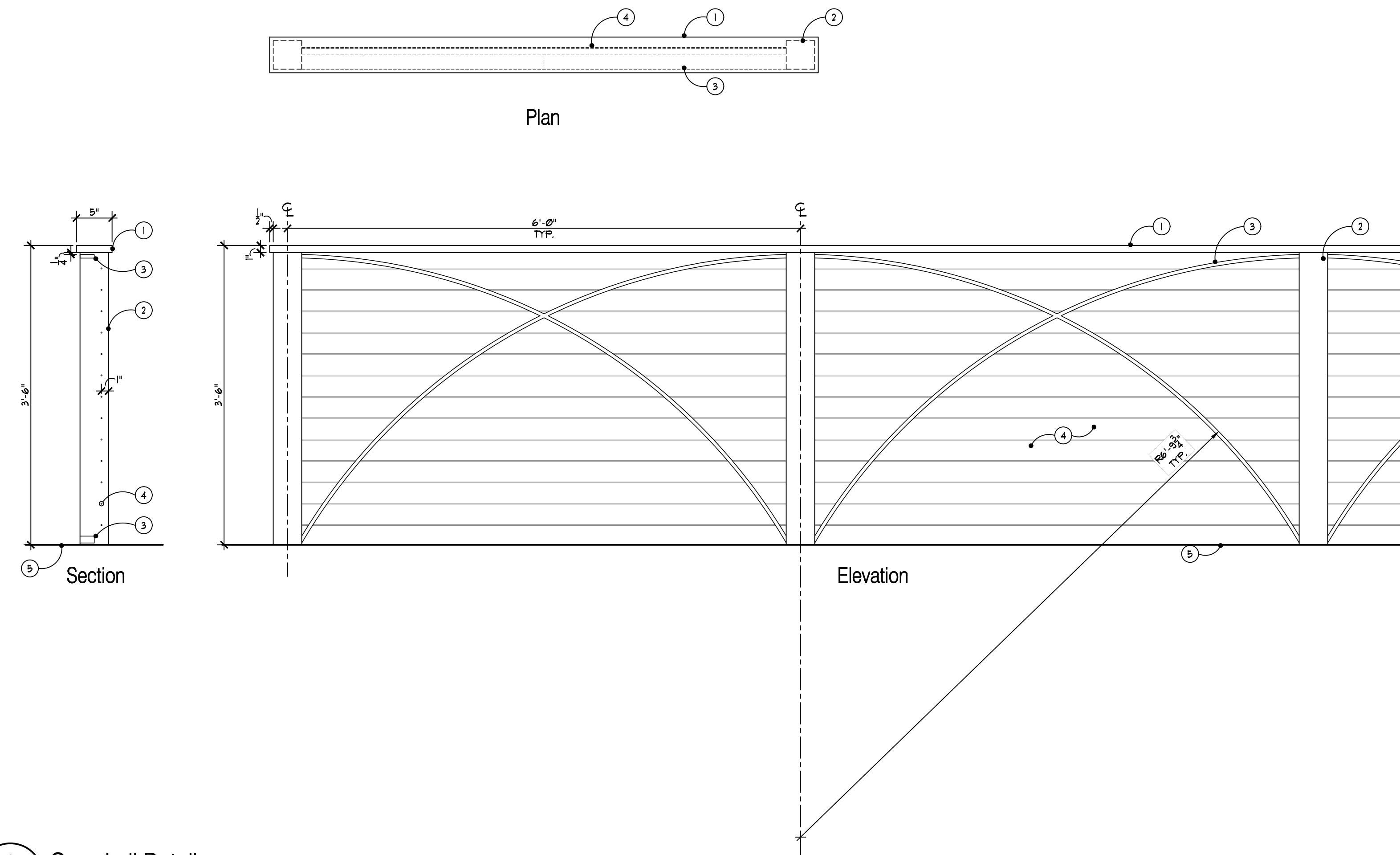
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Scale:

Date: **04.22.2024** Issued for: **Bids**



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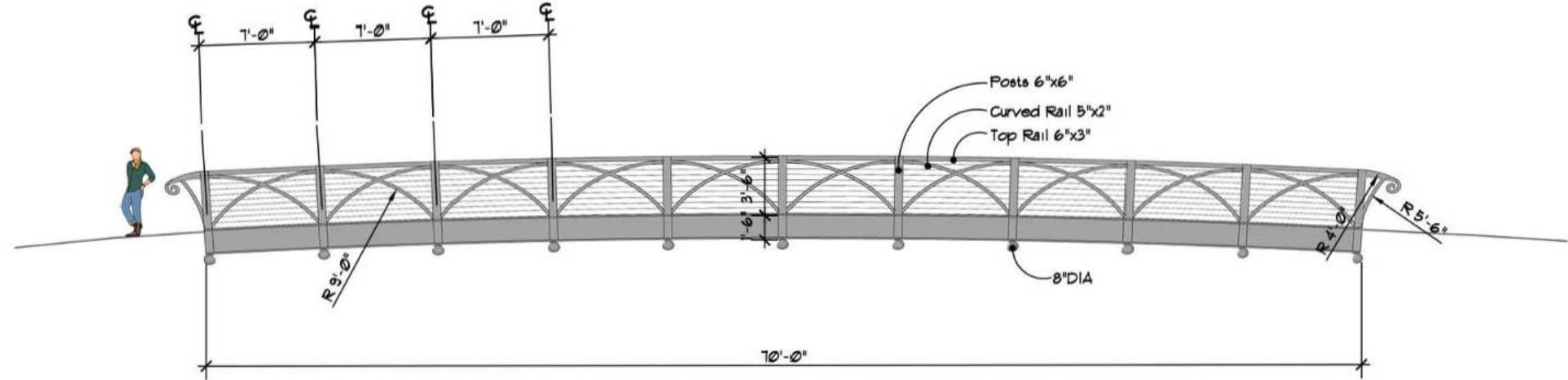


- ① 1" x 5" STEEL TOP RAIL
  - ② 4" x 4" STEEL TUBE POSTS WITH WELDED CLOSED TOP
  - ③ 3/8" x 2' STEEL BAR STOCK WELD TO POST
  - ④ 1/2" DIA STAINLESS STEEL CABLE INFILL
  - ⑤ RETAINING WALL TO BE PRECAST, POURED-IN-PLACE, OR SEGMENTAL PRECAST WALL SYSTEM - REFER TO PLANS
- GENERAL RAILING NOTES-
1. CONTRACTOR TO PROVIDE COMPLETE ENGINEERED SHOP DRAWINGS FOR FABRICATION AND INSTALLATION OF GUARDRAILS. REFER TO SPECS FOR STRUCTURAL PERFORMANCE OF GUARDRAIL SYSTEM.
  2. ALL STEEL COMPONENTS TO HAVE POWDER COAT FINISH. COLOR TO BE DETERMINED.
  3. ALL WELDS TO BE GRIND SMOOTH AND FLUSH.

2 Guardrail Detail  
SCALE: 1" = 1'-0"

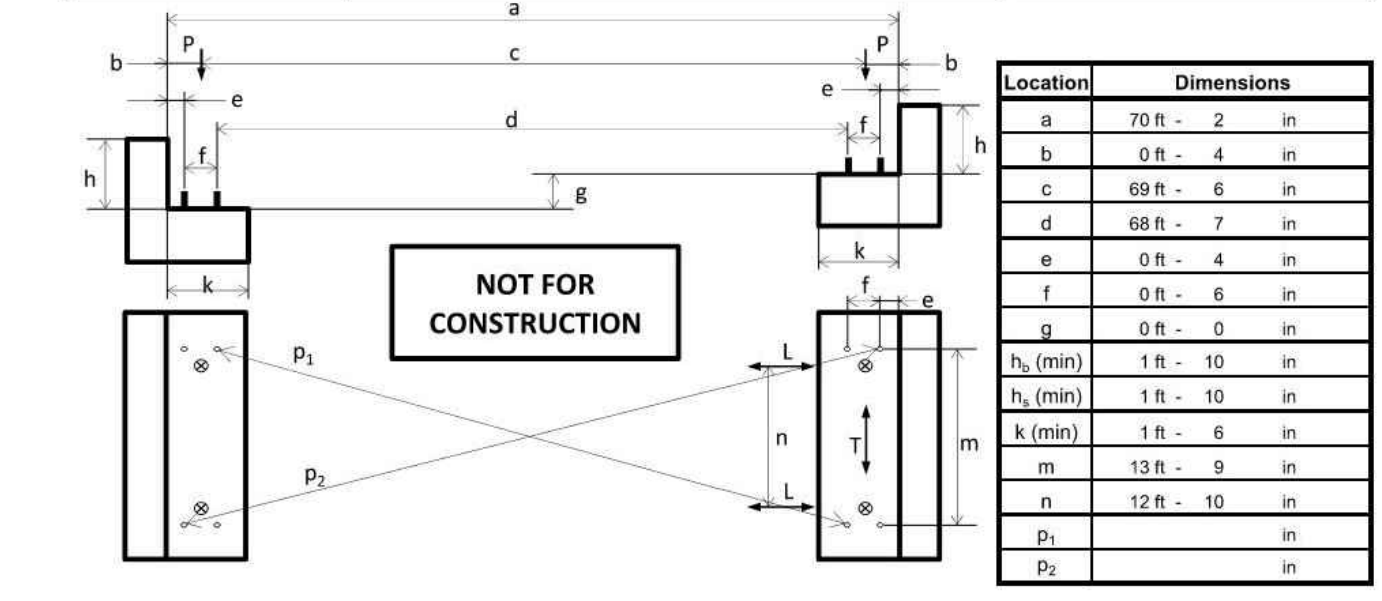
Contech Design Notes:

CONTINENTAL PREFABRICATED PEDESTRIAN BRIDGES (2 STRUCTURES)  
 LENGTH - 70'-0" LONG  
 WIDTH - 12'-0" WIDE  
 STYLE - CONNECTOR WITH CHAMBERED UNDERFLOOR BEAM (OPEN TRUSS)  
 TRUSS DESIGN - DECORATIVE ROLLED DIAGONAL WITH STAINLESS STEEL CABLING  
 DECORATIVE VICTORIAN CURL END TREATMENT & DECORATIVE BALL FINIALS,  
 ATTACHED/INSTALLED  
 FINISH - SELF WEATHERING STEEL  
 BRIDGE TO BE DESIGNED WITH A 3" NOMINAL TREATED TIMBER DECK, ATTACHED TO STRUCTURE  
 ANCHOR BOLTS FABRIC REINFORCED BEARING PADS WITH TEFLON & STAINLESS STEEL  
 SECTIONS 1 EACH  
 PICK WEIGHT ESTIMATE 31000 LBS EACH



1 Typical Bridge Detail  
SCALE: 1/8" = 1'-0"

	Project: Northville Downs Site	By: Engineer
	Job No.: 744954	Date: 9/22/2023
	Subject: PRELIMINARY ANCHOR BOLT LAYOUT & BEARING REACTIONS	Page: 1 of 1



Bearing Reactions	P (lb)	T (lb)	L <sub>y</sub> (lb)	L <sub>z</sub> (lb)
Dead (DC)	7800			
Dead (DW) (0 psf)	0			
Live (PL) (90 psf)	19400			
Vehicle (LL) (HS)	5700	7900		
Wind (WS) (115 mph)	±1900			
Overturning (WS <sub>ov</sub> ) (20 psf)	±200			
Overturning (WS <sub>sl</sub> ) (20 psf)	±200			
Stream (WA) (0 lbs)	±0			
Snow (SL) (0 psf)	0			
Thermal (TU) (15% of DL)			1200	
Seismic (EQ)	TBD	TBD		TBD

Total Lifting Weight of Bridge = 31000 lb

Seismic Loading Parameters:  
 Design Code: AASHTO Section 3.10  
 Site Class: TBD  
 PGA = TBD  
 S<sub>2</sub> = TBD  
 S<sub>1</sub> = TBD

Period of Bridge:  
 T<sub>tr</sub> (Transverse) = TBD sec  
 T<sub>l</sub> (Longitudinal) = TBD sec

Out to Out Length of Bridge = 70 ft - 1/2 in  
 Out to Out Width of Bridge = 13 ft - 11 9/16 in

Notes:  
 h<sub>1</sub> is Backwall height, h<sub>2</sub> is step height to TOD  
 P - Vertical Load each Bearing  
 T - Transverse Load each Abutment  
 L<sub>y</sub> - Longitudinal Thermal Load Each Bearing (4 Per Bridge)  
 L<sub>z</sub> - Longitudinal Seismic Load Each Fixed Bearing (2 Per Bridge)  
 WS<sub>ov</sub> - Overturning on Windward Truss  
 WS<sub>sl</sub> - Overturning on Leeward Truss  
 All Bearing Reactions are unfactored.  
 Seismic Bearing Reactions include an R of 1.0

Anchor Bolt Requirements:  
 Diameter = 1 in  
 Projection = 5.5 in  
 ASTM F1554 Gr. 105

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 Ph: 248-347-7010

Project: \_\_\_\_\_  
 The Downs  
 River Park  
 Northville, MI  
 Sheet: \_\_\_\_\_  
 Site Details

Job Number: H70-222  
 Drawn: TFW  
 Checked: RH

Date: 04.22.2024 Issued for: Bids

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Plant List - River Park

CODE	QTY.	DESCRIPTION	SIZE	COMMENTS
<b>Canopy Trees</b>				
AF 3	2	Acer rubrum 'Frankford' Red Sunset Maple	3" cal.	
AF 4	4	Acer rubrum 'Frankford' Red Sunset Maple	4" cal.	
AF 5	1	Acer rubrum 'Frankford' Red Sunset Maple	5" cal.	
AS 4	1	Acer saccharum 'Green Mountain' Green Mountain Sugar Maple	4" cal.	Specimen
AS 5	5	Acer saccharum 'Green Mountain' Green Mountain Sugar Maple	5" cal.	Specimen
CO 3	8	Celtis occidentalis Common Hackberry	3" cal.	
CO 4	1	Celtis occidentalis Common Hackberry	4" cal.	
PL 3	1	Platanus x acerifolia London Planetree	3" cal.	Specimen
PL 4	3	Platanus x acerifolia London Planetree	4" cal.	Specimen
PL 5	1	Platanus x acerifolia London Planetree	5" cal.	Specimen
QB 4	1	Quercus bicolor Swamp White Oak	4" cal.	
QB 5	1	Quercus bicolor Swamp White Oak	5" cal.	
QP 3	8	Quercus palustris Pin Oak	3" cal.	
QP 4	3	Quercus palustris Pin Oak	4" cal.	
QP 5	1	Quercus palustris Pin Oak	5" cal.	
QR 3	5	Quercus rubra Red Oak	3" cal.	
QR 4	8	Quercus rubra Red Oak	4" cal.	
QR 5	2	Quercus rubra Red Oak	5" cal.	
<b>Evergreen Trees</b>				
AB 12	7	Abies concolor Concolor Fir	12" ht.	Unsheared, full to ground
AB 14	3	Abies concolor Concolor Fir	14" ht.	Unsheared, full to ground
AB 16	2	Abies concolor Concolor Fir	16" ht.	Unsheared, full to ground
PA 12	5	Picea abies Norway Spruce	12" ht.	Unsheared, full to ground
PA 14	6	Picea abies Norway Spruce	14" ht.	Unsheared, full to ground
PA 16	7	Picea abies Norway Spruce	16" ht.	Unsheared, full to ground
PG 12	4	Picea glauca 'Densata' Black Hills Spruce	12" ht.	Unsheared, full to ground
PG 14	11	Picea glauca 'Densata' Black Hills Spruce	14" ht.	Unsheared, full to ground
PG 16	16	Picea glauca 'Densata' Black Hills Spruce	16" ht.	Unsheared, full to ground
PO 12	15	Picea omorika Serbian Spruce	12" ht.	Unsheared, full to ground
PO 14	12	Picea omorika Serbian Spruce	14" ht.	Unsheared, full to ground
PO 16	7	Picea omorika Serbian Spruce	16" ht.	Unsheared, full to ground
<b>Ornamental Trees</b>				
CC 2	1	Cercis canadensis Redbud	2" cal.	Single stem, Specimen
CC 3	4	Cercis canadensis Redbud	3" cal.	Single stem, Specimen
CF 3	3	Cornus florida Flowering Dogwood	3" cal.	Single stem, Specimen
ML 10	3	Magnolia x bobneri 'Leonard Messel' Leonard Messel Magnolia	10" ht.	Tree form, specimen 3-5 trunk min.
ML 14	3	Magnolia x bobneri 'Leonard Messel' Leonard Messel Magnolia	14" ht.	Tree form, specimen 3-5 trunk min.
<b>Shrubs, Groundcovers, Vines and Perennials</b>				
PE	481	Perovskia atriplicifolia 'Little Spire' Little Spire Russian Sage	1 gal.	plant 18" o.c.
RA	145	Rhus aromatica 'Gro-Low' Gro-Low Fragrant Sumac	3 gal.	plant 36" o.c.



Plant List - River Corridor

CODE	QTY.	DESCRIPTION	SIZE	COMMENTS
<b>Canopy Trees</b>				
AF 3	2	Acer rubrum 'Frankford' Red Sunset Maple	3" cal.	
<b>Ornamental Trees</b>				
BN 8	17	Betula nigra 'Heritage' Heritage River Birch	8" ht.	Specimen
BN 10	8	Betula nigra 'Heritage' Heritage River Birch	10" ht.	Specimen
BN 12	3	Betula nigra 'Heritage' Heritage River Birch	12" ht.	Specimen
CC 2	8	Cercis canadensis Redbud	2" cal.	Single stem, Specimen
CC 3	11	Cercis canadensis Redbud	3" cal.	Single stem, Specimen
CF 2	2	Cornus florida Flowering Dogwood	2" cal.	Single stem, Specimen
CF 3	7	Cornus florida Flowering Dogwood	3" cal.	Single stem, Specimen

Legend:

- PROPERTY LINE, TYP.
- RIVER PARK LIMIT OF WORK
- RIVER CHANNEL LANDSCAPE ZONE - REFER TO BARR ENGINEERING PLANS
- EXISTING UTILITY LINES, TYP.
- PROPOSED UTILITY LINES, TYP.
- PROPOSED EASEMENT, TYP.
- EXISTING LIGHT POLE LOCATION TO REMAIN
- EXISTING SIGN - REFER TO CIVIL PLANS
- NEW WATFINDING SIGN - REFER TO WATFINDING SIGNAGE PLAN
- NEW PEDESTRIAN LIGHT POLE - REFER TO LAYOUT PLAN
- TRASH RECEPTACLE - REFER TO LAYOUT PLAN
- BENCH - REFER TO LAYOUT PLAN
- BIKE RACK - REFER TO LAYOUT PLAN
- DOG WASTE STATION - REFER TO LAYOUT PLAN
- DRINKING FOUNTAIN - REFER TO LAYOUT PLAN
- BIKE REPAIR STATION - REFER TO LAYOUT PLAN

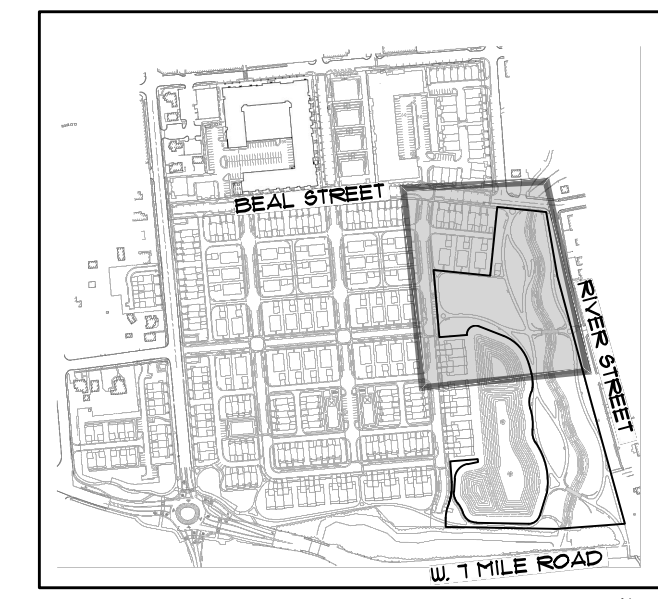
- TREE UPLIGHT (QTY. || TOTAL)  
PRODUCT - ACCENT DIV LED UPLIGHT WITH MOUNTING STAKE AND 6' LEAD WIRE  
PRODUCT NO. 8011-3088B  
ORDER TRANSFORMER AS REQUIRED  
PRODUCT NO. 8180-TRN-88 (150W MAX.)  
COLOR - BRONZE ON BRASS  
MANUF. - WAC LANDSCAPE LIGHTING  
PHONE - 800-576-7588  
WEBSITE - WACLANDSCAPELIGHTING.COM
- PLANT CODE, REFER TO PLANT LIST  
QTY. REFER TO PLANT LIST FOR CUMULATIVE TOTALS
- REPLACEMENT TREE PER ORDINANCE REQUIREMENTS, TYP. - SUBSTITUTIONS REQUIRE APPROVAL FROM CITY
- SEEDED LAWN ON 4" TOPSOIL, TYP. - REFER TO SPECS
- RESTORATION AREA IN ROW TO BE SEEDED LAWN ON 4" TOPSOIL, TYP. - REFER TO SPECS
- MEADOW LAWN, TYP. - REFER TO SPECS
- LITTLE BLUESTEM 'THE BLUES' TO BE PLUGS SPACED 12" O.C. ON 8" LOAMY SAND TOPSOIL, TYP. - REFER TO PLANT LIST AND SPECS
- LITTLE BLUESTEM (STRAIGHT VARIETY) TO BE PLUGS SPACED 12" O.C. ON 8" LOAMY SAND TOPSOIL, TYP. - REFER TO PLANT LIST AND SPECS
- DECIDUOUS TREE ZONES, TYP. - DENSELY PLANTED AREAS WITH DIFFERENT SPECIES AND CALIBER SIZE TREES - REFER TO L400 FOR QUANTITY LISTS AND MATERIAL PALETTE

Note Key:

- JOHNSON DRAIN AND EXISTING WOODED AREA, TYP.
- BEDLINE, TYP.
- LIMIT OF SEED MIX, TYP.
- 10' WIDE ASPHALT PATHWAY, TYP.
- EASEMENT LINE - REFER TO CIVIL PLANS
- EXISTING TREES TO REMAIN AND BE PRUNED, TYP.
- MIDDLE RIVER - REFER TO BARR ENGINEERING PLANS FOR ALL ADDITIONAL RIVER BANK STABILIZATION AND LANDSCAPE (GMA DRAWINGS SHOW BALLED AND BURLAP TREES ONLY)
- SPILLWAY - REFER TO CIVIL PLANS
- MULCH BED UNDER MASS EVERGREEN PLANTINGS
- IRRIGATION CONTROLLER, TYP. - REFER TO IRRIGATION PLANS
- RIVER ACCESS PATH WITH OUTCROPPINGS - REFER TO LAYOUT PLANS

Note:

REFER TO LANDSCAPE DETAILS SHEET FOR TREE ZONE SPECIES COMPOSITION LIST AND GENERAL LANDSCAPE NOTES



Key Map  
Scale: Not to Scale

**GRISSIM METZ ANDRIESE** ASSOCIATES  
Landscape Architecture

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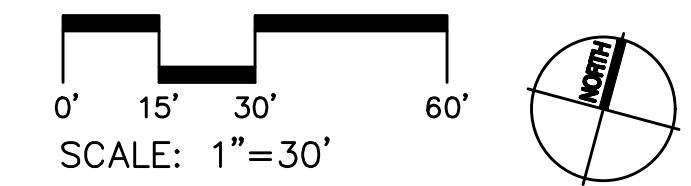
Project:  
**The Downs**  
River Park  
Northville, MI

Sheet:  
**Landscape Plan**

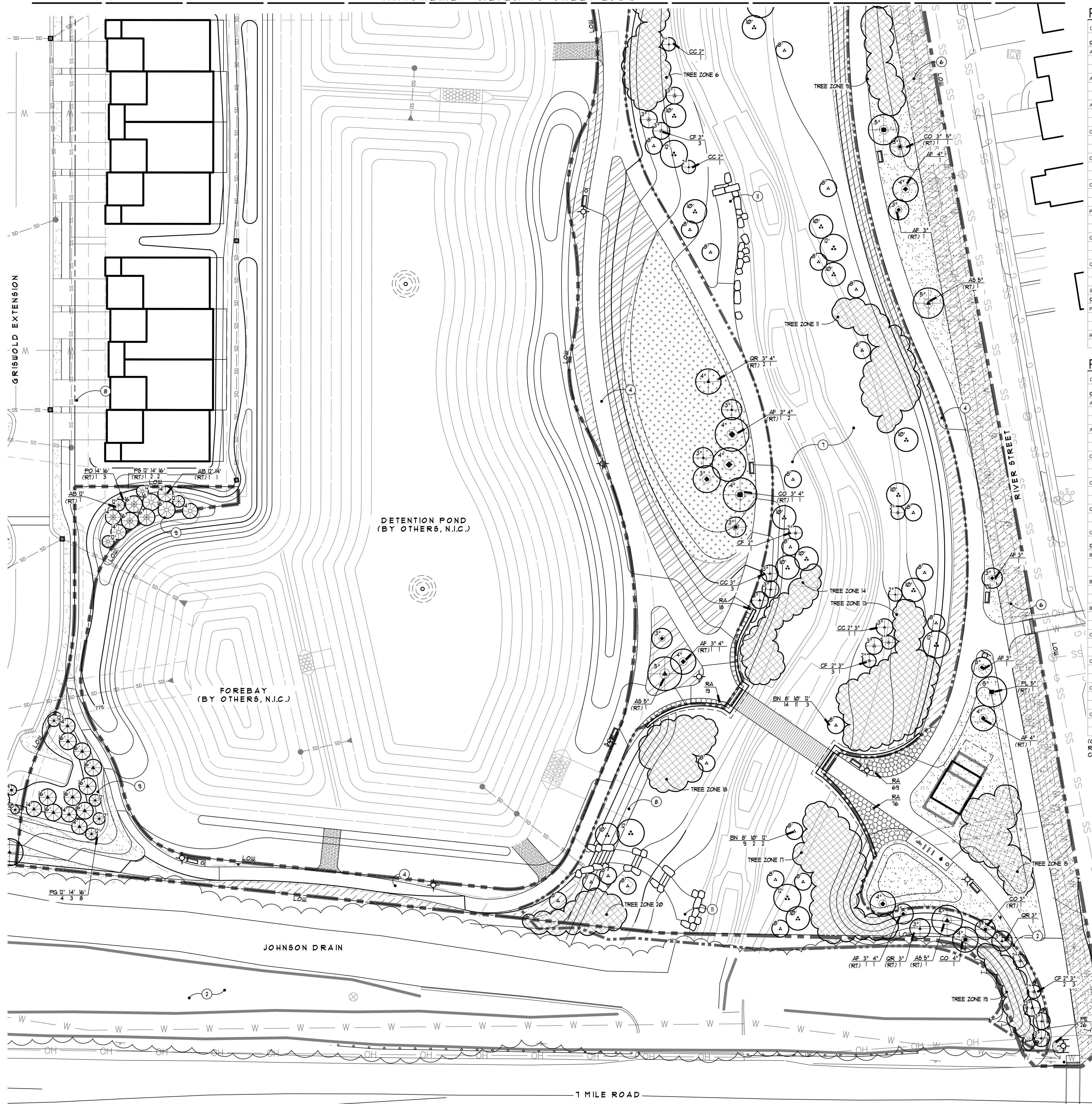
Job Number: H70-222  
Drawn: TFW  
Checked: RH

Date: 04.22.2024 Issued for: Bids

Sheet Number:  
**L300**  
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**Plant List - River Park**

Canopy Trees				
CODE	QTY.	DESCRIPTION	SIZE	COMMENTS
AF 3	5	Acer rubrum 'Frankford' Red Sunset Maple	3" cal	
AF 4	5	Acer rubrum 'Frankford' Red Sunset Maple	4" cal	
AS 5	1	Acer saccharum 'Green Mountain' Green Mountain Sugar Maple	5" cal	Specimen
CO 3	2	Celtis occidentalis Common Hackberry	3" cal.	
CO 4	1	Celtis occidentalis Common Hackberry	4" cal.	
CO 5	1	Celtis occidentalis Common Hackberry	5" cal.	
PL 5	1	Platanus x acerifolia London Planetree	5" cal.	
QR 3	2	Quercus rubra Red Oak	3" cal	
QR 4	1	Quercus rubra Red Oak	4" cal	
Shrubs, Groundcovers, Vines and Perennials				
CODE	QTY.	DESCRIPTION	SIZE	COMMENTS
PE	26	Pterovka atriplicifolia 'Little Spire' Little Spire Russian Sage	1 gal.	plant 18" o.c.
RA	182	Rhus aromatica 'Gro-Low' Gro-Low Fragrant Sumac	3 gal.	plant 36" o.c.

**Plant List - River Corridor**

Canopy Trees				
CODE	QTY.	DESCRIPTION	SIZE	COMMENTS
AF 3	1	Acer rubrum 'Frankford' Red Sunset Maple	3" cal	
AS 5	1	Acer saccharum 'Green Mountain' Green Mountain Sugar Maple	5" cal	Specimen
CO 3	1	Celtis occidentalis Common Hackberry	3" cal.	
CO 4	1	Celtis occidentalis Common Hackberry	4" cal.	
QR 3	2	Quercus rubra Red Oak	3" cal	
Ornamental Trees				
CODE	QTY.	DESCRIPTION	SIZE	COMMENTS
BN 8	23	Betula nigra 'Heritage' Heritage River Birch	8' ht.	Specimen
BN 10	13	Betula nigra 'Heritage' Heritage River Birch	10' ht.	Specimen
BN 12	5	Betula nigra 'Heritage' Heritage River Birch	12' ht.	Specimen
CC 2	3	Cercis canadensis Redbud	2" cal.	Single stem, Specimen
CC 3	7	Cercis canadensis Redbud	3" cal.	Single stem, Specimen
CF 2	6	Cornus florida Flowering Dogwood	2" cal.	Single stem, Specimen
CF 3	4	Cornus florida Flowering Dogwood	3" cal.	Single stem, Specimen

(ONLY BALLED AND BURLAP TREES SHOWN FOR RIVER CORRIDOR - REFER TO BARR ENGINEERING DRAWINGS FOR ALL OTHER RIVER CORRIDOR LANDSCAPE)

**Legend:** (APPLIES TO L400-L401, NOT ALL GRAPHICS APPLY TO EACH SHEET)

- PROPERTY LINE, TYP.
- LOW RIVER PARK LIMIT OF WORK
- BARR CHANNEL LANDSCAPE ZONE - REFER TO BARR ENGINEERING PLANS
- SS SS EXISTING UTILITY LINES, TYP.
- W W W PROPOSED UTILITY LINES, TYP.
- PROPOSED EASEMENT, TYP.
- ☼ EXISTING LIGHT POLE LOCATION TO REMAIN
- EXISTING SIGN - REFER TO CIVIL PLANS
- NEW WAYFINDING SIGN - REFER TO WAYFINDING SIGNAGE PLAN
- NEW PEDESTRIAN LIGHT POLE - REFER TO LAYOUT PLAN
- TRASH RECEPTACLE - REFER TO LAYOUT PLAN
- BENCH - REFER TO LAYOUT PLAN
- BIKE RACK - REFER TO LAYOUT PLAN
- DOG WASTE STATION - REFER TO LAYOUT PLAN
- DRINKING FOUNTAIN - REFER TO LAYOUT PLAN
- BIKE REPAIR STATION - REFER TO LAYOUT PLAN
- TREE UPLIGHT (QTY. II TOTAL)  
PRODUCT - ACCENT BY LED UPLIGHT WITH POINTING STAKE AND 6' LEAD WIRE  
PRODUCT NO. 5011-30BBR  
ORDER TRANSFORMER AS REQUIRED  
PRODUCT NO. 3160-TRN-SS (150W MAX.)  
COLOR - BRONZE ON BRASS  
MANUF. - WAC LANDSCAPE LIGHTING  
PHONE - 800-576-7588  
WEBSITE - WACLANDSCAPELIGHTING.COM
- AA PLANT CODE REFER TO PLANT LIST  
QTY. REFER TO PLANT LIST FOR CUMULATIVE TOTALS
- (RT) REPLACEMENT TREE PER ORDINANCE REQUIREMENTS, TYP. - SUBSTITUTIONS REQUIRE APPROVAL FROM CITY
- SEEDING LAIN ON 4" TOPSOIL, TYP. - REFER TO SPECS
- RESTORATION AREA IN ROW TO BE SEEDING LAIN ON 4" TOPSOIL, TYP. - REFER TO SPECS
- MEADOW LAIN, TYP. - REFER TO SPECS
- LITTLE BLUESTEM 'THE BLUES' TO BE PLUGS SPACED 12" O.C. ON 8" LOAMY SAND TOPSOIL, TYP. - REFER TO PLANT LIST AND SPECS
- LITTLE BLUESTEM (STRAIGHT VARIETY) TO BE PLUGS SPACED 12" O.C. ON 8" LOAMY SAND TOPSOIL, TYP. - REFER TO PLANT LIST AND SPECS
- DECIDUOUS TREE ZONES, TYP. - DENSELY PLANTED AREAS WITH DIFFERENT SPECIES AND CALIBER SIZE TREES - REFER TO L400 FOR QUANTITY LISTS AND MATERIAL PALETTE

**Note Key:** (APPLIES TO L300-L301, NOT ALL NOTES APPLY TO EACH SHEET)

- 1 JOHNSON DRAIN AND EXISTING WOODED AREA, TYP.
- 2 BEDLINE, TYP.
- 3 LIMIT OF SEED MIX, TYP.
- 4 10' WIDE ASPHALT PATHWAY, TYP.
- 5 EASEMENT LINE - REFER TO CIVIL PLANS
- 6 EXISTING TREES TO REMAIN AND BE PRUNED, TYP.
- 7 MIDDLE ROUGE RIVER - REFER TO BARR ENGINEERING PLANS FOR ALL ADDITIONAL RIVER BANK STABILIZATION AND LANDSCAPE (GMA DRAWINGS SHOW BALLED AND BURLAP TREES ONLY)
- 8 SPILLWAY - REFER TO CIVIL PLANS
- 9 MULCH BED UNDER MASS EVERGREEN PLANTINGS
- 10 IRRIGATION CONTROLLER, TYP. - REFER TO IRRIGATION PLANS
- 11 RIVER ACCESS PATH WITH OUTCROPPINGS - REFER TO LAYOUT PLANS

**Note:**

REFER TO LANDSCAPE DETAILS SHEET FOR TREE ZONE SPECIES COMPOSITION LIST AND GENERAL LANDSCAPE NOTES



**Key Map**  
Scale: Not to Scale

**GRISSIM METZ ASSOCIATES ANDRIESE**

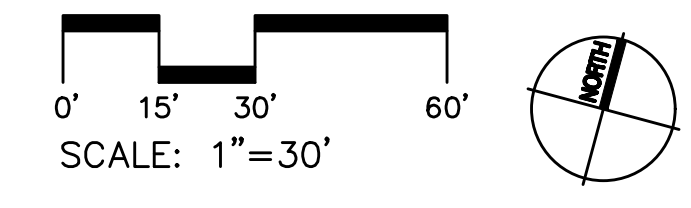
Landscape Architecture  
15000 Edwards N. Hines Dr., Suite A  
Plymouth, MI 48170  
Ph: 248-347-7010

Project:  
**The Downs**  
**River Park**  
Northville, MI

Sheet:  
**Landscape Plan**

Job Number: **H70-222**  
Drawn: **TFW**  
Checked: **RH**  
Scale:

Date: **04.22.2024** Issued for: **Bids**



NOT FOR CONSTRUCTION

**Deciduous Tree Zones Plant Palette and Quantities:**

**DECIDUOUS TREE ZONE SPECIES**  
 DISPERSE TREE QUANTITIES EQUALLY AMONGST THE FOLLOWING TREE SPECIES. NOTE ALL SPECIES MAY NOT BE USED DEPENDING ON AVAILABILITY. REFER TO LIST BELOW FOR DECIDUOUS TREE ZONES TREE QUANTITIES AND CALIPER SIZES.  
 ALL TREE SPECIES AND FINAL SELECTIONS ARE SUBJECT TO AVAILABILITY AT THE TIME OF INSTALLATION. NO INVASIVE SPECIES OR CULTIVARS OF INVASIVE SPECIES SHALL BE USED.

- DECIDUOUS TREE ZONE PLANT PALETTE -**
- SUGAR MAPLE (*Acer saccharum*)
  - RED MAPLE (*Acer rubrum*)
  - HACKBERRY (*Celastrus occidentalis*)
  - KENTUCKY COFFEE TREE (*Gymnocladia dioica*)
  - LONDON PLANETREE (*Platanus x acerifolia*)
  - SWAMP WHITE OAK (*Quercus bicolor*)
  - BUR OAK (*Quercus macrocarpa*)
  - PIN OAK (*Quercus palustris*)
  - RED OAK (*Quercus rubra*)
  - BASSWOOD (*Tilia americana*)
  - MUSCLEWOOD (*Carpinus caroliniana*)
  - HERITAGE RIVER BIRCH (*Betula nigra*)
  - TULIP TREE (*Liriodendron tulipifera*)
  - SHINGLE OAK (*Quercus imbricaria*)
  - SHAGBARK HICKORY (*Carya ovata*)
  - BLACK WALNUT (*Juglans nigra*)

- TREE ZONES DIVIDED BY CALIPER SIZE AS FOLLOWS -**
- 30% (1" - 1 1/2" CALIPER)
  - 20% (2" CALIPER)
  - 25% (3" CALIPER)
  - 20% (4" CALIPER)
  - 5% (5" CALIPER)

- TOTAL TREE QUANTITIES FOR DECIDUOUS TREE ZONES -**
- 1024 TOTAL TREES
  - 356 (1" - 1 1/2" CALIPER)
  - 243 (2" CALIPER)
  - 302 (3" CALIPER)
  - 243 (4" CALIPER)
  - 60 (5" CALIPER)

**River Park Deciduous Tree Zones Plant Quantities:**

- TREE ZONE 19 - 20 TOTAL TREES**
- 6 (1" - 1 1/2" CALIPER)
  - 4 (2" CALIPER)
  - 5 (3" CALIPER)
  - 4 (4" CALIPER)
  - 1 (5" CALIPER)

- TREE ZONE 18 - 15 TOTAL TREES**
- 9 (1" - 1 1/2" CALIPER)
  - 5 (2" CALIPER)
  - 6 (3" CALIPER)
  - 5 (4" CALIPER)
  - 1 (5" CALIPER)

- TREE ZONE 17 - 33 TOTAL TREES**
- 9 (1" - 1 1/2" CALIPER)
  - 1 (2" CALIPER)
  - 8 (3" CALIPER)
  - 1 (4" CALIPER)
  - 2 (5" CALIPER)

- TREE ZONE 16 - 55 TOTAL TREES**
- 16 (1" - 1 1/2" CALIPER)
  - 11 (2" CALIPER)
  - 14 (3" CALIPER)
  - 11 (4" CALIPER)
  - 3 (5" CALIPER)

**General Landscape Notes:**

- ALL PLANTS SHALL COME FROM ZONES 3-6A OF THE USDA HARDINESS ZONE MAP UNLESS APPROVED BY THE LANDSCAPE ARCHITECT.
- ALL TREES SHALL HAVE ROOT BALLS AND BRANCHING STRUCTURE COMPLYING WITH THE LATEST EDITION OF THE 'AMERICAN STANDARD FOR NURSERY STOCK'.
- TOPSOIL SHALL HAVE A PH RANGE OF 5.0-7.5. ORGANIC MATTER SHALL RANGE BETWEEN 3 AND 10 PERCENT. TOPSOIL TO BE FREE OF NOXIOUS SEEDS, WEEDS OR OTHER FOREIGN MATERIAL.
- USE OF FERTILIZERS SHALL BE CONTAINED TO THE TURFGRASS, TREES AND SHRUBS. FERTILIZER SHALL NOT BE USED ON THE LANDSCAPE ELEMENTS WITHIN PROXIMITY TO A NATURAL WATERCOURSE OR BODY OF WATER. THIS INCLUDES THE SIDE SLOPES OF THE NATURALIZED STORMWATER POND AND THE BANKS OF THE MIDDLE ROUGE RIVER.
- TURFGRASS SHALL BE A BLEND OF IMPROVED KENTUCKY BLUEGRASS VARIETIES AS APPROVED BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE.
- ALL NATIVE SEED MIXES SHALL BE PROVIDED FROM A SUPPLIER USING LOCAL GENOTYPES.
- NATIVE SEED INSTALLATION, BED PREPARATION, AND INVASIVE SPECIES CONTROL SHALL BE PERFORMED BY A CONTRACTOR WITH A DOCUMENTED HISTORY OF SUCCESSFULLY ESTABLISHED NATIVE SEEDING AND INVASIVE SPECIES CONTROL.
- NATIVE SEED MIXES SHALL BE MAINTAINED BY A CONTRACTOR WITH A DOCUMENTED HISTORY OF MAINTAINING LANDSCAPE AREAS VEGETATED WITH NATIVE SEED MIXES.
- NATIVE SEED MIXES SHALL CARRY A WARRANTY OF THREE (3) YEARS FROM THE TIME OF SUBSTANTIAL COMPLETION AS DETERMINED BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE.
- ALL OTHER PLANT MATERIAL SHALL CARRY A WARRANTY OF ONE (1) YEAR FROM THE TIME OF SUBSTANTIAL COMPLETION AS DETERMINED BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE.
- CONTRACTOR SHALL AT THEIR OWN COST PROVIDE ONE (1) REPLACEMENT PLANT (DURING THE WARRANTY PERIOD) FOR ALL CONTAINER GROWN AND/OR BALLED AND BURLAPPED PLANTS IF SAID PLANT FAILS TO BECOME FULLY ESTABLISHED AS DETERMINED BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE.
- NO INVASIVE PLANT SPECIES WILL BE ALLOWED.
- ONLY LOCAL GENOTYPE/MICHIGAN SOURCED SEED MIXES WILL BE ALLOWED.

**River Channel Deciduous Tree Zones Plant Quantities:**

- TREE ZONE 14 - 68 TOTAL TREES**
- 30 (1" - 1 1/2" CALIPER)
  - 14 (2" CALIPER)
  - 11 (3" CALIPER)
  - 14 (4" CALIPER)
  - 5 (5" CALIPER)

- TREE ZONE 13 - 14 TOTAL TREES**
- 3 (1" - 1 1/2" CALIPER)
  - 5 (2" CALIPER)
  - 10 (3" CALIPER)
  - 15 (4" CALIPER)
  - 4 (5" CALIPER)

- TREE ZONE 12 - 56 TOTAL TREES**
- 11 (1" - 1 1/2" CALIPER)
  - 1 (2" CALIPER)
  - 14 (3" CALIPER)
  - 11 (4" CALIPER)
  - 3 (5" CALIPER)

- TREE ZONE 11 - 78 TOTAL TREES**
- 33 (1" - 1 1/2" CALIPER)
  - 16 (2" CALIPER)
  - 20 (3" CALIPER)
  - 16 (4" CALIPER)
  - 4 (5" CALIPER)

- TREE ZONE 10 - 124 TOTAL TREES**
- 31 (1" - 1 1/2" CALIPER)
  - 29 (2" CALIPER)
  - 31 (3" CALIPER)
  - 35 (4" CALIPER)
  - 6 (5" CALIPER)

- TREE ZONE 9 - 95 TOTAL TREES**
- 38 (1" - 1 1/2" CALIPER)
  - 19 (2" CALIPER)
  - 24 (3" CALIPER)
  - 19 (4" CALIPER)
  - 5 (5" CALIPER)

- TREE ZONE 8 - 66 TOTAL TREES**
- 30 (1" - 1 1/2" CALIPER)
  - 13 (2" CALIPER)
  - 11 (3" CALIPER)
  - 13 (4" CALIPER)
  - 3 (5" CALIPER)

- TREE ZONE 7 - 96 TOTAL TREES**
- 29 (1" - 1 1/2" CALIPER)
  - 19 (2" CALIPER)
  - 24 (3" CALIPER)
  - 19 (4" CALIPER)
  - 5 (5" CALIPER)

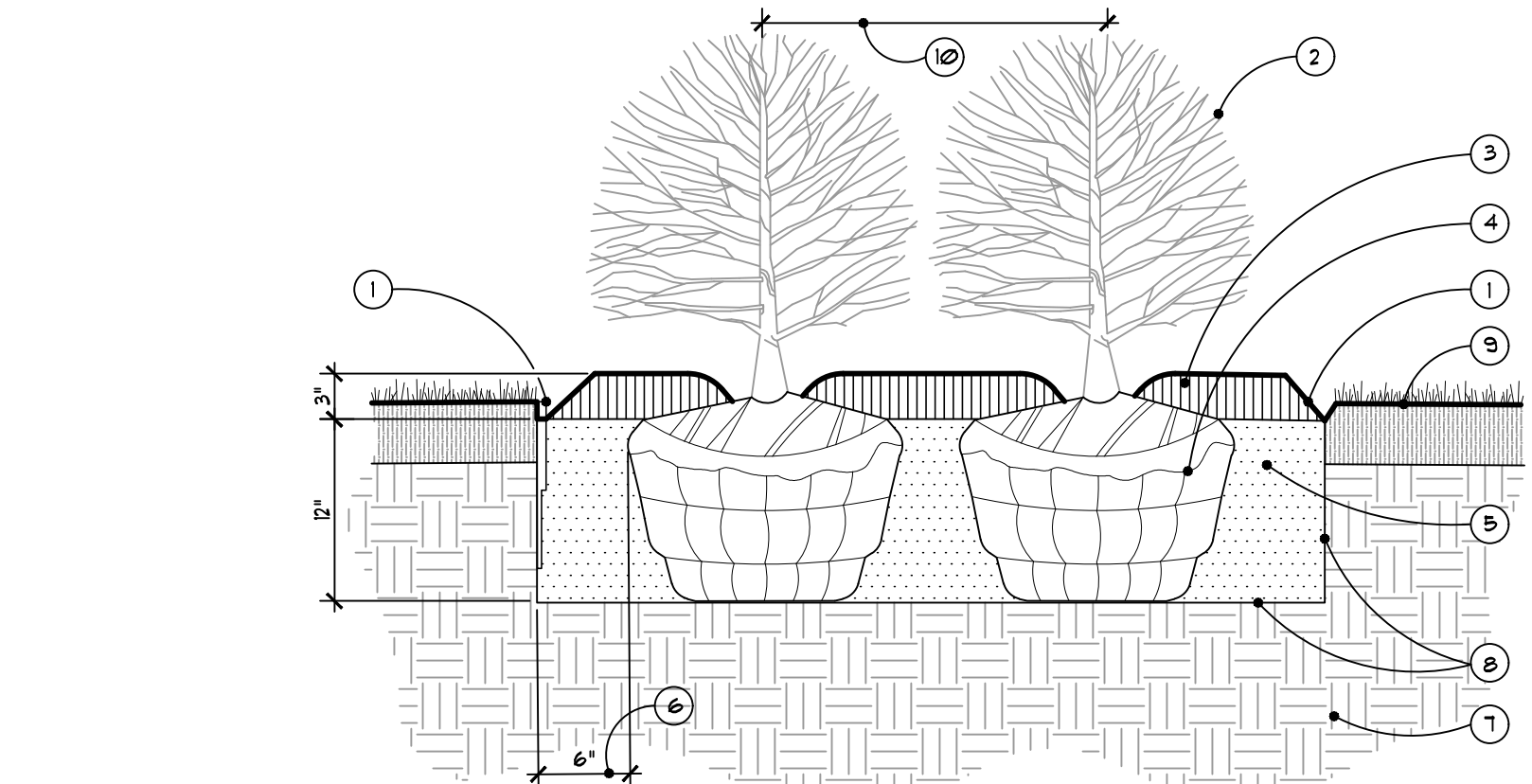
- TREE ZONE 6 - 14 TOTAL TREES**
- 9 (1" - 1 1/2" CALIPER)
  - 8 (2" CALIPER)
  - 3 (3" CALIPER)
  - 2 (5" CALIPER)

- TREE ZONE 5 - 88 TOTAL TREES**
- 39 (1" - 1 1/2" CALIPER)
  - 18 (2" CALIPER)
  - 14 (3" CALIPER)
  - 19 (4" CALIPER)
  - 4 (5" CALIPER)

- TREE ZONE 4 - 48 TOTAL TREES**
- 14 (1" - 1 1/2" CALIPER)
  - 10 (2" CALIPER)
  - 2 (3" CALIPER)
  - 10 (4" CALIPER)
  - 2 (5" CALIPER)

- TREE ZONE 3 - 78 TOTAL TREES**
- 8 (1" - 1 1/2" CALIPER)
  - 6 (2" CALIPER)
  - 7 (3" CALIPER)
  - 6 (4" CALIPER)
  - 1 (5" CALIPER)

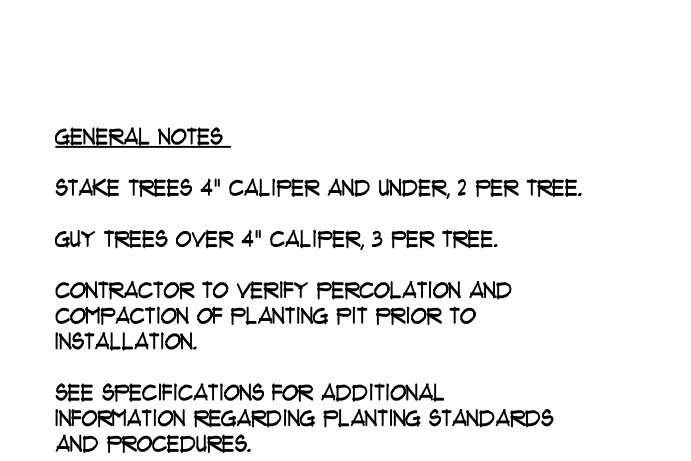
- TREE ZONE 2 - 33 TOTAL TREES**
- 9 (1" - 1 1/2" CALIPER)
  - 1 (2" CALIPER)
  - 6 (3" CALIPER)
  - 1 (4" CALIPER)
  - 2 (5" CALIPER)



**3 Typical Shrub Planting Detail**  
 SCALE: 1" = 1'-0"

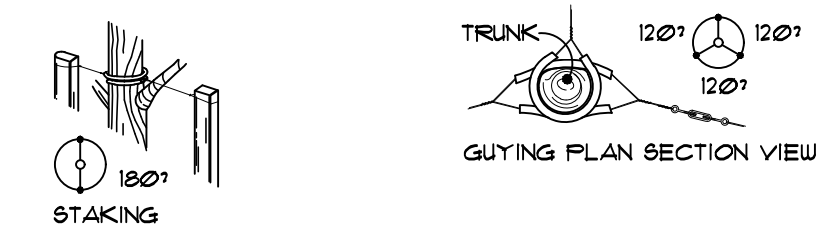
- NOTE**  
 1. CONTRACTOR TO VERIFY PERCOLATION OF PLANTING PIT PRIOR TO INSTALLATION AND PROVIDE RESULTS TO LANDSCAPE ARCHITECT FOR APPROVAL.
- SHOVEL CUT EDGE OR METAL EDGING, SEE PLANS AND SPECS
  - SHRUB PLANTS
  - DOUBLE PROCESSED SHREDDED BARK MULCH 3" DEPTH TYPICAL. DO NOT PLACE MULCH UP AGAINST TRUNK
  - REMOVE BURLAP & CUT TUINE FROM TOP 1/3 OF BALL
  - HASS EXCAVATE PLANT BED TO 12" DEPTH AND BACKFILL WITH APPROVED PLANT MIX AND FERTILIZER
  - 6" MIN BETWEEN ROOTBALL AND EDGE OF PLANT PIT
  - UNDISTURBED SUBGRADE
  - SCARIFY BOTTOM AND SIDES OF PLANT BED
  - 4" TOPSOIL AND LAWN REFER TO PLANS AND SPECS
  - SEE PLAN FOR SPACING

**2 Evergreen Tree Planting Detail**  
 NOT TO SCALE

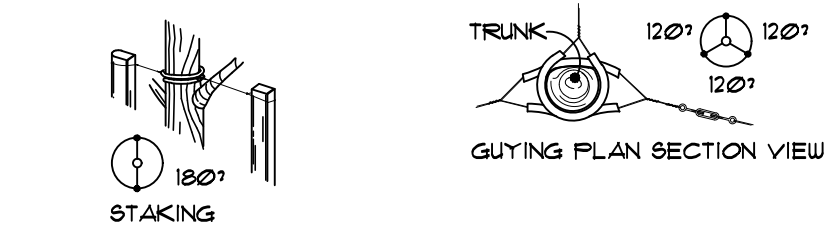


- GENERAL NOTES**  
 STAKE TREES 4" CALIPER AND UNDER, 2 PER TREE.  
 GUY TREES OVER 4" CALIPER, 3 PER TREE.  
 CONTRACTOR TO VERIFY PERCOLATION AND COMPACTION OF PLANTING PIT PRIOR TO INSTALLATION.  
 SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION REGARDING PLANTING STANDARDS AND PROCEDURES.
- SHOVEL CUT EDGE OR EDGING AROUND TREE, TYP. - REFER TO PLANS
  - POLYPROPYLENE GUYING FABRIC, LOCATE ABOVE FIRST BRANCH, TYP. - REFER TO SPECS
  - 2" x 2" x 12" LONG UNTREATED HARDWOOD STAKES, STAKES TO EXTEND 18" BELOW TREE PIT IN UNDISTURBED SOIL, SET VERTICALLY PLUMB AND EVENLY SPACED, TYP.
  - INSTALL TREE WRAP FOR THIN SKINNED TREES, REMOVE AFTER FIRST YEAR, TYP. - REFER TO SPECS
  - ROOT FLARE - (AREA OF RAPID TAPER), REMOVE ALL SOILS ABOVE THIS LINE AND SET BOTTOM OF ROOT FLARE FLUSH TO ADJACENT FINISH GRADE - ROOT FLARE SHOULD NOT HAVE MULCH OVER TOP OF IT AND SHOULD REMAIN VISIBLE AT THE COMPLETION OF PLANTING, TYP.
  - BACKFILL WITH FULVERIZED EXCAVATED NATIVE SOIL UNTIL 1/3 OF THE TREE PIT IS FILLED, HAND COMPACT BY FOOT OR TAMPER TO STABILIZE AND PLUMB TREE - REFER TO SPECS
  - 12" MINIMUM BETWEEN ROOT BALL AND EDGE OF PLANT PIT, CUT PIT SIDES @ 60° ANGLE, TYP.
  - ADJACENT FINISH GRADE - ENSURE BOTTOM OF ROOT FLARE IS SET FLUSH TO THIS ELEVATION, TYP.
  - CUT AND REMOVE BURLAP TO 6" BELOW GRADE OR 1/3 OF THE ROOT BALL WHICHEVER IS GREATER AND REMOVE TUINE FROM ROOT FLARE, IF PRESENT CUT WIRE BASKET AND REMOVE 6"-8" BELOW GRADE, DISPOSE OF LEGALLY NOT IN PIT, TYP.
  - 3" DEPTH DOUBLE PROCESSED SHREDDED BARK MULCH - MULCH SHALL NOT COVER ROOT FLARE, PROVIDE 1" DEPTH MULCH OVER THE ROOT BALL - WHEN PLANTED IN LAWN AREAS, EXTEND MULCH CIRCLE TO A 60" RADIUS AROUND THE TREE UNLESS NOTED OTHERWISE, TYP.
  - PROVIDE 3"-4" HIGH SOIL SAUCER RING AROUND TREE PIT IF NO IRRIGATION IS PRESENT, HAND HAMM TO PREVENT EROSION, TYP.
  - COMPACT BOTTOM OF PLANTING PIT TO PREVENT SETTLING, TYP.
  - DIG TREE PIT 2X BALL DIA. MIN, LIGHTLY SCARIFY THE SIDES OF THE TREE PIT TO ALLOW FOR ROOT GROWTH INTO ADJACENT SOILS, TYP.
  - SHOVEL CUT EDGE OR EDGING AROUND TREE, TYP. - REFER TO PLANS
  - BACKFILL TOP 2/3 OF TREE PIT WITH APPROVED TOPSOIL - WATER IN AND REMOVE AIR POCKETS, CONTINUE TO FILL WITH TOPSOIL IF SETTLEMENT HAS OCCURRED UNTIL CORRECT ELEVATIONS ARE ACHIEVED, DO NOT FILL ON ROOT FLARE - REFER TO SPECS

**1 Deciduous Tree Planting Detail**  
 NOT TO SCALE



- POLYPROPYLENE GUYING FABRIC, LOCATE ABOVE FIRST BRANCH, TYP. - REFER TO SPECS
- 2" x 2" x 12" LONG UNTREATED HARDWOOD STAKES, STAKES TO EXTEND 18" BELOW TREE PIT IN UNDISTURBED SOIL, SET VERTICALLY PLUMB AND EVENLY SPACED, TYP.
- SHOVEL CUT EDGE OR EDGING AROUND TREE, TYP. - REFER TO PLANS
- ROOT FLARE - (AREA OF RAPID TAPER), REMOVE ALL SOILS ABOVE THIS LINE AND SET BOTTOM OF ROOT FLARE FLUSH TO ADJACENT FINISH GRADE - ROOT FLARE SHOULD NOT HAVE MULCH OVER TOP OF IT AND SHOULD REMAIN VISIBLE AT THE COMPLETION OF PLANTING, TYP.
- BACKFILL WITH FULVERIZED EXCAVATED NATIVE SOIL UNTIL 1/3 OF THE TREE PIT IS FILLED, HAND COMPACT BY FOOT OR TAMPER TO STABILIZE AND PLUMB TREE - REFER TO SPECS
- 12" MINIMUM BETWEEN ROOT BALL AND EDGE OF PLANT PIT, CUT PIT SIDES @ 60° ANGLE, TYP.
- ADJACENT FINISH GRADE - ENSURE BOTTOM OF ROOT FLARE IS SET FLUSH TO THIS ELEVATION, TYP.
- CUT AND REMOVE BURLAP TO 6" BELOW GRADE OR 1/3 OF THE ROOT BALL WHICHEVER IS GREATER AND REMOVE TUINE FROM ROOT FLARE, IF PRESENT CUT WIRE BASKET AND REMOVE 6"-8" BELOW GRADE, DISPOSE OF LEGALLY NOT IN PIT, TYP.
- 3" DEPTH DOUBLE PROCESSED SHREDDED BARK MULCH - MULCH SHALL NOT COVER ROOT FLARE, PROVIDE 1" DEPTH MULCH OVER THE ROOT BALL - WHEN PLANTED IN LAWN AREAS, EXTEND MULCH CIRCLE TO A 60" RADIUS AROUND THE TREE UNLESS NOTED OTHERWISE, TYP.
- PROVIDE 3"-4" HIGH SOIL SAUCER RING AROUND TREE PIT IF NO IRRIGATION IS PRESENT, HAND HAMM TO PREVENT EROSION, TYP.
- COMPACT BOTTOM OF PLANTING PIT TO PREVENT SETTLING, TYP.
- DIG TREE PIT 2X BALL DIA. MIN, LIGHTLY SCARIFY THE SIDES OF THE TREE PIT TO ALLOW FOR ROOT GROWTH INTO ADJACENT SOILS, TYP.
- BACKFILL TOP 2/3 OF TREE PIT WITH APPROVED TOPSOIL - WATER IN AND REMOVE AIR POCKETS, CONTINUE TO FILL WITH TOPSOIL IF SETTLEMENT HAS OCCURRED UNTIL CORRECT ELEVATIONS ARE ACHIEVED, DO NOT FILL ON ROOT FLARE - REFER TO SPECS



- GENERAL NOTES**  
 STAKE TREES 4" CALIPER AND UNDER, 2 PER TREE.  
 GUY TREES OVER 4" CALIPER, 3 PER TREE.  
 CONTRACTOR TO VERIFY PERCOLATION AND COMPACTION OF PLANTING PIT PRIOR TO INSTALLATION.  
 SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION REGARDING PLANTING STANDARDS AND PROCEDURES.
- SHOVEL CUT EDGE OR EDGING AROUND TREE, TYP. - REFER TO PLANS
  - POLYPROPYLENE GUYING FABRIC, LOCATE ABOVE FIRST BRANCH, TYP. - REFER TO SPECS
  - 2" x 2" x 12" LONG UNTREATED HARDWOOD STAKES, STAKES TO EXTEND 18" BELOW TREE PIT IN UNDISTURBED SOIL, SET VERTICALLY PLUMB AND EVENLY SPACED, TYP.
  - INSTALL TREE WRAP FOR THIN SKINNED TREES, REMOVE AFTER FIRST YEAR, TYP. - REFER TO SPECS
  - ROOT FLARE - (AREA OF RAPID TAPER), REMOVE ALL SOILS ABOVE THIS LINE AND SET BOTTOM OF ROOT FLARE FLUSH TO ADJACENT FINISH GRADE - ROOT FLARE SHOULD NOT HAVE MULCH OVER TOP OF IT AND SHOULD REMAIN VISIBLE AT THE COMPLETION OF PLANTING, TYP.
  - BACKFILL WITH FULVERIZED EXCAVATED NATIVE SOIL UNTIL 1/3 OF THE TREE PIT IS FILLED, HAND COMPACT BY FOOT OR TAMPER TO STABILIZE AND PLUMB TREE - REFER TO SPECS
  - 12" MINIMUM BETWEEN ROOT BALL AND EDGE OF PLANT PIT, CUT PIT SIDES @ 60° ANGLE, TYP.
  - ADJACENT FINISH GRADE - ENSURE BOTTOM OF ROOT FLARE IS SET FLUSH TO THIS ELEVATION, TYP.
  - CUT AND REMOVE BURLAP TO 6" BELOW GRADE OR 1/3 OF THE ROOT BALL WHICHEVER IS GREATER AND REMOVE TUINE FROM ROOT FLARE, IF PRESENT CUT WIRE BASKET AND REMOVE 6"-8" BELOW GRADE, DISPOSE OF LEGALLY NOT IN PIT, TYP.
  - 3" DEPTH DOUBLE PROCESSED SHREDDED BARK MULCH - MULCH SHALL NOT COVER ROOT FLARE, PROVIDE 1" DEPTH MULCH OVER THE ROOT BALL - WHEN PLANTED IN LAWN AREAS, EXTEND MULCH CIRCLE TO A 60" RADIUS AROUND THE TREE UNLESS NOTED OTHERWISE, TYP.
  - PROVIDE 3"-4" HIGH SOIL SAUCER RING AROUND TREE PIT IF NO IRRIGATION IS PRESENT, HAND HAMM TO PREVENT EROSION, TYP.
  - COMPACT BOTTOM OF PLANTING PIT TO PREVENT SETTLING, TYP.
  - DIG TREE PIT 2X BALL DIA. MIN, LIGHTLY SCARIFY THE SIDES OF THE TREE PIT TO ALLOW FOR ROOT GROWTH INTO ADJACENT SOILS, TYP.
  - SHOVEL CUT EDGE OR EDGING AROUND TREE, TYP. - REFER TO PLANS
  - BACKFILL TOP 2/3 OF TREE PIT WITH APPROVED TOPSOIL - WATER IN AND REMOVE AIR POCKETS, CONTINUE TO FILL WITH TOPSOIL IF SETTLEMENT HAS OCCURRED UNTIL CORRECT ELEVATIONS ARE ACHIEVED, DO NOT FILL ON ROOT FLARE - REFER TO SPECS

**GRISSIM METZ ANDRIESE ASSOCIATES**

Landscape Architecture  
 15000 Edwards N. Hines Dr., Suite A  
 Plymouth, MI 48170  
 Ph: 248-347-7010

Project:  
**The Downs**  
**River Park**  
 Northville, MI

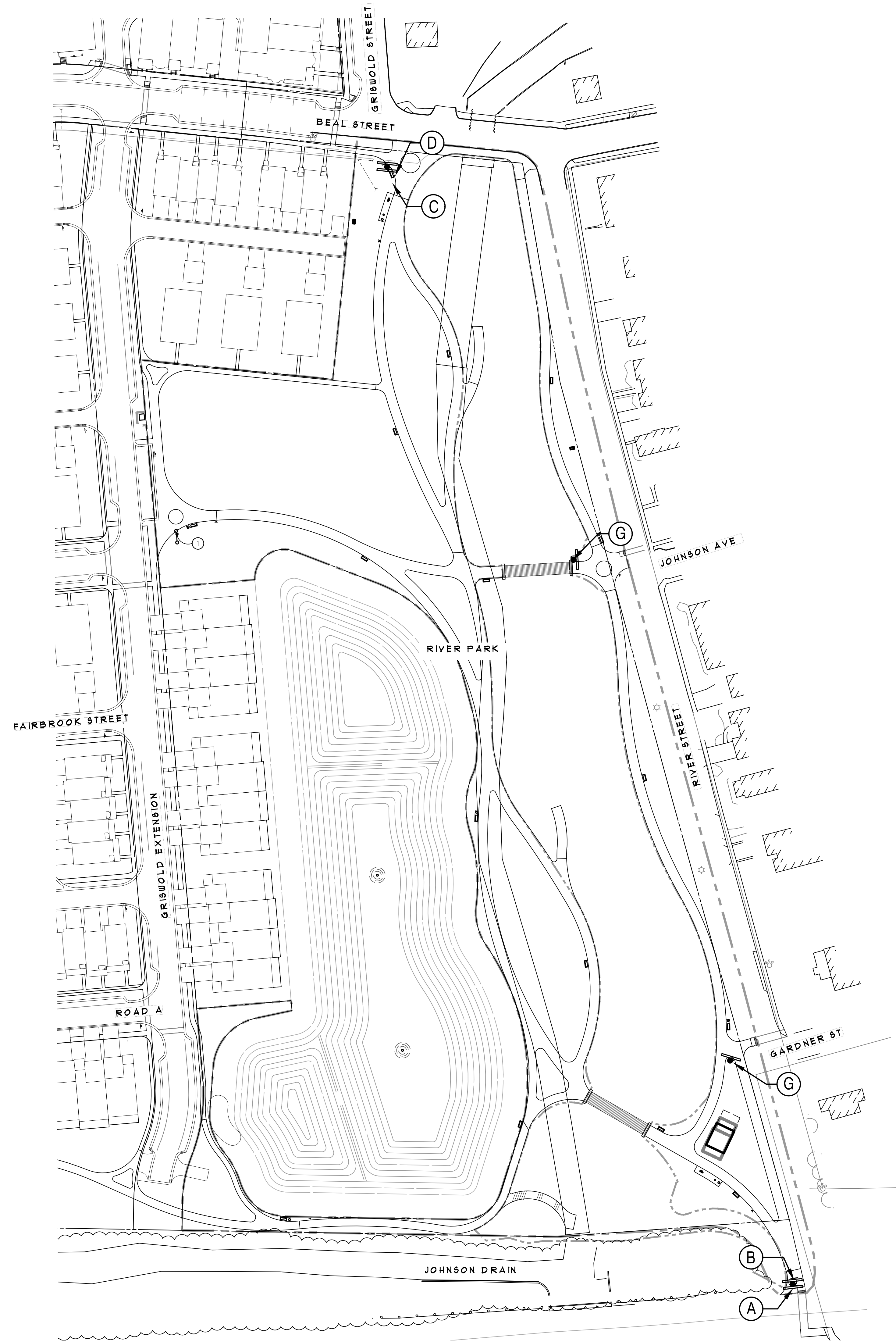
Sheet:  
**Landscape Details**

Job Number: **H70-222**  
 Drawn: **TFW**  
 Checked: **RH**

Date: **04.22.2024** Issued for: **Bids**

Sheet Number:  
**L400**  
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**Wayfinding Legend:**

LOCATION	TEXT	ARROW DIRECTION
A	RIVER PARK / CENTRAL PARK FORD FIELD / DOWNTOWN	↑
B	HINES PARK	←
C	CENTRAL PARK FORD FIELD / DOWNTOWN	↑
D	RIVER PARK / HINES PARK	↑
G	RIVER PARK	↑

**General Wayfinding Notes:**

- SIGN GRAPHICS SHOWN ARE THE CITY STANDARD AS DEVELOPED BY BUZZELL DESIGN, INC.  
CONTACT - BUZZ BUZZELL  
PHONE - 704-691-3528  
EMAIL - BUZZBUZZELL@GMAIL.COM
- A SIGN MANUFACTURER SHALL PROVIDE COMPLETE SHOP DRAWINGS FOR ALL NEW WAYFINDING SIGNS. SHOP DRAWINGS SHALL MATCH THE CITY STANDARD.
- SIGN MOUNTING SELECTIONS TO BE MADE DURING FINAL ENGINEERING.

**Note Key:**

- ① GROUND MOUNTED PARK ENTRANCE SIGN TO MATCH CITY STYLE

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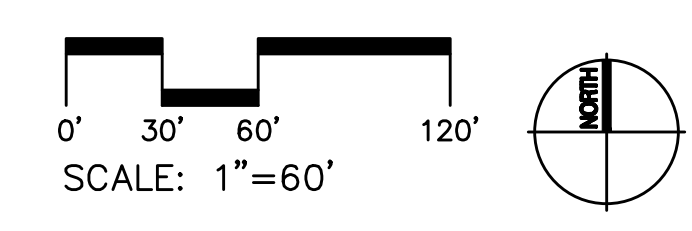
Project:  
**The Downs**  
**River Park**  
Northville, MI

Sheet:  
**Pedestrian Wayfinding Plan**

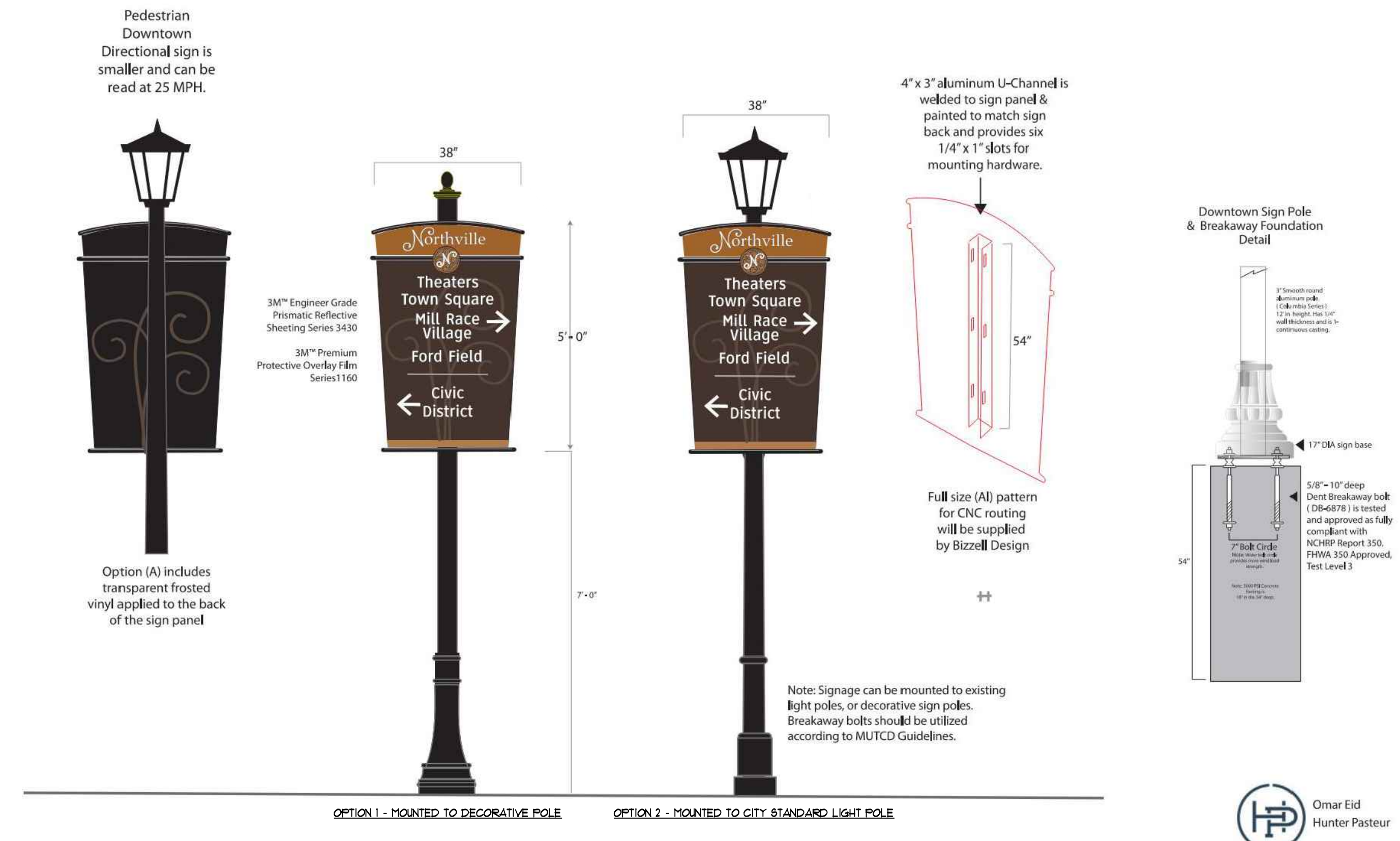
Job Number: **H70-222**  
Drawn: **TFW**  
Checked: **RH**  
Scale:

Date: **04.22.2024** Issued for: **Bids**

Sheet Number: **L500**  
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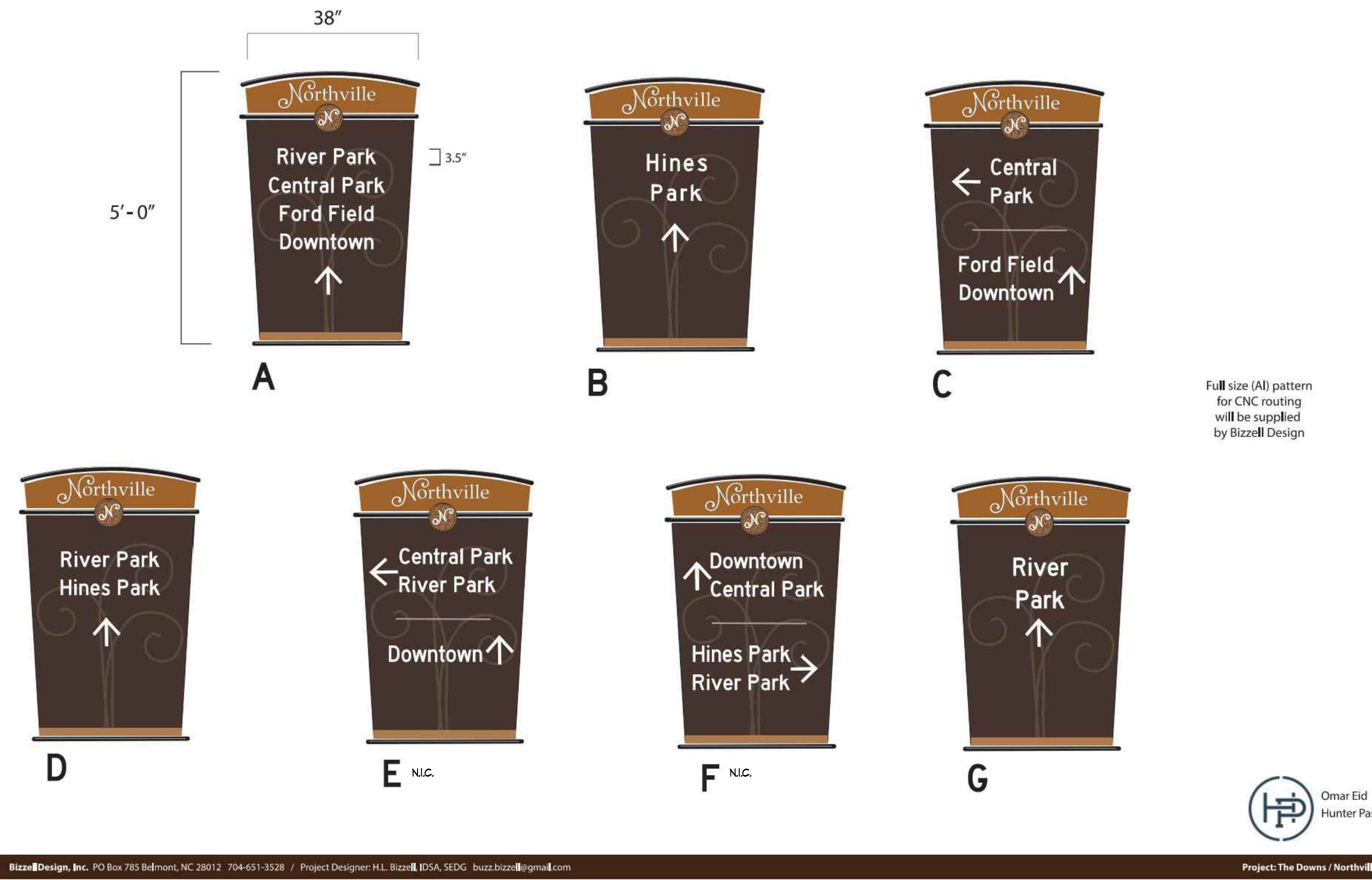


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2 Type B Wayfinding Pole Options  
NOT TO SCALE

Messaging



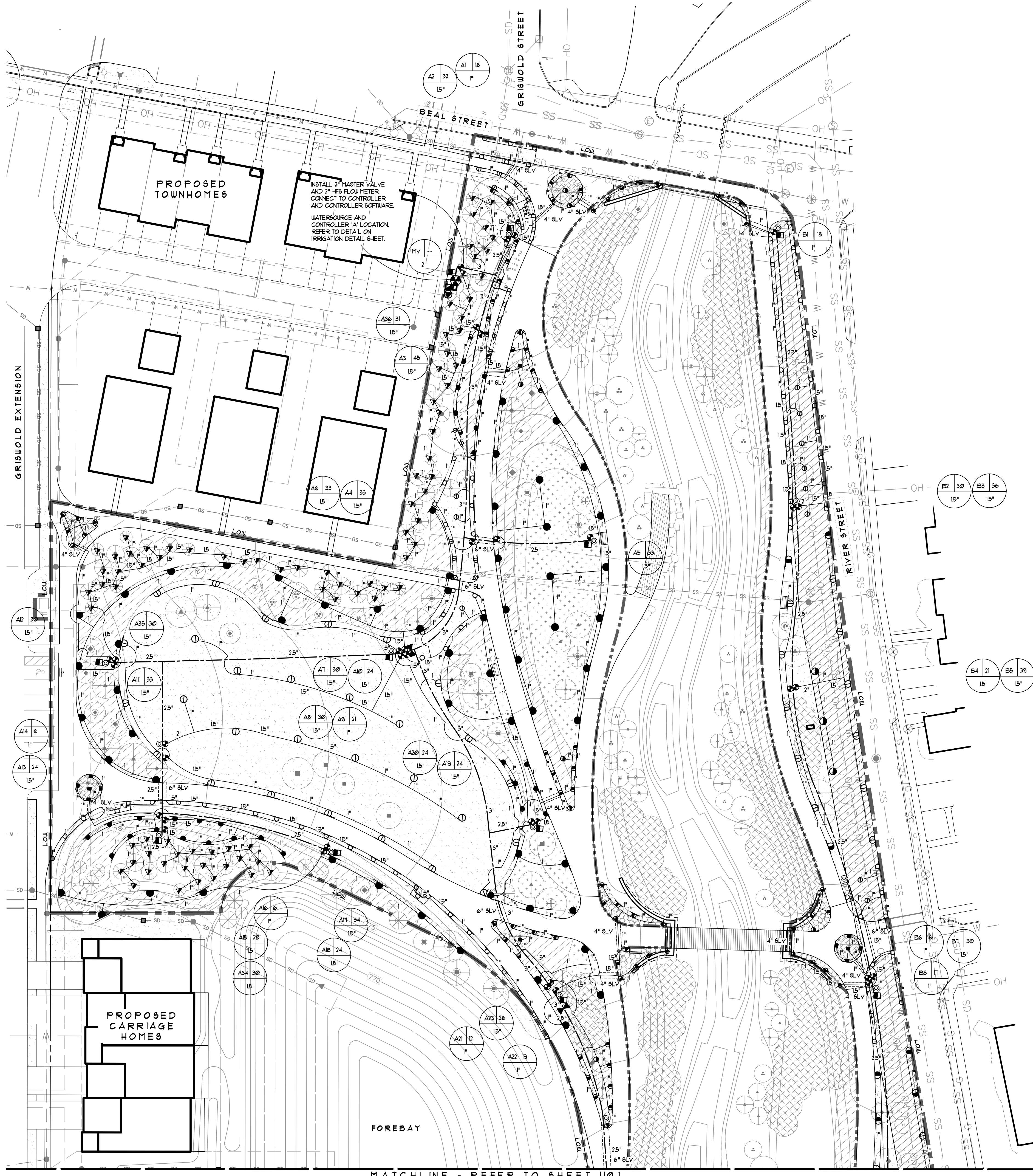
1 Type B Wayfinding Signs - Project Specific  
NOT TO SCALE

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ANDRIESE**

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15000 Edwards N. Hines Dr., Suite A  
Plymouth, MI 48170  
Ph: 248-347-7010

Project:	The Downs
	River Park
	Northville, MI
Sheet:	Pedestrian Wayfinding Details
Job Number:	H70-222
Drawn:	TFW
Checked:	RH
Scale:	
Date:	04.22.2024
Issued for:	Bids

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**Legend:** (APPLIES TO 1100-1101, NOT ALL GRAPHICS APPLY TO EACH SHEET)

- PROPERTY LINE, TYP.
- LOW
- RIVER PARK LIMIT OF WORK
- RIVER CHANNEL LANDSCAPE ZONE - REFER TO BARR ENGINEERING PLANS

**Irrigation Legend:**

KEY	EQUIPMENT	HUNTER
	Stream Bubbler	MSEN-10F
	4" Pop Up Spray w/	FR05-04-PR330-CV w/ Pro-Spray Fixed Nozzles
	15' Radius Nozzle	15 Series Nozzle
	17' Radius Nozzle	17 Series Nozzle
	10' Radius Nozzle	10 Series Nozzle
	Strip Spray Nozzle	55-530 Side, E5-515 End
	12" Pop Up Spray w/	FR05-12-PR330-CV w/ Pro-Spray Fixed Nozzles
	15' Radius Nozzle	15 Series Nozzle
	17' Radius Nozzle	17 Series Nozzle
	10' Radius Nozzle	10 Series Nozzle
	Strip Spray Nozzle	55-530 Side, E5-515 End
	Medium Rotary Sprinkler	1-20-04
	35' Radius, 3.0 GPM	3.0 Nozzle
	35' Radius, 6.0 GPM	6.0 Nozzle
	25' Radius, 25 GPM	25 Nozzle
	12" Rotary Sprinkler	1-20-12
	30' Radius, 3.0 GPM	3.0 Nozzle
	35' Radius, 6.0 GPM	6.0 Nozzle
	Automatic Control Valve	ICV
	Quick Coupling Valve	QVC-100
	2" Water Source	See Notes on Plans
	Pedestal mount two-wire controller with cellular module and subscription to Centralis software	A2C-TSD-86 w/FED-86 A2C-LTEM Cellular Module
	Rain Sensor	Solar Sync
	Surge Arrester	Hunter
	Isolation Valve	Nibco T13

- Timer Designation
- GPM
- Valve Size
- MAINLINE PIPE, CLASS 200 PVC, REFER TO SPECIFICATIONS
- LATERAL PIPE, PE 3408, 100 PSI, REFER TO SPECIFICATIONS
- 6" SLV SLEEVE TO BE INSTALLED BENEATH NEW PAVING, 24" BURIED. SIZE AS SHOWN. INSTALLATION SHALL BE PART OF IRRIGATION SCOPE OF WORK.

**GENERAL NOTES**

EXACT LOCATION OF THE TAP AND METER WILL BE LOCATED PER CIVIL ENGINEERING PLANS.

BACKFLOW PREVENTER - BOOSTER PUMP - CONTROLLER LOCATION WILL BE PLACED PER LANDSCAPE ARCHITECT DIRECTION. REFER TO LANDSCAPE AND SITE PLANS FOR THE EXACT LOCATION.

POSITION CONTROLLER AND ENCLOSURE SO THAT EACH CAN BE ACCESSED AND SO THAT ENCLOSURE LIDS AND DOORS CAN BE FULLY OPENED WITHOUT INTERFERENCE FROM ADJACENT SITE ITEMS.

THE POWER SOURCE AND STARTER DISCONNECT FOR THE BOOSTER PUMP POWER AND CONTROLLER POWER WILL BE PROVIDED BY ELECTRICAL TRADES. COORDINATE ALL WORK WITH ELECTRICAL TRADES.

EXTEND POWER WIRE TO THE PUMP. WORK TO BE PER ALL APPLICABLE ELECTRICAL CODES FOR AN EXTERIOR INSTALLATION.

CONFIRM PUMP POWER AND PHASE AVAILABLE PRIOR TO ORDERING PUMP.

HARD WIRE 110 VOLT POWER TO CONTROLLER.

INSTALL WEATHER SENSOR IN UNOBSTRUCTED LOCATION.

OBTAIN ASSISTANCE FROM LANDSCAPE CONTRACTOR TO SET ZONE OPERATION TIMES.

**Alternate Price #1:**

BASE BID INCLUDES QUICK COUPLERS NEAR TREE ZONES IN RIVER CORRIDOR FOR HAND WATERING OF ALL TREES WITHIN RIVER CORRIDOR.

PROVIDE ALTERNATE PRICE TO INCLUDE UP TO 6 ZONES (3 ON EACH SIDE OF RIVER) FOR TEMPORARY IRRIGATION SYSTEM FOR TREE ESTABLISHMENT WITHIN RIVER CORRIDOR. QUICK COUPLERS TO REMAIN IN BASE BID.



**Key Map**  
Scale: Not to Scale

**GRISSIM METZ ASSOCIATES ANDRIESE**

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15000 Edwards N. Hines Dr., Suite A  
Plymouth, MI 48170  
Ph: 248-347-7010

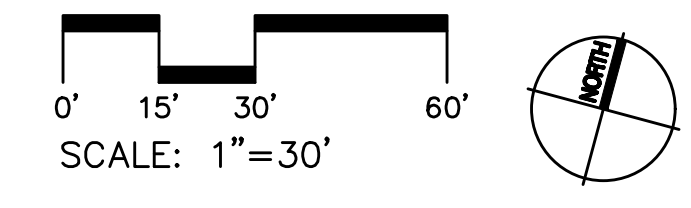
Project: The Downs River Park  
Northville, MI

Sheet: Irrigation Plan

Job Number: H70-222  
Drawn: GG  
Checked: RH  
Scale: \_\_\_\_\_

Date: 04.22.2024 Issued for: Bids

Sheet Number: 1100  
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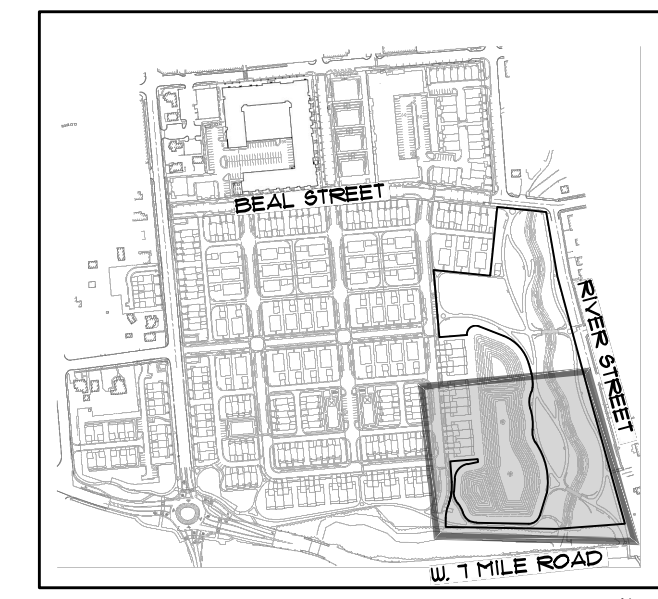
MATCHLINE - REFER TO SHEET 1101

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**Legend:** (APPLIES TO 1100-1101, NOT ALL GRAPHICS APPLY TO EACH SHEET)

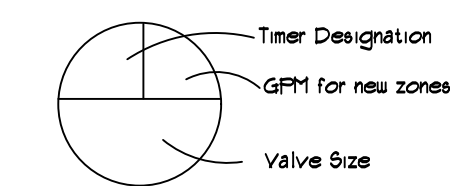
- PROPERTY LINE, TYP.
- LOW
- RIVER PARK LIMIT OF WORK
- RIVER CHANNEL LANDSCAPE ZONE - REFER TO BARR ENGINEERING PLANS



**Key Map**  
Scale: Not to Scale

**Irrigation Legend:**

KEY	EQUIPMENT	HUNTER
▼	Stream Bubbler	15BN-10F
□ F H	4" Pop Up Spray w/	PRO6-04-PR330-CV w/ Pro-Spray Fixed Nozzles
○	5' Radius Nozzle	15 Series Nozzle
○	12' Radius Nozzle	12 Series Nozzle
○	10' Radius Nozzle	10 Series Nozzle
○	Strip Spray Nozzle	66-530 Side, ES-515 End
□ F H	12" Pop Up Spray w/	PRO6-12-PR330-CV w/ Pro-Spray Fixed Nozzles
○	5' Radius Nozzle	15 Series Nozzle
○	12' Radius Nozzle	12 Series Nozzle
○	10' Radius Nozzle	10 Series Nozzle
○	Strip Spray Nozzle	66-530 Side, ES-515 End
○	Medium Rotary Sprinkler	1-20-04
○	35' Radius, 3.0 GPM	3.0 Nozzle
○	35' Radius, 6.0 GPM	6.0 Nozzle
○	25' Radius, 2.5 GPM	2.5 Nozzle
○	12" Rotary Sprinkler	1-20-12
○	30' Radius, 3.0 GPM	3.0 Nozzle
○	35' Radius, 6.0 GPM	6.0 Nozzle
○	Automatic Control Valve	ICV
○	Quick Coupling Valve	QVC-100
○	2" Watersource	See Notes on Plans
○	Pedestal mount two-wire controller with cellular module and subscription to Centralis software	A2C-15D-66 w/PED-66 A2C-LTEM Cellular Module
○	Rain Sensor	Solar Sync
○	Surge Arrestor	Hunter
○	Isolation Valve	Nibco T113
○	Line Size	



- MAINLINE PIPE, CLASS 200 PVC, REFER TO SPECIFICATIONS
- LATERAL PIPE, PE 3408, 100 PSI, REFER TO SPECIFICATIONS
- X" SLV SLEEVE TO BE INSTALLED BENEATH NEW PAVING, 24" BURY. SIZE AS SHOWN. INSTALLATION SHALL BE PART OF IRRIGATION SCOPE OF WORK

**GENERAL NOTES**

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CONFIRM PUMP POWER AND PHASE AVAILABLE PRIOR TO ORDERING PUMP.

HARD WIRE 110 VOLT POWER TO CONTROLLER.

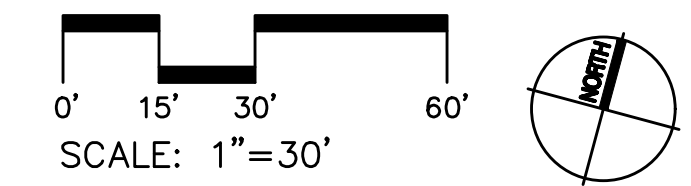
INSTALL WEATHER SENSOR IN UNOBSTRUCTED LOCATION.

OBTAIN ASSISTANCE FROM LANDSCAPE CONTRACTOR TO SET ZONE OPERATION TIMES.

**Alternate Price #1:**

BASE BID INCLUDES QUICK COUPLERS NEAR TREE ZONES IN RIVER CORRIDOR FOR HAND WATERING OF ALL TREES WITHIN RIVER CORRIDOR.

PROVIDE ALTERNATE PRICE TO INCLUDE UP TO 6 ZONES (3 ON EACH SIDE OF RIVER) FOR TEMPORARY IRRIGATION SYSTEM FOR TREE ESTABLISHMENT WITHIN RIVER CORRIDOR. QUICK COUPLERS TO REMAIN IN BASE BID.



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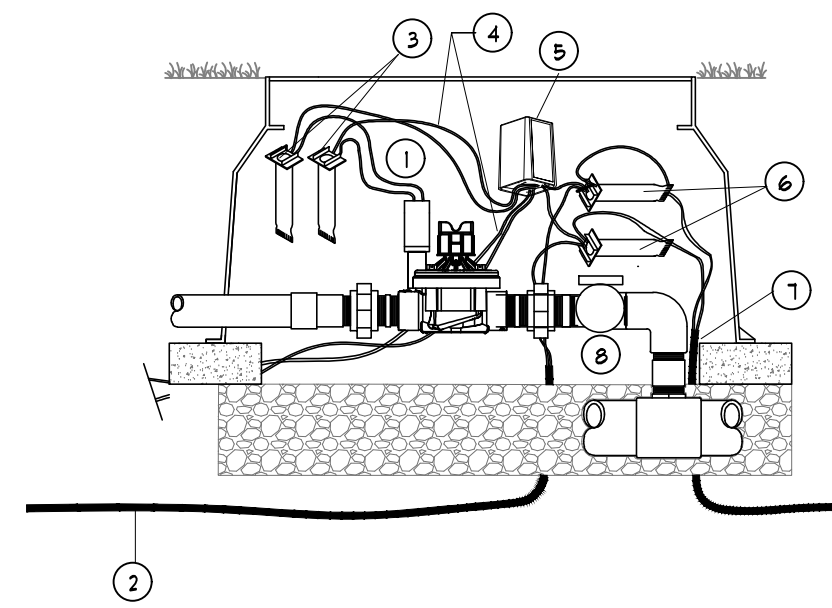
Landscape Architecture  
15000 Edwards N. Hines Dr., Suite A  
Plymouth, MI 48170  
Ph: 248-347-7010

Project:	The Downs
Location:	River Park
City:	Northville, MI
Sheet:	Irrigation Plan
Job Number:	H70-222
Drawn:	GG
Checked:	RH
Scale:	

Date: 04.22.2024 Issued for: Bids

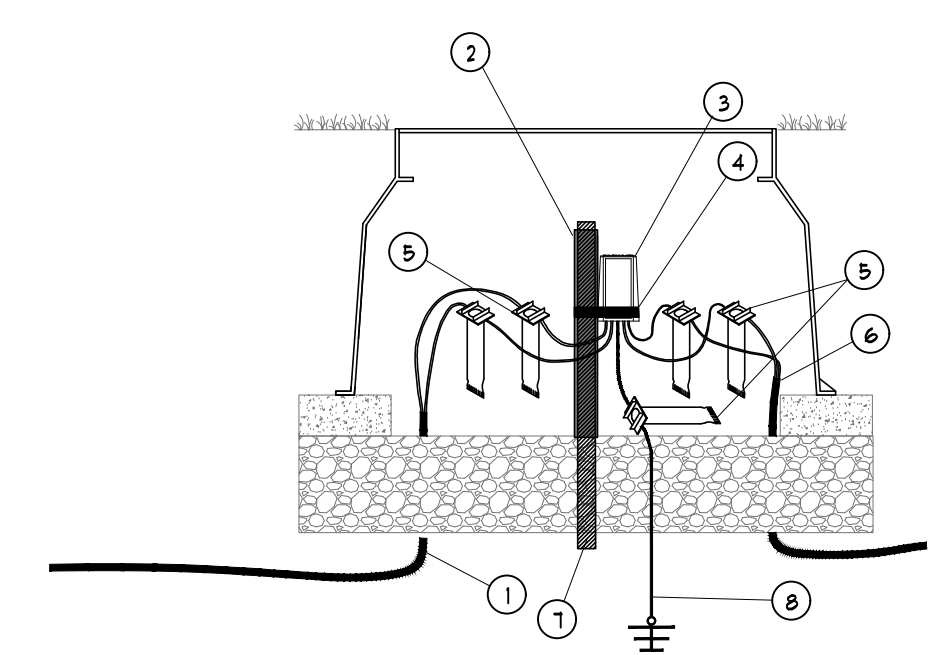
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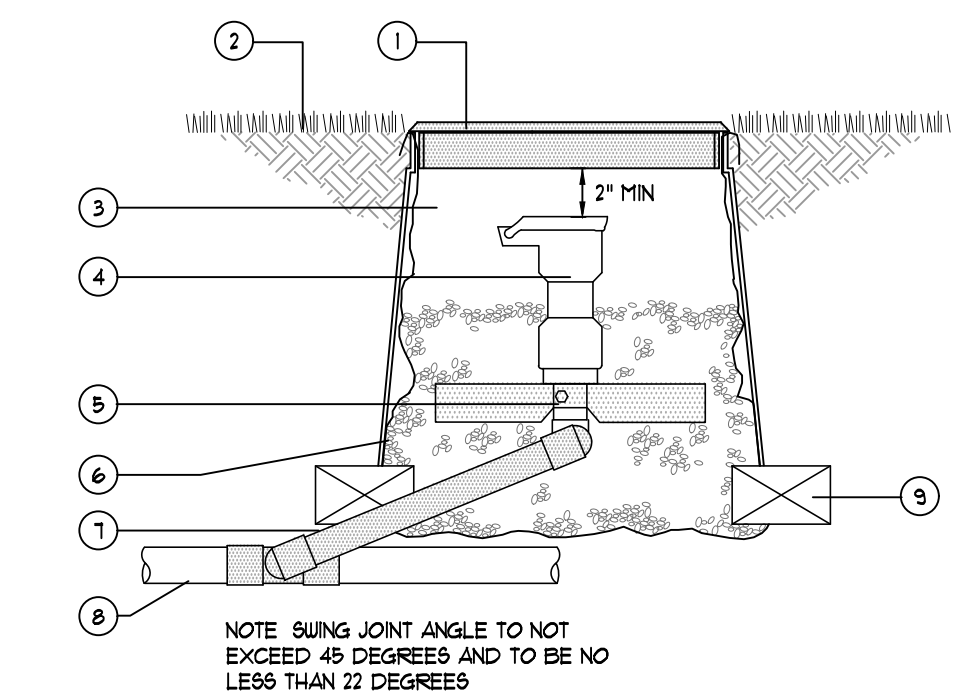
- 1 DECODER TO SOLENOID MAX RUN 100 FT/30FT
- 2 JACKETED ID WIRE PATH TO NEXT DECODER
- 3 DBRY-6 (4)
- 4 COLOR CODED VALVE WIRES
- 5 DECODER
- 6 DBRY-6 (2)
- 7 JACKETED ID WIRE FROM CONTROLLER ALLOW 5 FT/1.5M SLACK PER DECODER 1/2 ON EITHER SIDE OF DECODER
- 8 PLASTIC BALL VALVE, SAME SIZE AS AUTOMATIC VALVE

1 Automatic Valve Detail  
NOT TO SCALE



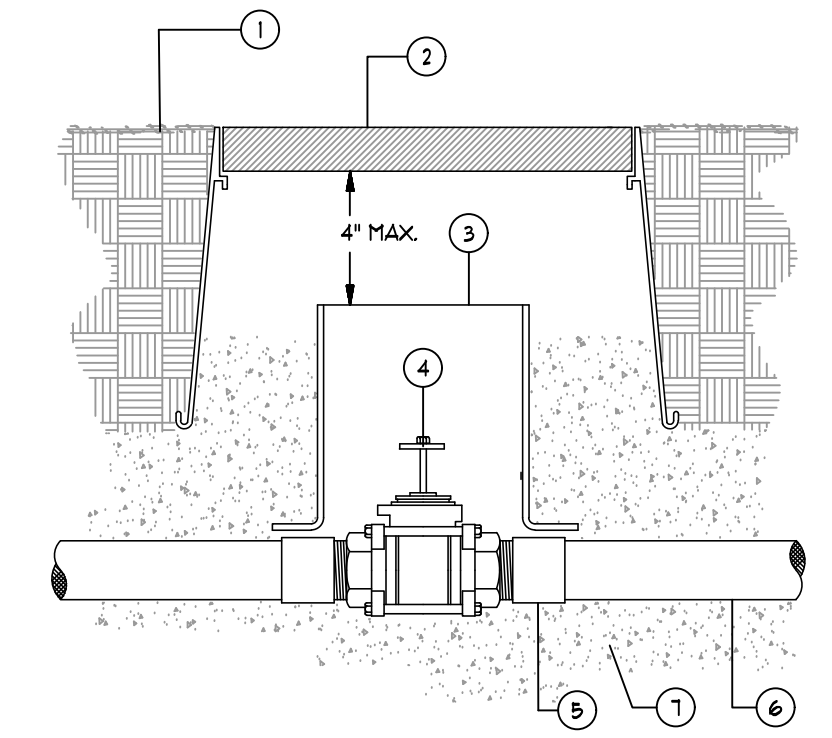
- 1 TO NEXT DECODER
- 2 PVC PIPE 1" SCH 40
- 3 SURGE PROTECTION MODULE
- 4 ELECTRICAL CABLE TIE - 12"
- 5 DBRY-6 (5)
- 6 JACKETED ID WIRE PATH FROM CONTROLLER ALLOW 5 FT/1.5M SLACK PER SURGE DEVICE 1/2 ON EITHER SIDE
- 7 PVC PIPE .75" SCH 40
- 8 TO EARTH GROUND 8FT/2.5M FROM DECODER AT RIGHT ANGLE TO THE 2-WIRE PATH

2 Grounding/Surge Arrestor Detail  
NOT TO SCALE



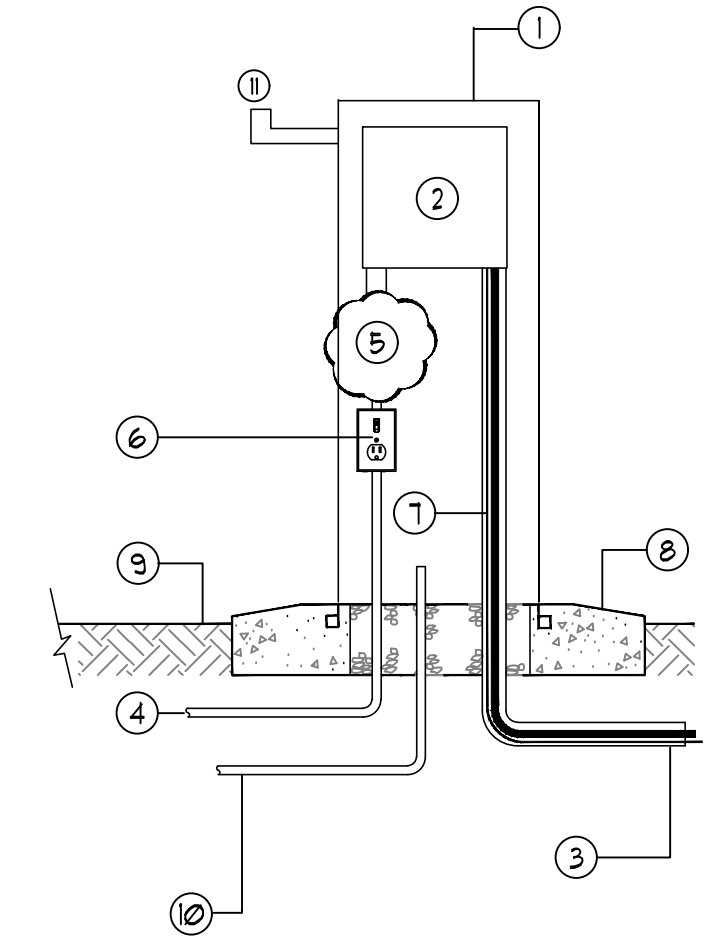
- 1 10" ROUND ARMOR OR CARBON VALVE BOX
- 2 FINISH GRADE
- 3 INTERIOR OF BOX TO BE FREE FROM SOIL AND DEBRIS
- 4 1" QUICK COUPLING VALVE
- 5 1" QUICK COUPLER STABILIZER
- 6 FILTER FABRIC WITH PEA STONE. FILL VALVE BOX WITH STONE TO 2" BELOW QUICK COUPLER TOP, PACK STONE IN 1" LIFTS
- 7 SCHEDULE 80 PRE-FABRICATED SWING JOINT WITH O-RING SEALS AND MINIMUM 12" LAY LENGTH, LASCO, SPEARS, OR DURA
- 8 MAINLINE PIPE
- 9 BRICK SUPPORT - INSTALL TWO ON OPPOSING SIDES

3 Quick Coupling Valve Detail  
NOT TO SCALE



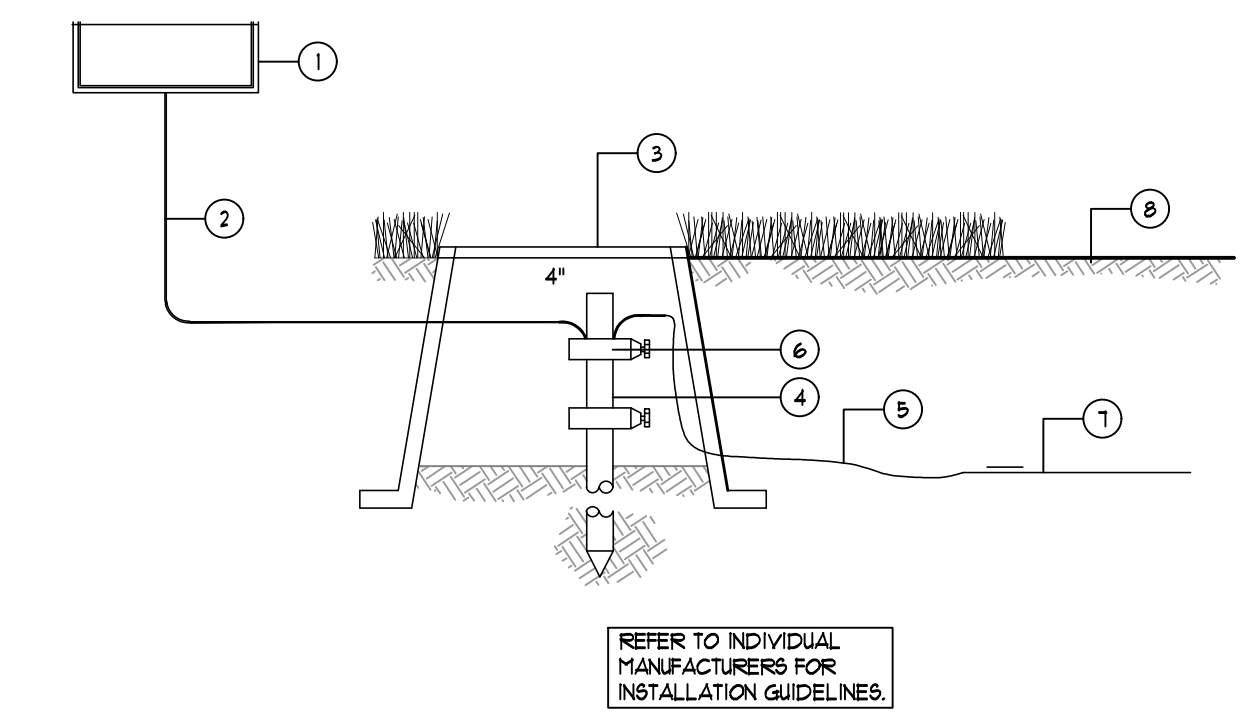
- 1 FINISH GRADE
- 2 11" X 14" VALVE BOX - SEE GENERAL NOTES, 1202
- 3 8" DIAMETER CL. 160 PVC SLEEVE BOTTOM TO BE FLARED AND CONTACT TOP OF PRESSURE SUPPLY LINE
- 4 GATE VALVE, SIZE TO EQUAL MAINLINE SIZE
- 5 5/16" X 1/2" SCH. 80 PVC ADAPTOR (2 REQUIRED)
- 6 MAINLINE PIPE
- 7 3/4" CRUSHED ROCK 1 CU FT. MIN

4 Isolation Valve  
NOT TO SCALE



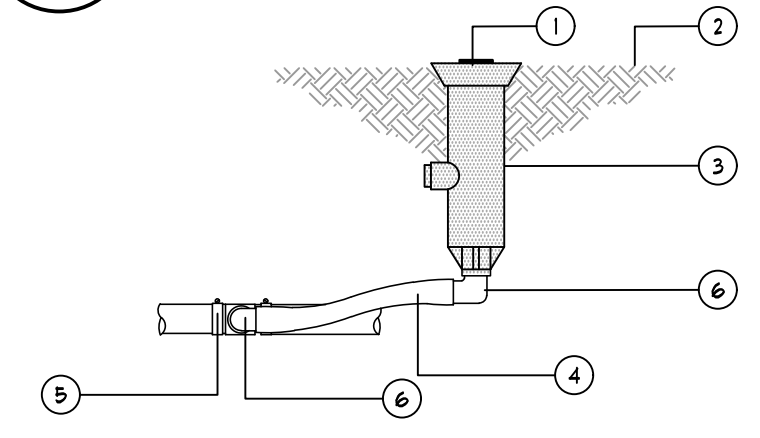
- 1 CONTROLLER MANUFACTURER FEDESTAL ENCLOSURE
- 2 CONTROLLER INSTALLED INSIDE MANUFACTURER ENCLOSURE
- 3 ONE 2" PVC CONDUIT FOR TWO-WIRE CABLE AND GROUNDING WIRE
- 4 1-1/4" SCHEDULE 80 PVC CONDUIT FOR 100 VAC POWER SUPPLY, 42" BURY.
- 5 SURGE PROTECTION REFER TO SPECIFIC MANUFACTURER'S RECOMMENDATIONS.
- 6 GFI SWITCH, REFER TO LOCAL ELECTRIC CODE FOR CONNECTIONS
- 7 #6 COPPER GROUND WIRE FROM CONTROLLER
- 8 24" x 24" x 4" THICK POURED CONCRETE BASE
- 9 FINISHED GRADE
- 10 1-1/4" SCHEDULE 80 PVC CONDUIT FOR COMMUNICATION LINE, 42" BURY.
- 11 RAIN SENSOR

6 Control Timer Detail  
NOT TO SCALE



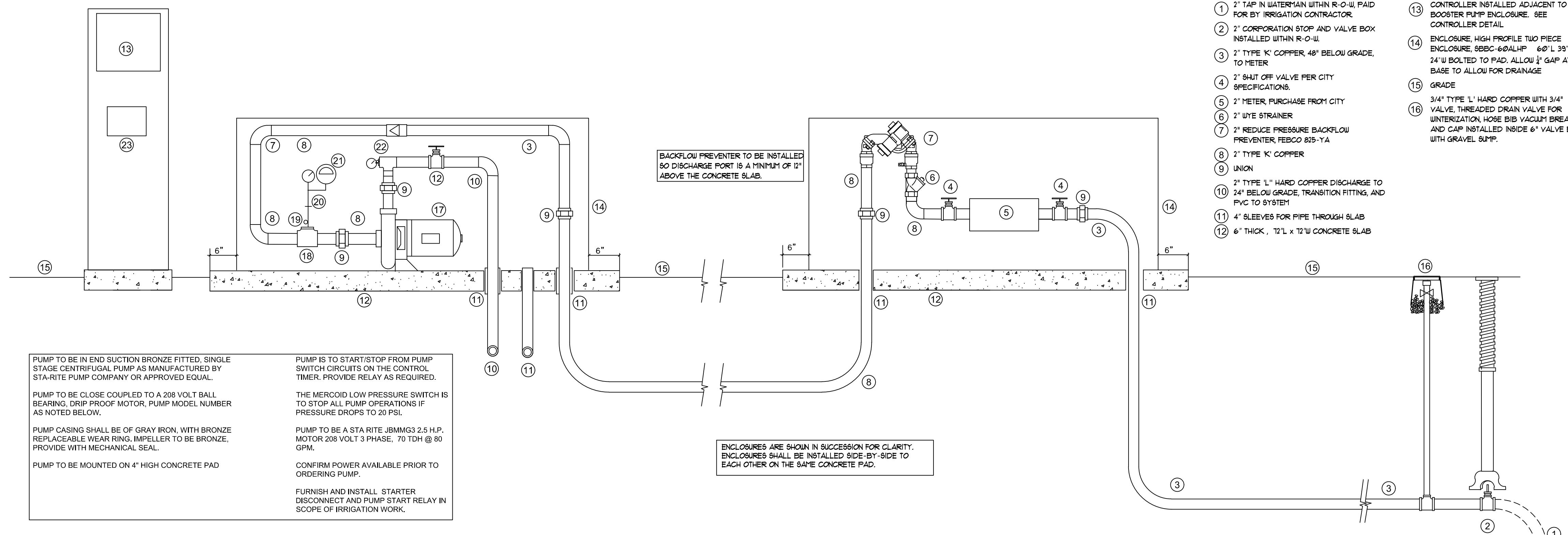
- 1 CONTROL TIMER
- 2 SOLID BARE COPPER WIRE (#10) FROM GROUNDING ROD TO TIMER. MAKE WIRE AS SHORT AND STRAIGHT AS POSSIBLE.
- 3 COVER GROUNDING ROD WITH 10" ROUND VALVE BOX - SEE GENERAL NOTES, 1202
- 4 5/8-INCH X 10 FT COPPER CLAD GROUNDING ROD OR GROUNDING PLATE. INSTALL RODS IN A TRIANGULAR PATTERN SPACED A MINIMUM OF 10 FEET APART FROM EACH OTHER. GROUNDING GRID TO HAVE A RESISTANCE OF 10 OHMS OR LESS.
- 5 BARE COPPER WIRE (#6 AWG MIN) BETWEEN GROUNDING ROD AND GROUNDING PLATE.
- 6 GROUND ROD CLAMP
- 7 COPPER GROUNDING PLATE
- 8 FINISH GRADE

7 Control Timer Grounding Detail-Schematic  
NOT TO SCALE



- 1 INSTALL SPRINKLER 1/4" ABOVE GRADE AND A MINIMUM OF 6" OFF WALKS AND CURBS.
- 2 FINISH GRADE
- 3 POP UP SPRINKLER USING BOTTOM INLET.
- 4 1/2" SWING PIPE, MINIMUM LENGTH 8" MAXIMUM LENGTH 18"
- 5 STAINLESS STEEL WORM GEAR CLAMP AND SCREW
- 6 1/2" OR 3/4" MALE ELBOW

5 Two Elbow Swing Joint Detail  
NOT TO SCALE



PUMP TO BE IN END SUCTION BRONZE FITTED, SINGLE STAGE CENTRIFUGAL PUMP AS MANUFACTURED BY STA-RITE PUMP COMPANY OR APPROVED EQUAL.

PUMP TO BE CLOSE COUPLED TO A 208 VOLT BALL BEARING, DRIP PROOF MOTOR, PUMP MODEL NUMBER AS NOTED BELOW.

PUMP CASING SHALL BE OF GRAY IRON, WITH BRONZE REPLACEABLE WEAR RING, IMPELLER TO BE BRONZE, PROVIDE WITH MECHANICAL SEAL.

PUMP TO BE MOUNTED ON 4" HIGH CONCRETE PAD

PUMP IS TO START/STOP FROM PUMP SWITCH CIRCUITS ON THE CONTROL TIMER. PROVIDE RELAY AS REQUIRED.

THE MERCURY LOW PRESSURE SWITCH IS TO STOP ALL PUMP OPERATIONS IF PRESSURE DROPS TO 20 PSI.

PUMP TO BE A STA RITE JBMG3 2.5 H.P. MOTOR 208 VOLT 3 PHASE, 70 TDH @ 80 GPM.

CONFIRM POWER AVAILABLE PRIOR TO ORDERING PUMP.

FURNISH AND INSTALL STARTER DISCONNECT AND PUMP START RELAY IN SCOPE OF IRRIGATION WORK.

BACKFLOW PREVENTER TO BE INSTALLED SO DISCHARGE PORT IS A MINIMUM OF 12" ABOVE THE CONCRETE SLAB.

ENCLOSURES ARE SHOWN IN SUCCESSION FOR CLARITY. ENCLOSURES SHALL BE INSTALLED SIDE-BY-SIDE TO EACH OTHER ON THE SAME CONCRETE PAD.

- 1 2" TAP IN WATERMAIN WITHIN R-O-W, PAID FOR BY IRRIGATION CONTRACTOR.
- 2 2" CORPORATION STOP AND VALVE BOX INSTALLED WITHIN R-O-W
- 3 2" TYPE 'K' COPPER, 48" BELOW GRADE, TO METER
- 4 2" SHUT OFF VALVE PER CITY SPECIFICATIONS.
- 5 2" METER, PURCHASE FROM CITY
- 6 2" WYE STRAINER
- 7 2" REDUCE PRESSURE BACKFLOW PREVENTER, FEBCO 825-YA
- 8 2" TYPE 'K' COPPER
- 9 UNION
- 10 2" TYPE 'L' HARD COPPER DISCHARGE TO 24" BELOW GRADE, TRANSITION FITTING, AND PVC TO SYSTEM
- 11 4" SLEEVES FOR PIPE THROUGH SLAB
- 12 6" THICK, 12" L x 12" W CONCRETE SLAB
- 13 CONTROLLER INSTALLED ADJACENT TO BOOSTER PUMP ENCLOSURE. SEE CONTROLLER DETAIL.
- 14 ENCLOSURE, HIGH PROFILE TWO PIECE ENCLOSURE, SBBC-60ALHP 60" L 30" H 3/4" W BOLTED TO PAD, ALLOW 1/2" GAP AT BASE TO ALLOW FOR DRAINAGE
- 15 GRADE
- 16 3/4" TYPE 'L' HARD COPPER WITH 3/4" VALVE, THREADED DRAIN VALVE FOR WINTERIZATION HOSE BIB VACUUM BREAKER AND CAP INSTALLED INSIDE 6" VALVE BOX WITH GRAVEL SUMP.
- 17 BOOSTER PUMP
- 18 2" X 2" X 1" TEE
- 19 PETCOCK
- 20 1/4" COPPER TUBE
- 21 PRESSURE GAUGE AND LOW PRESSURE CUT OFF SWITCH ON WALL BEHIND PUMP
- 22 PRESSURE GAUGE
- 23 PUMP START RELAY

8 Watersource Detail - Schematic  
NOT TO SCALE

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Northville, MI

Sheet:  
**Irrigation Details**

Job Number: **H70-222**  
Drawn: **GG**  
Checked: **RH**  
Scale:

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