

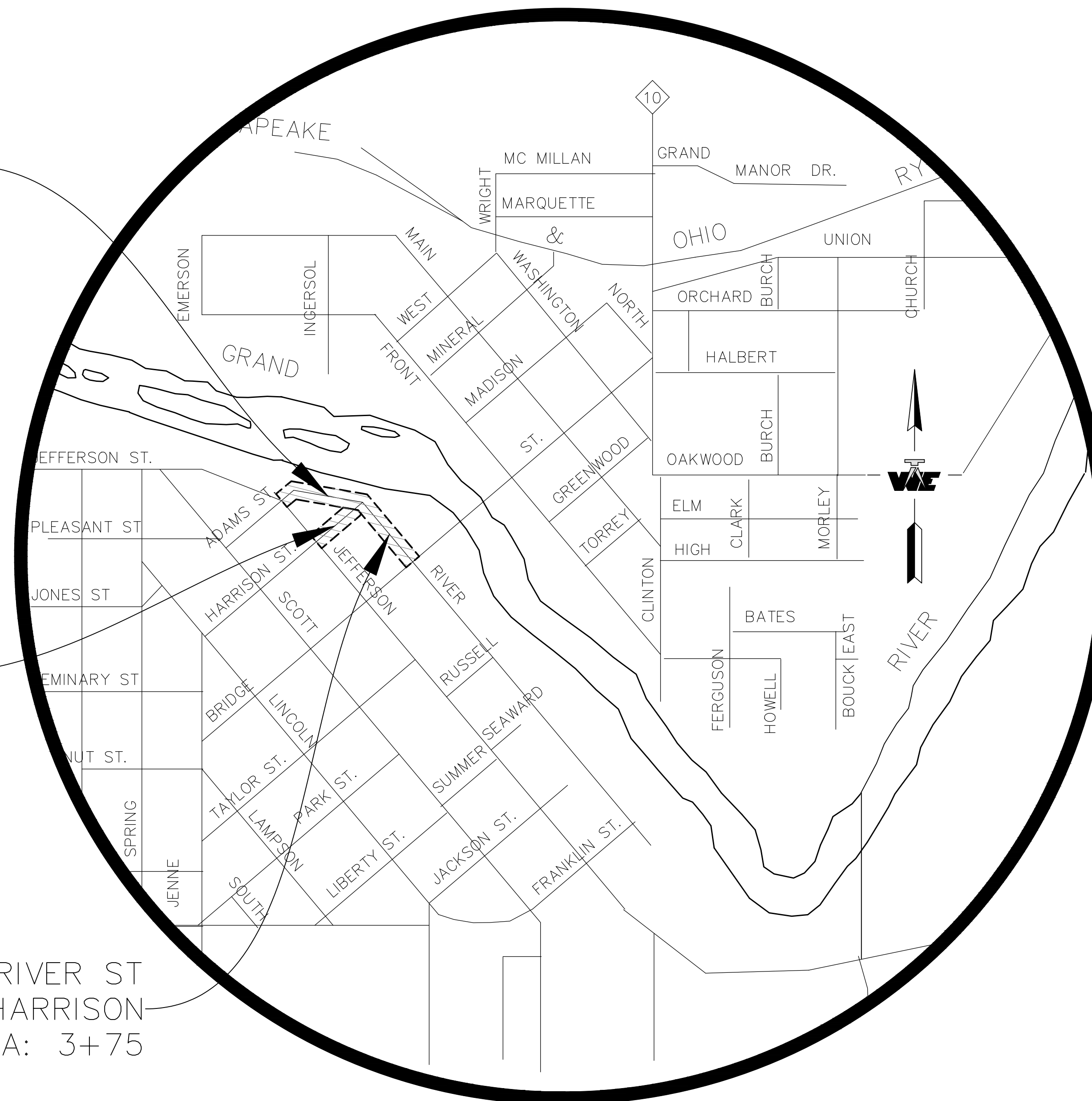
RIVER AND HARRISON STREETS IMPROVEMENTS

CITY OF GRAND LEDGE
SECTION 11, ONEIDA TOWNSHIP
EATON COUNTY, MICHIGAN

W RIVER ST
HARRISON TO W JEFFERSON
STA: 3+75 TO STA: 9+44

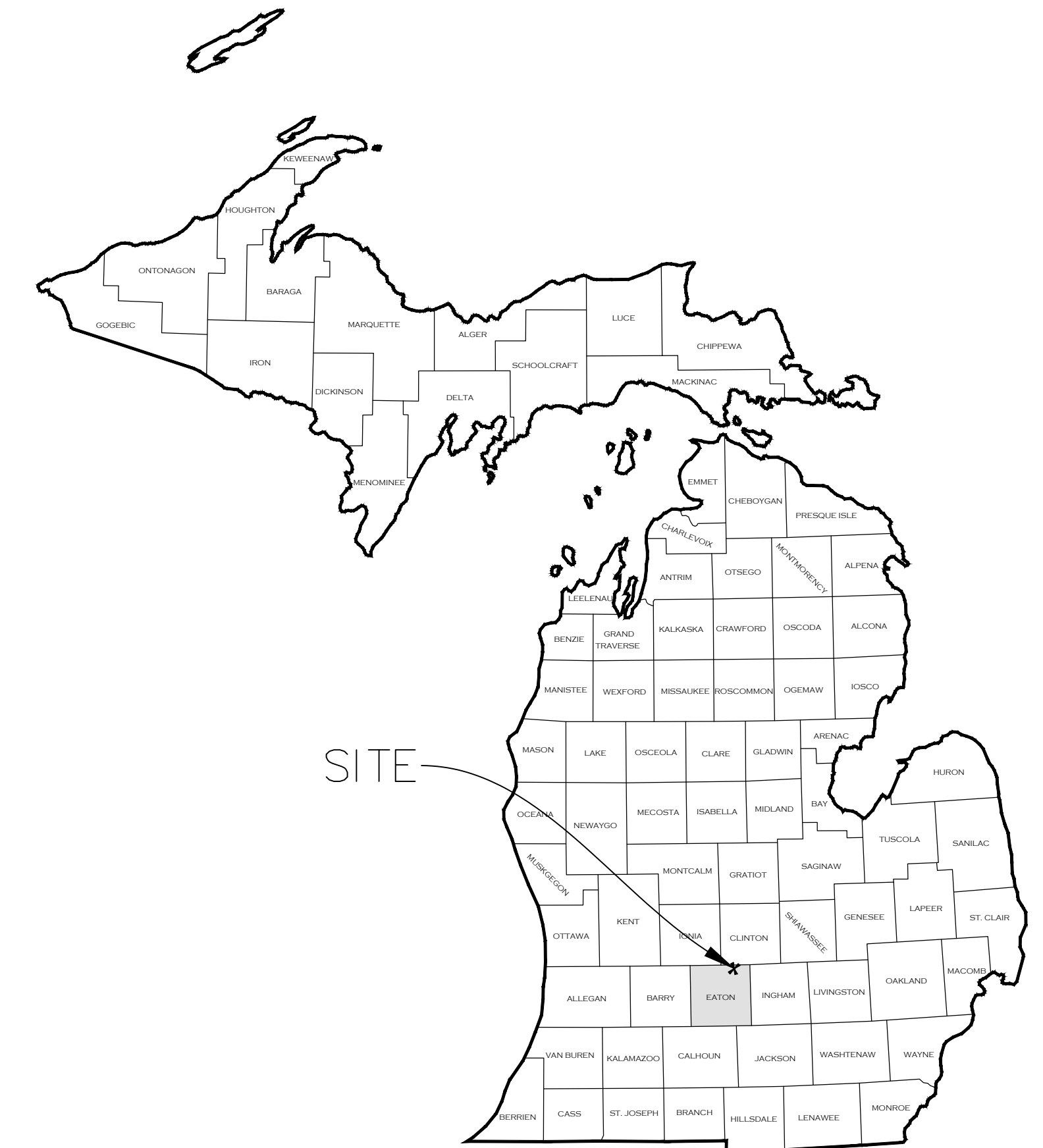
HARRISON ST
W RIVER TO W JEFFERSON
STA: 0+00 TO STA: 4+52

W RIVER ST
S BRIDGE TO HARRISON
STA: 0+00 TO STA: 3+75



LOCATION MAP

NOT TO SCALE



Sheet List Table

SHEET NUMBER	SHEET TITLE
C0.0	COVER
C1.0	ABBREVIATIONS LEGEND GENERAL NOTES
C1.1	DETAILS
C1.2	PARCELS AND TRAFFIC CONTROL
C2.0	TOPOGRAPHIC SURVEY
C3.0	REMOVAL PLAN
C3.1	PROPOSED PLAN
C3.2	PROPOSED STORM PLAN & PROFILE
C3.3	PROPOSED RAMP DETAIL AND GRADING PLAN
C4.0	SESC PLAN
PGS 11-15	GIFFELS WEBSTER PLANS FOR REFERENCE ONLY

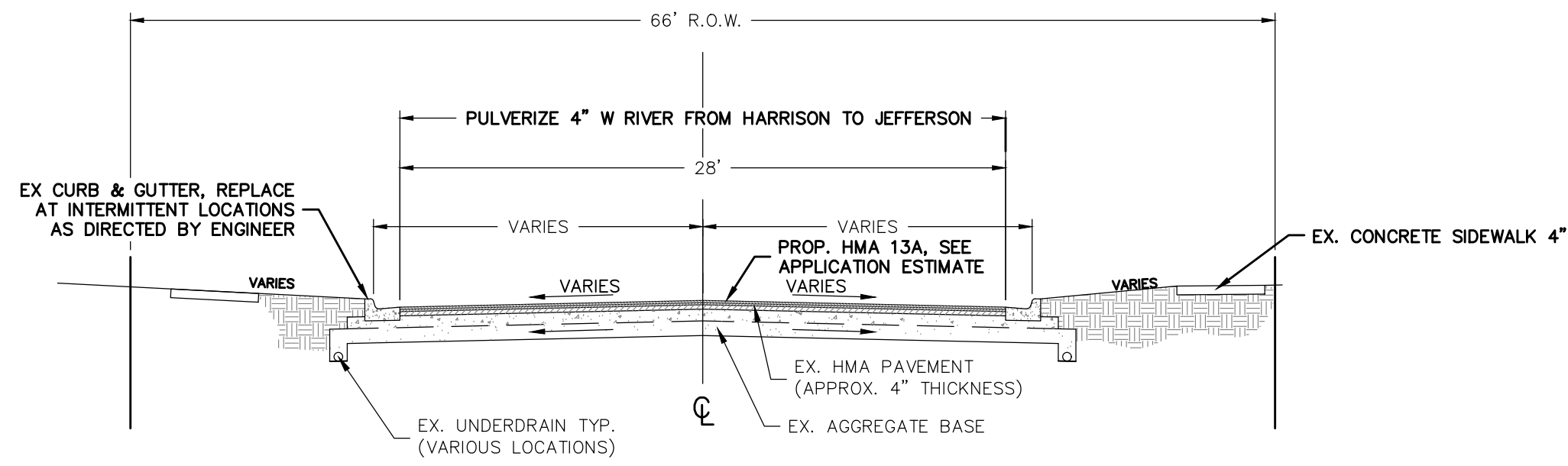
OWNER CONTACT INFORMATION
CITY OF GRAND LEDGE
CONTACT: DAVID GUTCHES
310 GREENWOOD ST
GRAND LEDGE, MICHIGAN 48837
PH: 517-627-2149
FX:
EMAIL: DGUTCHES@CITYOFGRANDLEDGE.COM

WOLVERINE
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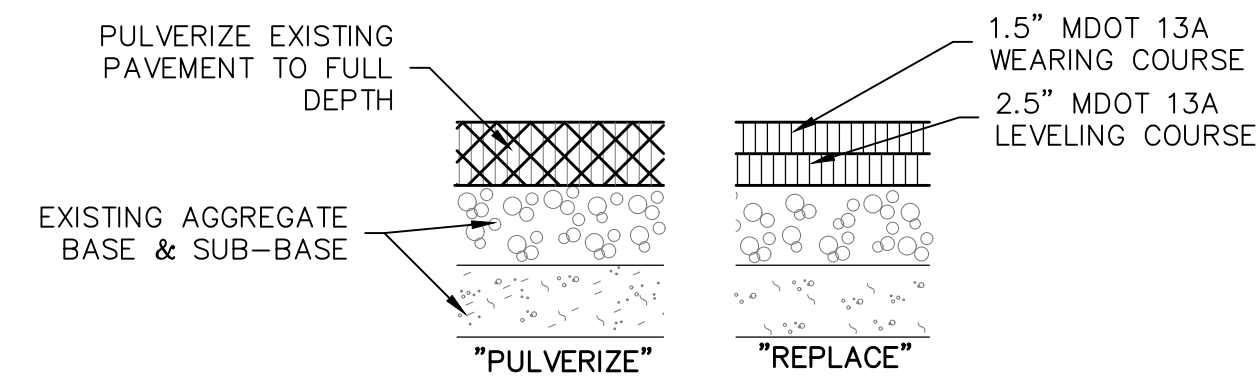
BID SET

RIVER AND HARRISON STREETS\IMPROVEMENTS 24-0013



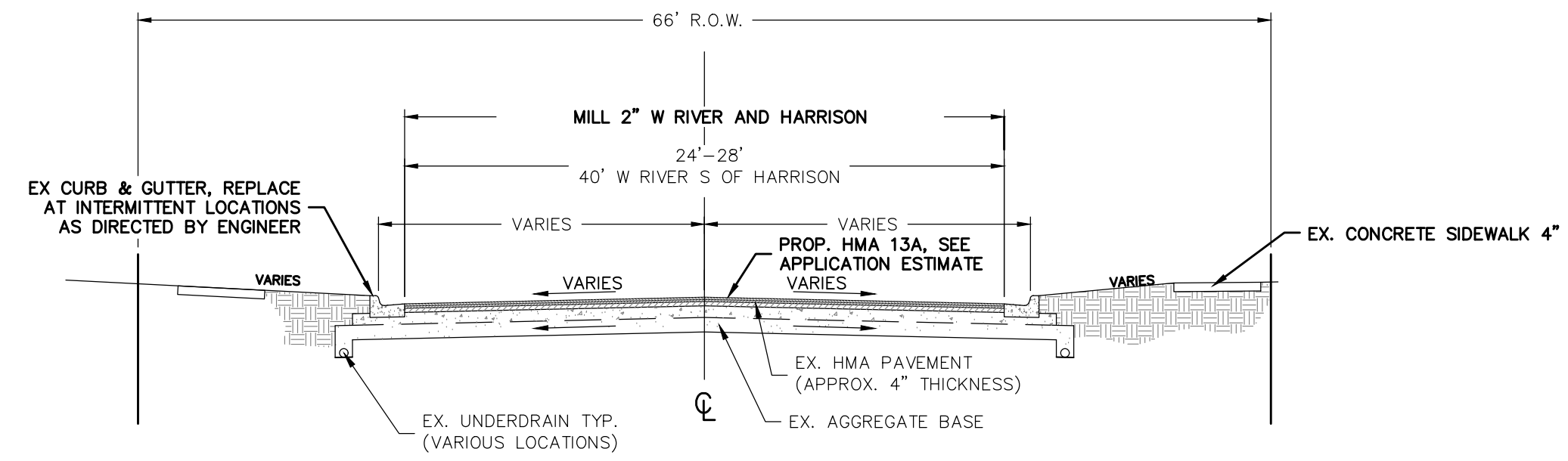
PROPOSED TYPICAL SECTION
W RIVER AND HARRISON ST
STA: 3+75 TO 9+44

WEST RIVER ST HARRISON TO JEFFERSON PROPOSED HMA APPLICATION ESTIMATE				
IDENT NO.	ITEM	RATE LBS PER SYD	PERFORMANCE GRADE	REMARKS
13A	HMA	165	PG 58-28	TOP COURSE (AWI 220)
13A	HMA	275	PG 58-28	LEVELING COURSE



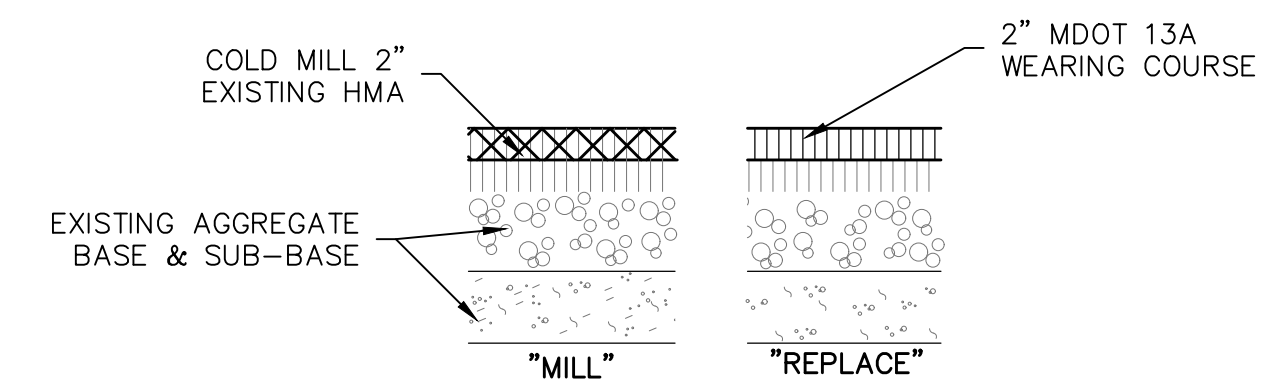
NOTE: DEPTH REMOVED FROM PULVERIZED SECTION MUST ACCOMMODATE "REPLACE" SECTION ABOVE WITH 4" BIT. FINISH GRADE SHALL MATCH EXISTING.

1
C1.1 PULVERIZE & REPLACE SECTION
W RIVER ST.
NOT TO SCALE



PROPOSED TYPICAL SECTION
W RIVER AND HARRISON ST
STA: 0+00 TO 4+52 HARRISON
STA: 0+00 TO 3+75 W RIVER

W RIVER ST AND HARRISON ST PROPOSED HMA APPLICATION ESTIMATE				
IDENT NO.	ITEM	RATE LBS PER SYD	PERFORMANCE GRADE	REMARKS
13A	HMA	220	PG 58-28	TOP COURSE (AWI 220)



NOTE: DEPTH REMOVED FROM MILLED SECTION MUST ACCOMMODATE "REPLACE" SECTION ABOVE WITH 2" BIT. FINISH GRADE SHALL MATCH EXISTING.

2
C1.1 MILL & REPLACE SECTION
W RIVER ST. AND HARRISON ST.
NOT TO SCALE

Linear Trench Grates Heavy Duty Trench Drainage

6950 TRENCH GRATE, FRAME AND COVER SERIES

Heavy Duty, Type A
Bolted or unbolted (standard)

Features	Grate	Frame Series	Lock Type	Other
Heavy Duty, Type A Holes in frame for rebar Bolted or unbolted Standard 24\"/>	Ductile or gray iron	Angle style (bolted or unbolted) Gray or ductile iron	Stainless steel 1/2\"/>	Caution: Do not disassemble bolted grates or covers before setting sections in concrete.

Series Number	A Grate Width	B Seat Depth	C Trench Width	Open Area Sq. In./Ft
6951	8	1 1/2	6	23
6952	10	1 1/2	8	34
6953	12	1 1/2	10	45
6954	14	1 1/2	12	56
6955	17	1 1/2	15	70
6956	20	1 1/2	18	89
6957	23	1 1/2	21	106
6958	26	1 1/2	24	122

Note: All dimensions are in inches.
*Ductile iron extra heavy duty available. See product drawings for load ratings.

ejco.com 800 628 4653

3
C1.1 TRENCH DRAIN DETAIL
NOT TO SCALE

REVISION	DATE	DESCRIPTION

WOLVERINE
Engineers & Surveyors, Inc.
312 North Street
Mason, Michigan 48854
Ph: 317.676.9200
F: 317.676.9396
http://www.wolvenj.com

PROJECT: RIVER AND HARRISON STREETS RECONSTRUCTION
CITY OF GRAND LEDGE
EATON COUNTY, MICHIGAN

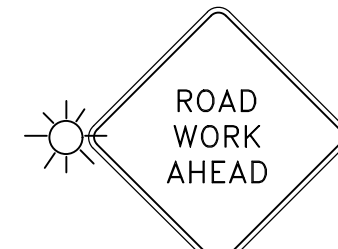

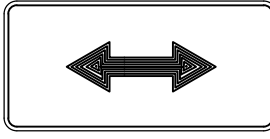
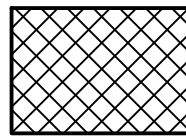


APPROVED: DBH
CHECKED: DBH
DRAWN: MOC
JOB NO.: 24-0013
DATE: 4/25/2024
SCALE: NO SCALE
SHEET NO.: C1.1

SHEET TITLE: DETAILS

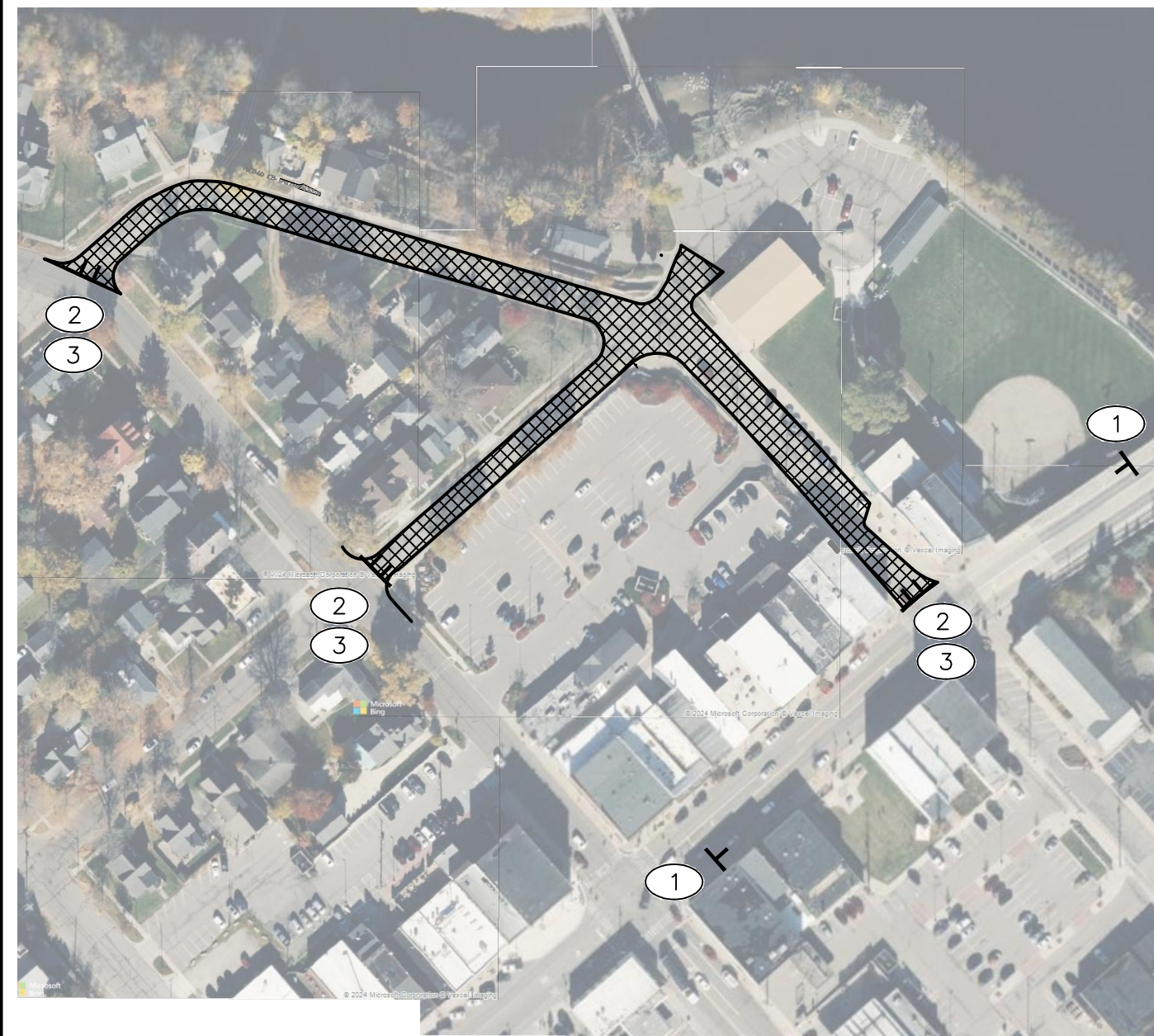
S:\Projects\2024\Engineering Projects\24-0013 City Of Grand Ledge River And Harrison Streets\CD\DWG\C1.2 PARCELS AND TRAFFIC CONTROL.dwg, Thursday, April 25, 2024 3:57:44 PM, Coleb A. Neff

LEGEND

"FOR REFERENCE ONLY"

-  ROAD WORK AHEAD
-  ROAD CLOSED TO THRU TRAFFIC
- 
-  ROAD CLOSED OR CONSTRUCTION AREA
-  TYPE III BARRICADE, LIGHTED
-  CONSTRUCTION SIGN

- W20-1 (1)
- R11-4 (2)
- W1-7 (3)
- ROAD CLOSED OR CONSTRUCTION AREA
- TYPE III BARRICADE, LIGHTED
- CONSTRUCTION SIGN



TRAFFIC CONTROL PLAN
1" = 150'

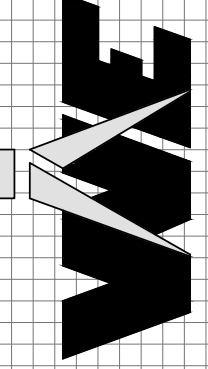


NOTE:
-CONTRACTOR SHALL MAINTAIN ACCESS TO PARKING LOTS DURING CONSTRUCTION.
-CONTRACTOR SHALL MAINTAIN PEDESTRIAN TRAFFIC AT ALL TIMES.

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REVISION	DATE	DRAWN	DESCRIPTION

WOLVERINE
Engineers & Surveyors, Inc.
312 North Street
Mason, Michigan 48854
Ph: 317.676.9200
Fx: 317.676.9396
http://www.wolentg.com



BID SET

PROJECT: RIVER AND HARRISON STREETS RECONSTRUCTION
CITY OF GRAND LEDGE
EATON COUNTY, MICHIGAN
SHEET TITLE: PARCELS AND TRAFFIC CONTROL

APPROVED	DBH
CHECKED	DBH
DRAWN	MOC
JOB NO.	24-0013
DATE	4/25/2024
SCALE	1" = 50'
SHEET NO.	C1.2

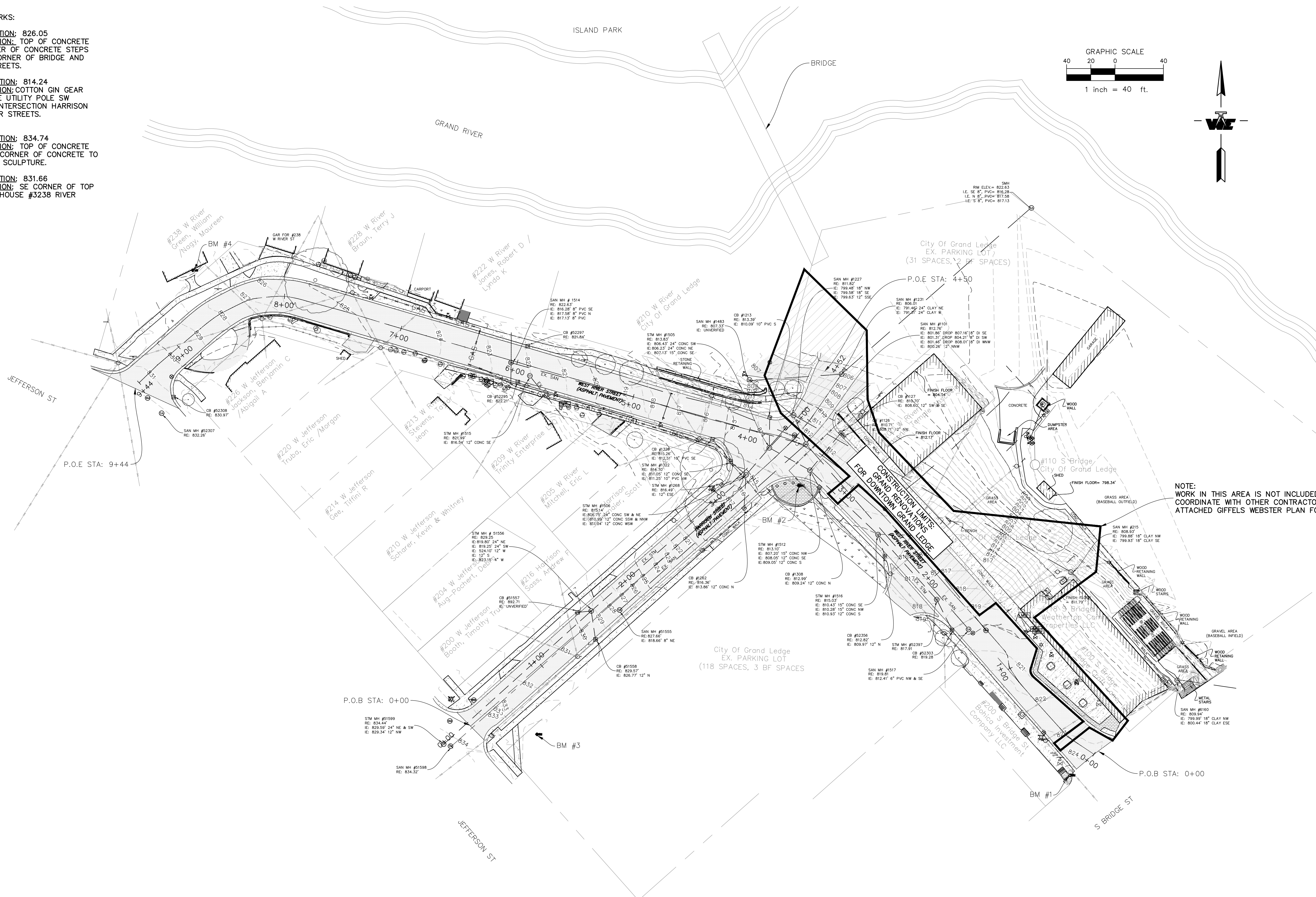
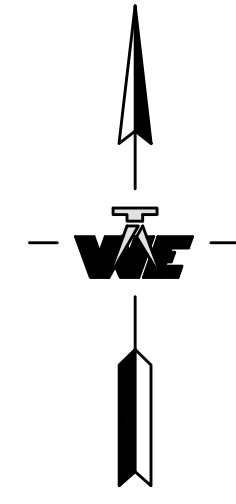
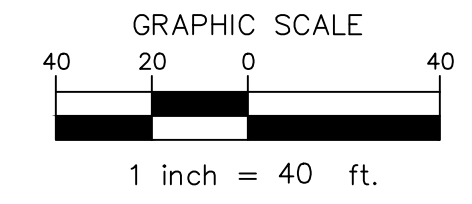
BENCHMARKS:

#1 ELEVATION: 826.05
LOCATION: TOP OF CONCRETE SE CORNER OF CONCRETE STEPS AT NW CORNER OF BRIDGE AND RIVER STREETS.

#2 ELEVATION: 814.24
LOCATION: COTTON GIN GEAR EAST SIDE UTILITY POLE SW CORNER INTERSECTION HARRISON AND RIVER STREETS.

#3 ELEVATION: 834.74
LOCATION: TOP OF CONCRETE AT EAST CORNER OF CONCRETE TO AIRPLANE SCULPTURE.

#4 ELEVATION: 831.66
LOCATION: SE CORNER OF TOP STEP AT HOUSE #3238 RIVER STREET.



NOTE: WORK IN THIS AREA IS NOT INCLUDED IN THIS CONTRACT, COORDINATE WITH OTHER CONTRACTORS AS NEEDED. SEE ATTACHED GIFFELS WEBSTER PLAN FOR REFERENCE ONLY.

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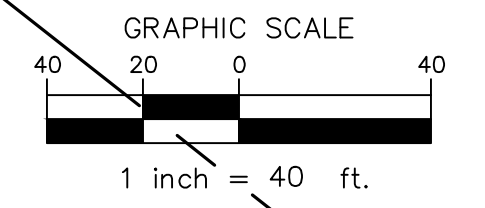
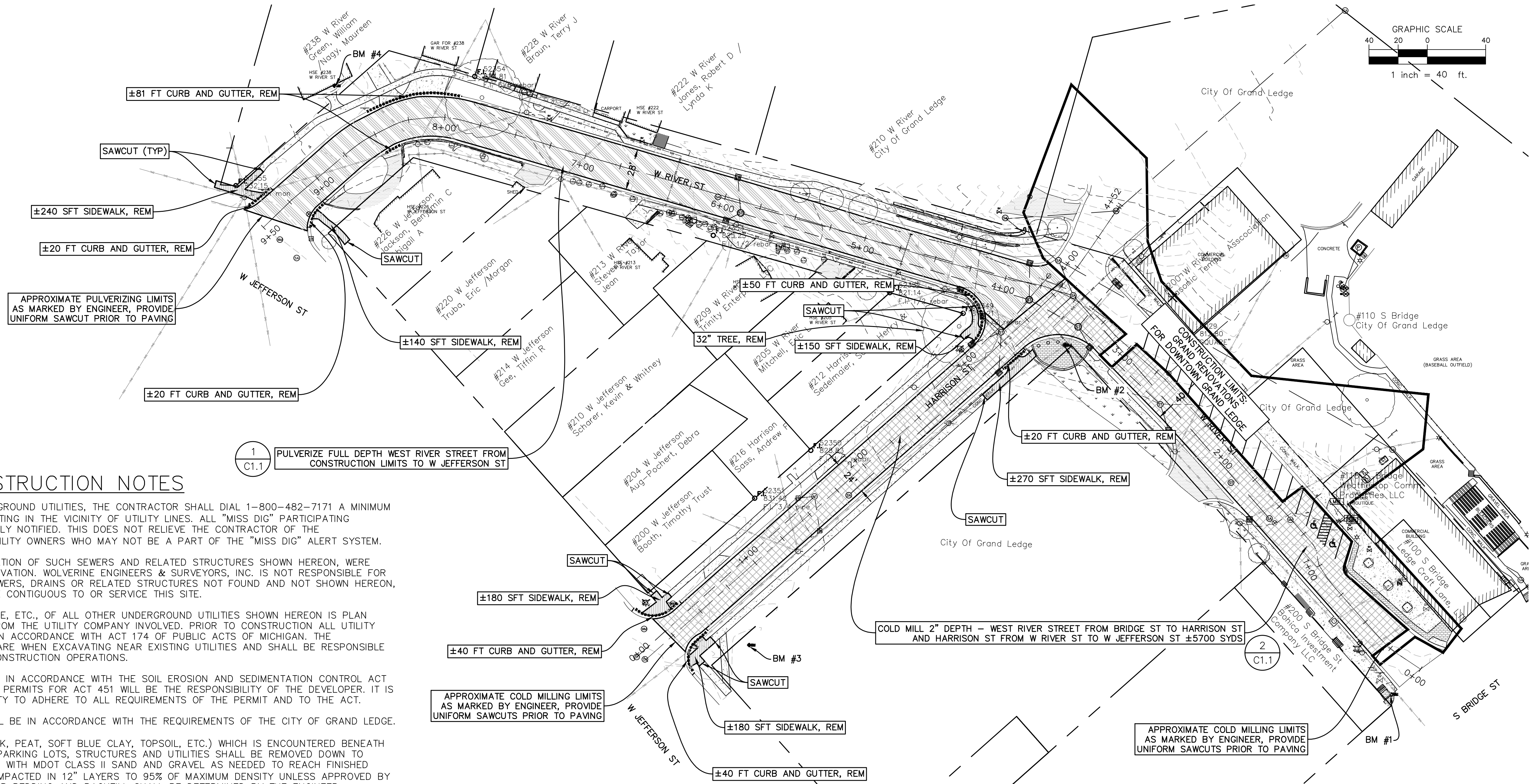
REVISION	DATE	DESCRIPTION

WOLVERINE
 Engineers & Surveyors, Inc.
 312 North Street
 Mason, Michigan 48854
 Ph: 317.676.9200
 Fax: 317.676.9396
<http://www.wolvenj.com>

RIVER AND HARRISON STREETS RECONSTRUCTION
CITY OF GRAND LEDGE
EATON COUNTY, MICHIGAN
TOPOGRAPHIC SURVEY

PROJECT	APPROVED	DBH
	CHECKED	DBH
	DRAWN	MOC
JOB NO.	24-0013	
DATE	4/25/2024	
SCALE	1" = 40'	
SHEET NO.	C2.0	

- BENCHMARKS:**
- #1 ELEVATION: 826.05
WITNESS: TOP OF CONCRETE SE CORNER OF CONCRETE STEPS AT NW CORNER OF BRIDGE AND RIVER STREETS.
 - #2 ELEVATION: 814.24
WITNESS: COTTON GIN GEAR EAST SIDE UTILITY POLE SW CORNER INTERSECTION HARRISON AND RIVER STREETS.
 - #3 ELEVATION: 834.74
WITNESS: TOP OF CONCRETE AT EAST CORNER OF CONCRETE TO AIRPLANE SCULPTURE.
 - #4 ELEVATION: 831.66
WITNESS: SE CORNER OF TOP STEP AT HOUSE #3238 RIVER STREET.



GENERAL CONSTRUCTION NOTES

1. FOR THE PROTECTION OF UNDERGROUND UTILITIES, THE CONTRACTOR SHALL DIAL 1-800-482-7171 A MINIMUM OF 72 HOURS PRIOR TO EXCAVATING IN THE VICINITY OF UTILITY LINES. ALL "MISS DIG" PARTICIPATING MEMBERS WILL THUS BE ROUTINELY NOTIFIED. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING UTILITY OWNERS WHO MAY NOT BE A PART OF THE "MISS DIG" ALERT SYSTEM.
2. THE LOCATIONS, SIZE AND ELEVATION OF SUCH SEWERS AND RELATED STRUCTURES SHOWN HEREON, WERE OBTAINED THROUGH FIELD OBSERVATION. WOLVERINE ENGINEERS & SURVEYORS, INC. IS NOT RESPONSIBLE FOR INFORMATION ON ANY OTHER SEWERS, DRAINS OR RELATED STRUCTURES NOT FOUND AND NOT SHOWN HEREON, THAT MAY CROSS, PARALLEL, LIE CONTIGUOUS TO OR SERVICE THIS SITE.
3. THE INFORMATION ON DEPTH, SIZE, ETC., OF ALL OTHER UNDERGROUND UTILITIES SHOWN HEREON IS PLAN INFORMATION ONLY, OBTAINED FROM THE UTILITY COMPANY INVOLVED. PRIOR TO CONSTRUCTION ALL UTILITY COMPANIES SHALL BE NOTIFIED IN ACCORDANCE WITH ACT 174 OF PUBLIC ACTS OF MICHIGAN. THE CONTRACTOR SHALL EXERCISE CARE WHEN EXCAVATING NEAR EXISTING UTILITIES AND SHALL BE RESPONSIBLE FOR ALL DAMAGE CAUSED BY CONSTRUCTION OPERATIONS.
4. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE SOIL EROSION AND SEDIMENTATION CONTROL ACT OF 1994, ACT 451 OF MICHIGAN. PERMITS FOR ACT 451 WILL BE THE RESPONSIBILITY OF THE DEVELOPER. IT IS THE CONTRACTORS RESPONSIBILITY TO ADHERE TO ALL REQUIREMENTS OF THE PERMIT AND TO THE ACT.
5. TRAVELWAY CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY OF GRAND LEDGE.
6. ANY UNSTABLE SOIL (MARL, MUCK, PEAT, SOFT BLUE CLAY, TOPSOIL, ETC.) WHICH IS ENCOUNTERED BENEATH PROPOSED BUILDINGS, DRIVES, PARKING LOTS, STRUCTURES AND UTILITIES SHALL BE REMOVED DOWN TO SOUND SUBSOIL AND BACKFILLED WITH MDOT CLASS II SAND AND GRAVEL AS NEEDED TO REACH FINISHED GRADE. SUCH FILL SHALL BE COMPACTED IN 12" LAYERS TO 95% OF MAXIMUM DENSITY UNLESS APPROVED BY THE ENGINEER. THE MATERIAL FOR BEDDING AND BACKFILL SHALL BE DETERMINED BY THE ENGINEER.
7. THE COMPACTION OF TRENCHES WITHIN THE ROADWAY SHALL BE TO 95% MAXIMUM DENSITY. EQUIPMENT SUCH AS A SMALL DOZER IN THE TRENCHES AND A HOE-PACK AROUND THE STRUCTURES WILL BE REQUIRED, OR EQUIPMENT CAPABLE OF REACHING 95% MAXIMUM DENSITY.
8. A MINIMUM OF 10' HORIZONTAL CLEARANCE AND 18" VERTICAL CLEARANCE MUST BE MAINTAINED BETWEEN SEWER AND WATER PIPES.
9. ALL EXISTING DRIVEWAYS, ROADS, WALKS AND YARDS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED BY THE CONTRACTOR TO ITS ORIGINAL CONDITION.
10. DUST CONTROL IS THE CONTRACTOR'S RESPONSIBILITY AND MUST BE MAINTAINED AS DIRECTED BY THE ENGINEER.
11. ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE COVERED BY 3" OF TOPSOIL, SEEDED AND MULCHED.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR CONSTRUCTION.
13. DRIVEWAYS MUST BE LOCATED TO AVOID CONFLICT WITH CATCH BASINS THAT DO NOT FALL ON THE EXTENSION OF A LOT LINE.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING CURB CUTS FOR SIDEWALKS AND DRIVEWAYS.
15. STORAGE OF EQUIPMENT OR MATERIALS WITHIN MDOT RIGHT-OF-WAY WILL NOT BE PERMITTED.
16. SIGN COVERS SHALL BE PLACED OVER EXISTING REGULATORY, WARNING, AND CONSTRUCTION SIGNS THAT ARE NOT APPLICABLE DURING CONSTRUCTION. THE SIGN COVERS SHALL BE IN ACCORDANCE WITH MDOT 2020 STANDARD SPECIFICATIONS FOR CONSTRUCTION.
17. THE CONTRACTOR IS NOT PERMITTED TO HAVE A "FULL WIDTH ROADWAY" CLOSURE AT ANY TIME.
18. MINIMUM LANE WIDTHS DURING CONSTRUCTION ARE 10 FT WITH MINIMUM 1 FT SHY DISTANCES TO TRAFFIC CONTROL/CHANNELIZING DEVICES AND ANY OTHER OBSTRUCTIONS. ALL ROADWAYS WILL BE RESTORED TO TWO 12 FT TRAVEL LANES, ONE IN EACH DIRECTION OF TRAVEL, AT THE END OF EACH WORK DAY.
19. THE SIGNING SEQUENCE FOR FLAG CONTROL AT UN-SIGNALIZED INTERSECTIONS AND DRIVEWAYS SHALL BE AS OUTLINED IN PART 6 OF THE MMUTCD.

1
C1.1
PULVERIZE FULL DEPTH WEST RIVER STREET FROM CONSTRUCTION LIMITS TO W JEFFERSON ST

2
C1.1
COLD MILL 2" DEPTH - WEST RIVER STREET FROM BRIDGE ST TO HARRISON ST AND HARRISON ST FROM W RIVER ST TO W JEFFERSON ST ±5700 SYDS

APPROXIMATE COLD MILLING LIMITS AS MARKED BY ENGINEER, PROVIDE UNIFORM SAWCUTS PRIOR TO PAVING

APPROXIMATE COLD MILLING LIMITS AS MARKED BY ENGINEER, PROVIDE UNIFORM SAWCUTS PRIOR TO PAVING

NOTE:
MILLINGS TO BE RETAINED BY OWNER
13256 LAWSON ROAD GRAND LEDGE, MI
GRAND LEDGE DPW GARAGE

REVISION	DATE	DESCRIPTION

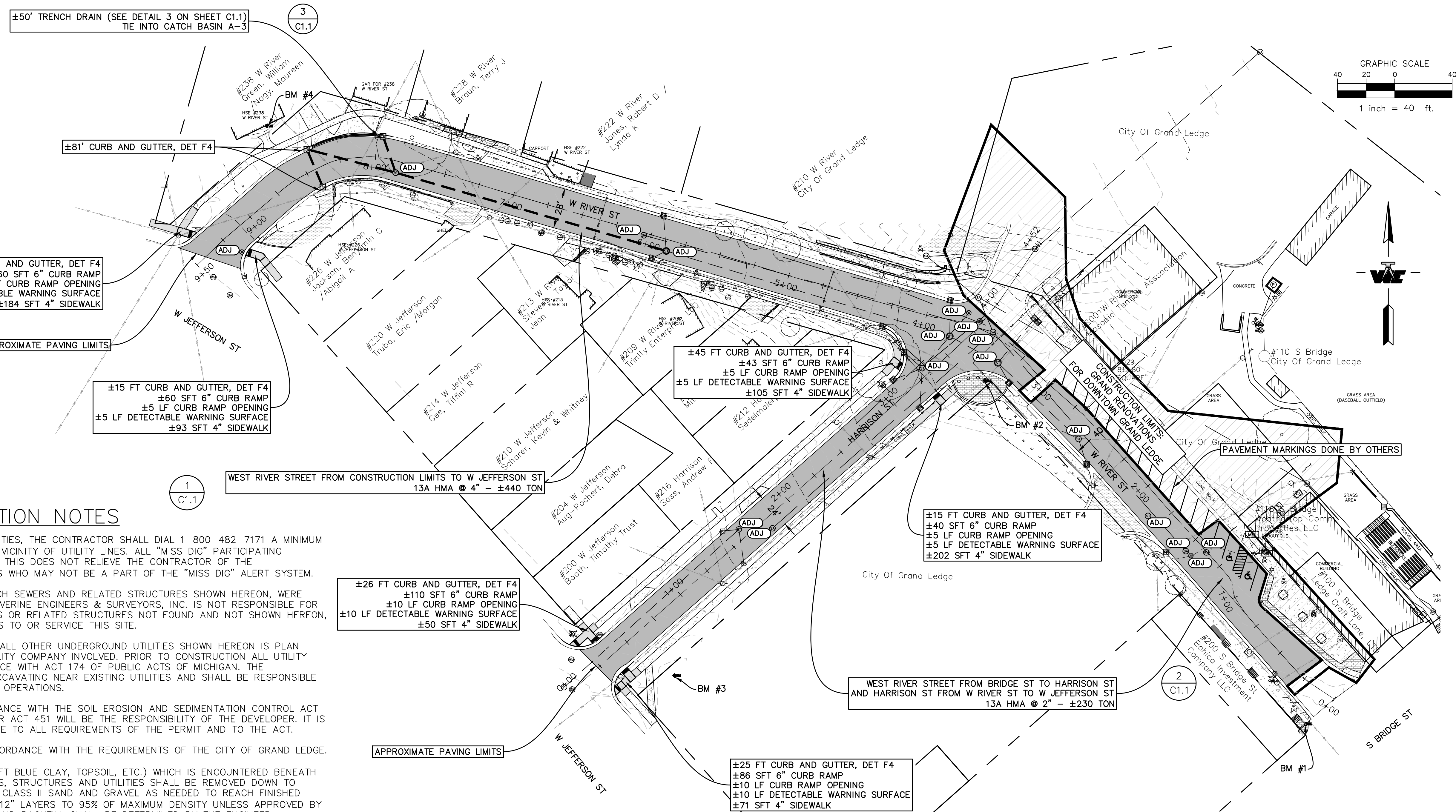
WOLVERINE
Engineers & Surveyors, Inc.
312 North Street
Mason, Michigan 48854
Ph: 317.676.9200
Fax: 317.676.9396
http://www.wolvenet.com

REMOVAL PLAN

RIVER AND HARRISON STREETS RECONSTRUCTION
CITY OF GRAND LEDGE
EATON COUNTY, MICHIGAN

PROJECT	APPROVED	DBH
	CHECKED	DBH
	DRAWN	MOC
JOB NO.	24-0013	
DATE	4/25/2024	
SCALE	1" = 40'	
SHEET NO.	C3.0	

- BENCHMARKS:**
- #1 ELEVATION: 826.05
WITNESS: TOP OF CONCRETE SE CORNER OF CONCRETE STEPS AT NW CORNER OF BRIDGE AND RIVER STREETS.
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WITNESS: COTTON GIN GEAR EAST SIDE UTILITY POLE SW CORNER INTERSECTION HARRISON AND RIVER STREETS.
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WITNESS: SE CORNER OF TOP STEP AT HOUSE #3238 RIVER STREET.



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19. THE SIGNING SEQUENCE FOR FLAG CONTROL AT UN-SIGNALIZED INTERSECTIONS AND DRIVEWAYS SHALL BE AS OUTLINED IN PART 6 OF THE MMUTCD.

NOTE:
- PROPOSED SIDEWALK AND RAMPS ARE TO FOLLOW MDOT 2020 STANDARD SPECIFICATIONS FOR CONSTRUCTION

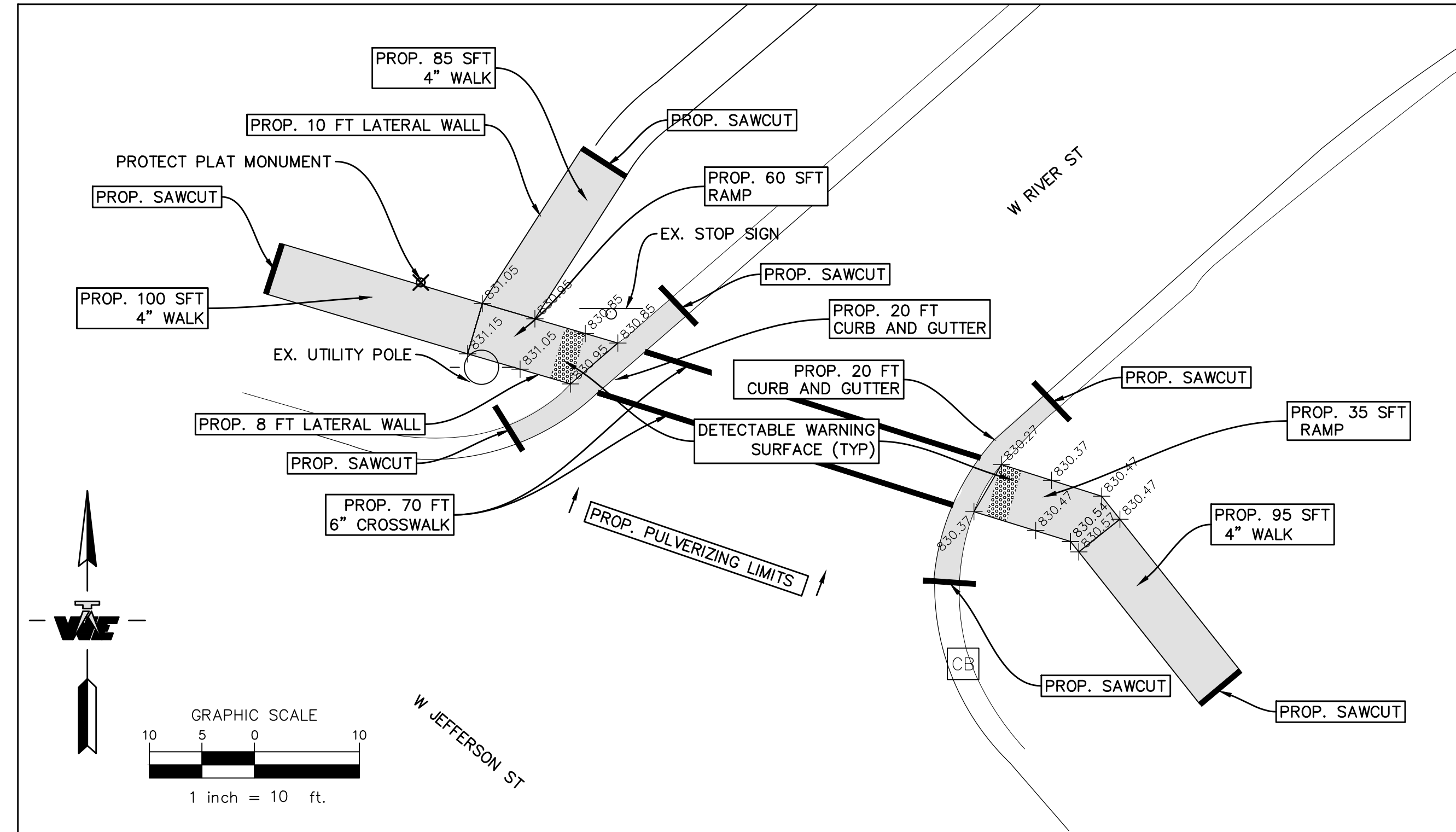
REVISION	DATE	DESCRIPTION

WOLVERINE
Engineers & Surveyors, Inc.
312 North Street
Mason, Michigan 48854
Ph: 317.676.9200
Fax: 317.676.9396
http://www.wolveneg.com

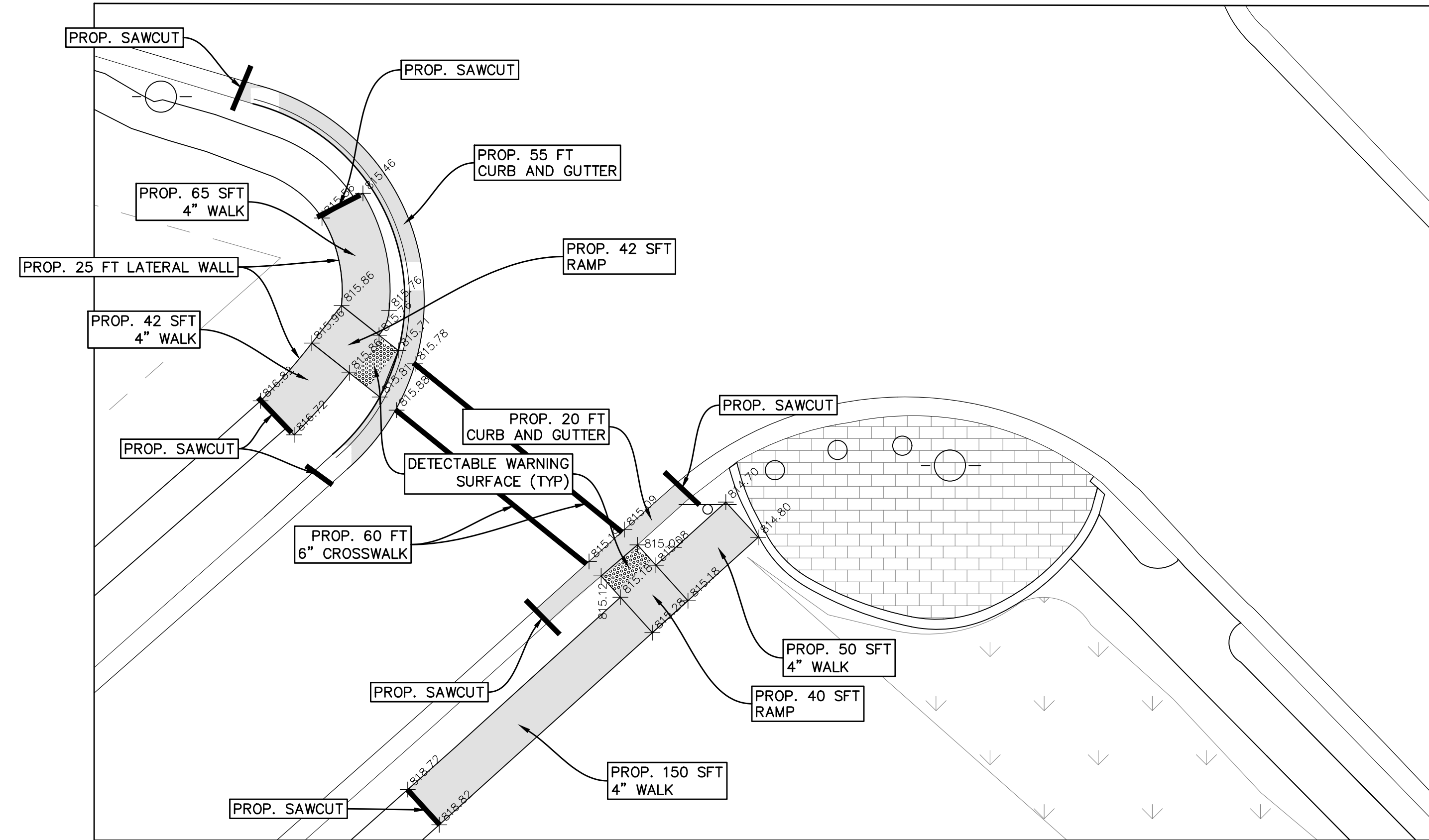
RIVER AND HARRISON STREETS RECONSTRUCTION
CITY OF GRAND LEDGE
EATON COUNTY, MICHIGAN
PROPOSED PLAN

APPROVED	DBH
CHECKED	DBH
DRAWN	MOC
JOB NO.	24-0013
DATE	4/25/2024
SCALE	1" = 40'
SHEET NO.	C3.1

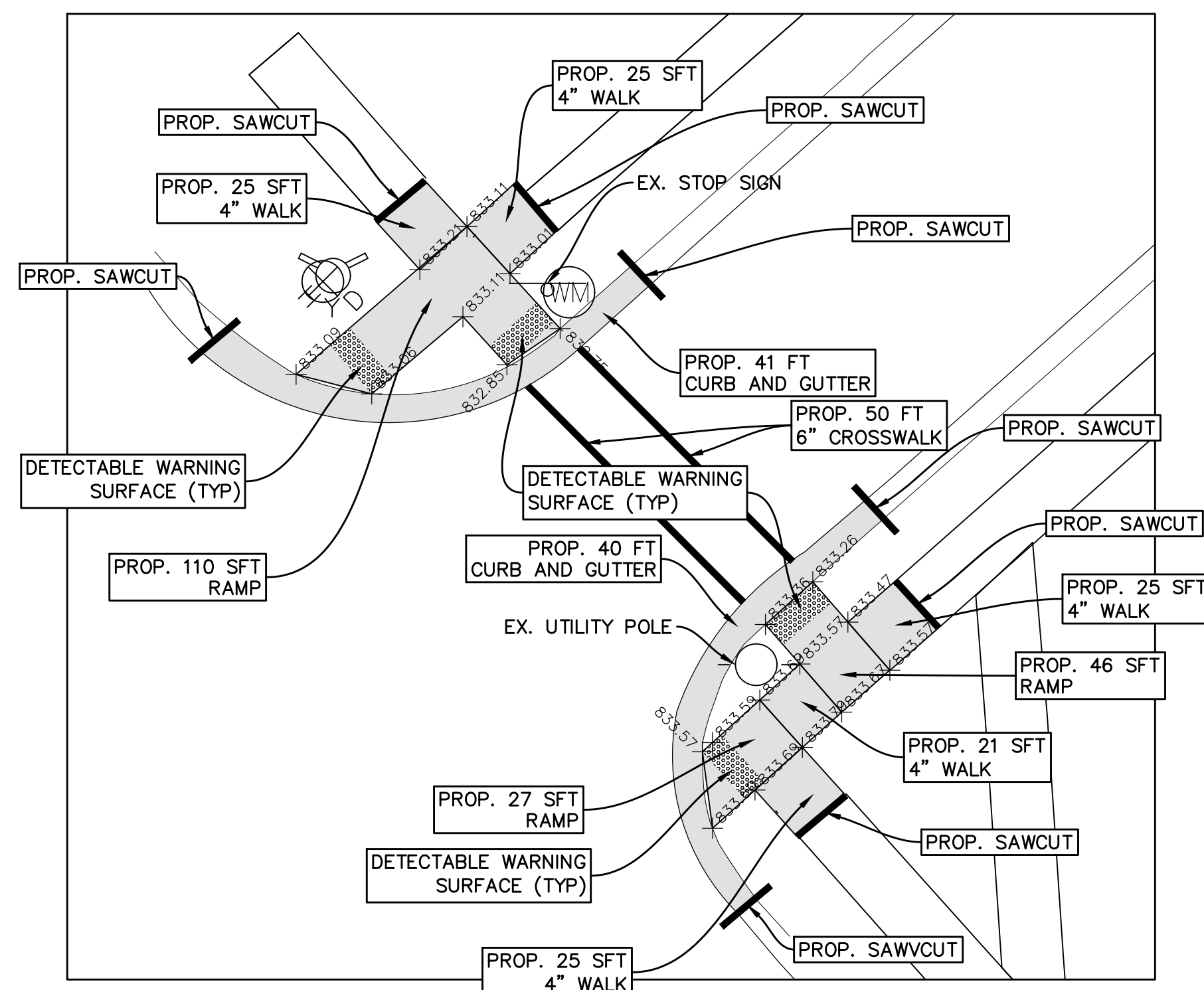
PROP. RAMP DETAIL AND GRADING PLAN AT NORTHEAST QUADRANT OF INTERSECTION OF W RIVER AND W JEFFERSON



PROP. RAMP DETAIL AND GRADING PLAN AT SOUTHWEST QUADRANT OF INTERSECTION OF W RIVER AND HARRISON



PROP. RAMP DETAIL AND GRADING PLAN AT NORTHWEST QUADRANT OF INTERSECTION OF HARRISON AND W JEFFERSON



S:\Projects\2024\Engineering Projects\24-0013 City of Grand Ledge River and Harrison Streets\C3.3 PROPOSED RAMPS GRADING PLAN.dwg, Thursday, April 25, 2024, 3:58:37 PM, Caleb A. Neff

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REVISION	DATE	DESCRIPTION

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BID SET

PROJECT: RIVER AND HARRISON STREETS RECONSTRUCTION
CITY OF GRAND LEDGE
EATON COUNTY, MICHIGAN

SHEET TITLE: PROPOSED RAMP DETAIL AND GRADING PLAN

APPROVED: DBH
CHECKED: DBH
DRAWN: MOC

JOB NO.: 24-0013
DATE: 4/25/2024
SCALE: 1"=10'
SHEET NO.: C3.3

SOIL EROSION NOTES:

1. THE SOIL EROSION PERMIT IS TO BE POSTED AT THE CONSTRUCTION ENTRANCE OF THE SITE UNTIL THE LAND IS PERMANENTLY STABILIZED AND THE PERMIT IS CLOSED BY THE DRAIN COMMISSIONER. FAILURE TO HAVE THE PERMIT POSTED COULD RESULT IN A CEASE AND DESIST ORDER. IT IS RECOMMENDED THAT THE PERMIT BE LAMINATED TO WITHSTAND THE WEATHER.
2. THE MAINTENANCE PROGRAM FOR ALL TEMPORARY AND PERMANENT SOIL EROSION CONTROL MEASURES, INCLUDING MAINTENANCE RESPONSIBILITIES, SHALL BECOME A PART OF ANY SALES OR EXCHANGE AGREEMENT FOR THE LAND ON WHICH PERMANENT SOIL EROSION CONTROL MEASURES ARE LOCATED.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADHERING TO ALL THE REQUIREMENTS OF THE EATON COUNTY DRAIN COMMISSIONER'S SOIL EROSION PERMIT.
4. AN EATON COUNTY DRAIN OFFICE INSPECTOR MUST BE PRESENT DURING ANY WORK ON STORM WATER STRUCTURES THAT ARE TO BE PUBLICLY DEDICATED OR WITHIN AN EASEMENT OR THOSE STRUCTURES DEEMED TO BE UNDER THE JURISDICTION OF THE DRAIN COMMISSIONER. THE EATON COUNTY DRAIN OFFICE (KEVIN KALMBACH, 543-3886) IS TO BE NOTIFIED NO LESS THAN THREE BUSINESS DAYS IN ADVANCE OF THE WORK TO ARRANGE FOR AN INSPECTOR. EVERY ATTEMPT TO ACCOMMODATE PERMITTEE'S SCHEDULE WILL BE MADE WHEN NOTIFIED OF THE NEED FOR AN INSPECTOR, HOWEVER, FAILURE TO HAVE AN INSPECTOR AVAILABLE ON ANY PARTICULAR REQUESTED DAY DOES NOT ABSOLVE THE PERMITTEE OF THE REQUIREMENT TO HAVE AN INSPECTOR PRESENT DURING THE PERMITTED WORK.
5. PRIOR TO START OF CONSTRUCTION, SUBMIT THE MOBILE PHONE NUMBER FOR THE ON-SITE CONTACT PERSON TO THE ATTENTION OF KEVIN KALMBACH.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF ALL TEMPORARY SOIL EROSION CONTROL MEASURES PRIOR TO OR AT THE COMMENCEMENT OF CONSTRUCTION ACTIVITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING ALL SOIL EROSION CONTROL MEASURES DAILY FOR EFFECTIVENESS AND FOR REPAIR, AS NEEDED. AN EATON COUNTY DRAIN OFFICE INSPECTOR IS TO VERIFY PROPER INSTALLATION OF THESE MEASURES PRIOR TO EARTH DISTURBANCE.
7. STOCKPILE AREAS ARE TO BE LOCATED AT LEAST 50 FEET FROM SENSITIVE AREAS SUCH AS STREAMS, LAKES, AND WETLANDS AND AT LEAST 50 FEET FROM ALL PROPERTY BOUNDARIES. STOCKPILE AREAS SHALL BE TEMPORARILY STABILIZED WITH A COVER CROP OR GEO-MEMBRANE IF LEFT INACTIVE FOR GREATER THAN 30 DAYS.
8. PERMITTEE MUST STRICTLY MAINTAIN DUST CONTROL AT ALL TIMES DURING CONSTRUCTION AND UNTIL THE SOIL EROSION PERMIT IS CLOSED BY THE EATON COUNTY DRAIN COMMISSIONER.
9. ANY CATCH BASIN LOCATED ON-SITE OR WITHIN 50 FEET OF THE CONSTRUCTION DISTURBANCE SHALL HAVE TEMPORARY INLET PROTECTION. FILTER BAGS SUCH AS A SILT SACK OR EQUIVALENT ARE EATON COUNTY DRAIN COMMISSION APPROVED METHODS FOR INLET PROTECTION.
10. ALL TEMPORARY SOIL EROSION CONTROL MEASURES WILL BE REMOVED WHEN THE DRAIN OFFICE CLOSURES THE PERMIT.
11. THE DETENTION BASIN AND ALL AREAS OF DISTURBANCE ADJACENT TO REGULATED WETLANDS, SHALL HAVE TOPSOIL PLACED (6 INCHES), SEEDING (DORMANT SEEDING IF SEEDING IS DONE IN LATE FALL OR WINTER), SILT STOP APPLIED, AND EROSION CONTROL MATTING APPROPRIATE FOR THE SLOPE CONDITIONS (NORTH AMERICAN GREEN S1508N OR EQUIVALENT) INSTALLED WITHIN 5 DAYS OF FINAL GRADING. BASINS ARE TO BE STABILIZED (VEGETATED) PRIOR TO ANY DISCHARGE OF STORM WATER INTO OR FROM A BASIN INTO THE WATERS OF THE STATE.
12. STORM SEWER EASEMENTS SHALL REMAIN FREE OF FENCES, EQUIPMENT, ETC. SO AS TO ALLOW MAINTENANCE VEHICLES TO SERVICE THE STORM SEWER SYSTEM. MOVING SHALL BE RESTRICTED TO NO CLOSER THAN 10 FEET AWAY FROM THE EDGE OF THE DETENTION BASIN.
13. DIRT TRACKED OFF SITE ONTO PUBLIC ROADS SHALL BE PROMPTLY REMOVED, NO LESS THAN ON A DAILY BASIS.
14. SEEDING AND MULCHING WITHIN EXISTING OR PROPOSED DRAIN RIGHTS-OF-WAY ARE TO FOLLOW EATON COUNTY DRAIN OFFICE GUIDELINES FOR NATIVE VEGETATION (CONTACT SOIL EROSION ENFORCEMENT OFFICER KEVIN KALMBACH FOR A COPY OF THE GUIDELINES). SEEDING AND MULCHING SHALL FOLLOW GENERALLY ACCEPTED GUIDELINES AS OUTLINED IN THE MDCO'S "GUIDEBOOK OF BMP'S FOR MICHIGAN WATERSHEDS" AND/OR THE MACDC 2006 SOIL EROSION AND SEDIMENTATION CONTROL PROCEDURES MANUAL EXCEPT AS AMENDED IN WRITING BY THE EATON COUNTY DRAIN COMMISSIONER'S OFFICE. REFER TO THE SEEDING CHART FOR SEED MIXTURES, APPLICATION RATES, AND SEEDING SCHEDULE.
15. RIP RAP OVER GEOTEXTILE FABRIC SHALL BE PROVIDED AT THE DOWNSTREAM SIDE OF ALL CULVERTS AND STORM SEWERS AND ON DITCH CENTERLINE SLOPES STEEPER THAN TWO PERCENT (2%) AND AS INDICATED ON THE PLANS. RIP RAP MUST BE NATURAL STONE IN ACCORDANCE WITH EATON COUNTY DRAIN COMMISSIONER'S REQUIREMENTS.
16. SURPLUS SOIL SHALL BE BERMED ON THE SITE IN AN AREA OUTSIDE OF THE PAVED PARKING AND THE DETENTION BASIN. BERMS SHALL NOT EXCEED GRADING PERIMETERS AS SHOWN ON THE PLANS OVER EXISTING OR PROPOSED BURIED UTILITIES.
17. IF THE PROPERTY SUBJECT TO THE SOIL EROSION PERMIT IS TRANSFERRED, THE PERMIT, INCLUDING ALL PERMIT OBLIGATIONS AND CONDITIONS, ARE TRANSFERRED WITH THE PROPERTY ALONG WITH THE RESPONSIBILITY FOR ANY VIOLATIONS OF THE PERMIT THAT EXIST ON THE DATE OF THE TRANSFER OF THE PROPERTY. IF A PARCEL OF THE PROPERTY, BUT NOT THE ENTIRE PROPERTY IS TRANSFERRED, THE PERMIT OBLIGATIONS AND CONDITIONS WITH RESPECT TO THAT PARCEL ARE TRANSFERRED, BUT NOT THE PERMIT, ALONG WITH THE RESPONSIBILITY FOR ANY VIOLATIONS OF THE PERMIT WITH RESPECT TO THAT PARCEL THAT EXIST ON THE DATE OF THE TRANSFER OF THE PARCEL. NOTICE OF PROPERTY OR PARCEL TRANSFERS SHALL BE SUBMITTED TO THE DRAIN OFFICE PRIOR TO TRANSFER AND OTHERWISE SHALL BE IN COMPLIANCE WITH MCL 324.9112.
18. APPROVAL OF THE SOIL EROSION PERMIT DOES NOT AUTHORIZE CONNECTION TO ANY COUNTY DRAIN, OCCUPATION OF ANY EASEMENT OF A COUNTY DRAIN, OR CROSSING OF ANY COUNTY DRAIN. A SEPARATE TAP-IN PERMIT, OCCUPATION LICENSE, OR CROSSING PERMIT MUST BE ISSUED BY THE DRAIN COMMISSIONER PRIOR TO ANY SUCH WORK. PERMITS TO CROSS OR CONNECT THE COUNTY DRAINS WILL NOT BE ISSUED UNTIL ALL PERMITS ARE ISSUED BY THE MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY (MDEQ) FOR THAT WORK, AND COPIES OF SAME ARE SUBMITTED TO THE DRAIN COMMISSIONER.
19. APPROVAL OF THE SOIL EROSION PERMIT DOES NOT AUTHORIZE ANY EARTH DISTURBANCE ACTIVITY IN STATE REGULATED WETLANDS UNTIL A PERMIT, OBTAINED FROM THE MDEQ, IS SUBMITTED AUTHORIZING THAT EARTH DISTURBANCE ACTIVITY OR SEDIMENTATION OF THE WETLANDS.
20. APPROVAL OF THE SOIL EROSION PERMIT DOES NOT AUTHORIZE ANY EARTH DISTURBANCE ACTIVITY OFF-SITE UNTIL PERMISSION IS OBTAINED AND SUBMITTED TO THE DRAIN COMMISSION FROM THE LANDOWNERS OF THOSE PROPERTIES ON WHICH THE DISTURBANCE IS TO OCCUR AND A SOIL EROSION PLAN IS SUBMITTED AND APPROVED BY THE DRAIN COMMISSIONER FOR THAT WORK, INCLUDING, BUT NOT LIMITED TO, PLACEMENT OF EXCAVATED MATERIAL FROM THIS SITE.

SOIL EROSION CONTROL METHODS

SOIL EROSION CONTROL METHODS ARE DETAILED USING THE MICHIGAN DEPARTMENT OF MANAGEMENT AND BUDGET KEYING SYSTEM.

TEMPORARY MEASURES - TO BE INSTALLED AND MAINTAINED DURING CONSTRUCTION. REMOVE UPON COMPLETION OF CONSTRUCTION ACTIVITIES. CLOSE OUT SOIL EROSION PERMIT.

PERMANENT MEASURES - TO BE INSTALLED AS PART OF THE CONSTRUCTION PROJECT.

KEY	BEST MANAGEMENT PRACTICES	SYMBOL	WHERE USED
E5	DUST CONTROL		For use on construction sites, unpaved roads, etc. to reduce dust and sedimentation from wind and construction activities.
E6	MULCH		For use in areas subject to erosive surface flows or severe wind or on newly seeded areas.
E7	TEMPORARY SEEDING		Stabilization method utilized on construction sites where earth change has been initiated but not completed within a 2 week period.
E8	PERMANENT SEEDING		Stabilization method utilized on sites where earth change has been completed (final grading attained).
E9	MULCH BLANKETS		On exposed slopes, newly seeded areas, new ditch bottoms, or areas subject to erosion.
E12	RIPRAP		Use along shorelines, waterways, or where concentrated flows occur. Slows velocity, reduces sediment load, and reduces erosion.
E14	ENERGY DISSIPATER		Where the energy transmitted from a concentrated flow of surface runoff is sufficient to erode receiving area or watercourse.

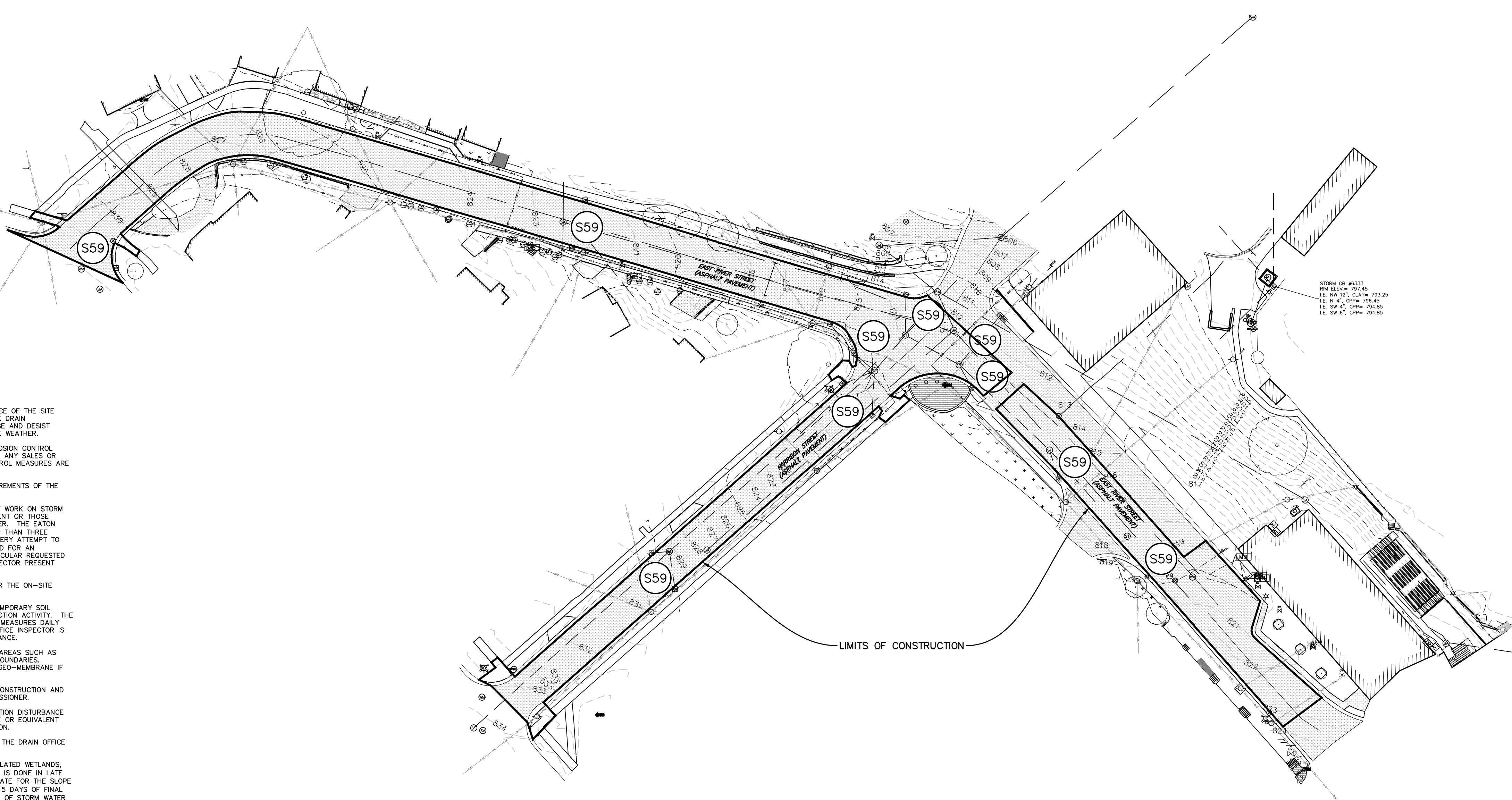
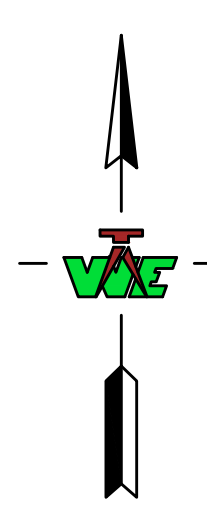
KEY	BEST MANAGEMENT PRACTICES	SYMBOL	WHERE USED
S51	SILT FENCE		Use adjacent to critical areas, to prevent sediment laden sheet flow from entering these areas.
S53	STABILIZED CONSTRUCTION ACCESS		Used at every point where construction traffic enters or leaves a construction site.
S54	TIRE WASH		For use on construction sites where vehicular traffic requires sediment removed from its tires in highly erosive areas.
S58	INLET PROTECTION FABRIC DROP		Use at storm water inlets, especially at construction sites.
S59	INLET PROTECTION FABRIC FENCE		Use at stormwater inlets, especially at construction sites.

SEEDING SCHEDULE

NOVEMBER 1 - APRIL 1	APRIL 1 - JULY 1	JULY 1 - AUGUST 1	AUGUST 1 - NOVEMBER 1
DORMANT SEED WITH HAY MULCH AND TACKIFIER OR HEAVY STRAW BLANKET (PEGGED) SEED MIX A.	SEED MIX A OR B	SEED MIX A OR B, IRRIGATION REQUIRED	SEED MIX A
DATES ARE DEPENDENT ON TEMPERATURE AND PRECIPITATION. WHEN IN DOUBT, CONTACT THE DRAIN COMMISSIONER'S OFFICE. CHECK WITH SUPPLIER FOR OTHER MIXTURES SUITABLE FOR THE LOCATION AND SOIL TYPES TO BE STABILIZED.			
MIX A 40% PERENNIAL RYEGRASS 40% CREEPING RED FESCUE 20% TALL FESCUE APPLY AT 5# TO 6#/1000 SFT		MIX B 40% ANNUAL RYEGRASS 30% PERENNIAL RYEGRASS 30% SEED OATS APPLY AT 9#/1000 SFT	
FOLLOW SOIL TEST RECOMMENDATIONS FOR FERTILIZER. IF NO SOIL TEST WAS DONE, APPLY 12-12-12 (NITROGEN-PHOSPHOROUS-POTASSIUM) AT A RATE RECOMMENDED BY THE MANUFACTURER OR AT 10 #/1000 S.F.			

TENTATIVE SEQUENCE OF CONSTRUCTION:

- WEEK 1: INSTALL TEMPORARY SOIL EROSION CONTROL MEASURES AND REMOVE CONCRETE RAMPS.
LAYOUT RAMPS AND REMOVE CONCRETE AS NEEDED FOR SLOPE, REMOVE CURB AND GUTTER AS DIRECTED IN THE FIELD. PULVERIZE ASPHALT, 2-4 INCHES.
PREPARE SUB BASE FOR NEW RAMPS AND CURB AND GUTTER, CHECK GRADES.
- WEEK 2: POUR NEW CURB AND GUTTER.
- WEEK 3: POUR RAMPS WITH DETECTABLE SURFACE, MAINTAIN ADA COMPLIANCE.
- WEEK 4: ADJUST CASTINGS, LAY NEW ASPHALT
CLEANUP AND STABILIZE DISTURBED AREAS, REFER TO SEEDING CHART.
- WEEK 5: PARKING STRIPES AND CROSSWALKS.
- WEEK 6: REMOVE SOIL EROSION MEASURES.



STORM CR #6333
 RM ELEV. = 797.45
 I.E. NW 1/4, C&P# = 793.25
 I.E. N 1/4, C&P# = 796.45
 I.E. SW 1/4, C&P# = 794.85
 I.E. SE 1/4, C&P# = 794.85

REVISION	DATE	DESCRIPTION

WOLVERINE
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BID SET

PROJECT: RIVER AND HARRISON STREETS RECONSTRUCTION
 CITY OF GRAND LEDGE
 EATON COUNTY, MICHIGAN

CHECKED: DBH
 DRAWN: DBH
 MOC
 JOB NO. 24-0013
 DATE: 02-09-24
 SCALE: NO SCALE
 SHEET NO. C4.0

SHEET TITLE: SESC PLAN

GRAND RENOVATIONS FOR DOWNTOWN GRAND LEDGE

CONTRACT No. 2023-03A: BRIDGE STREET & W. RIVER STREET STREETScape

GENERAL PROVISIONS:

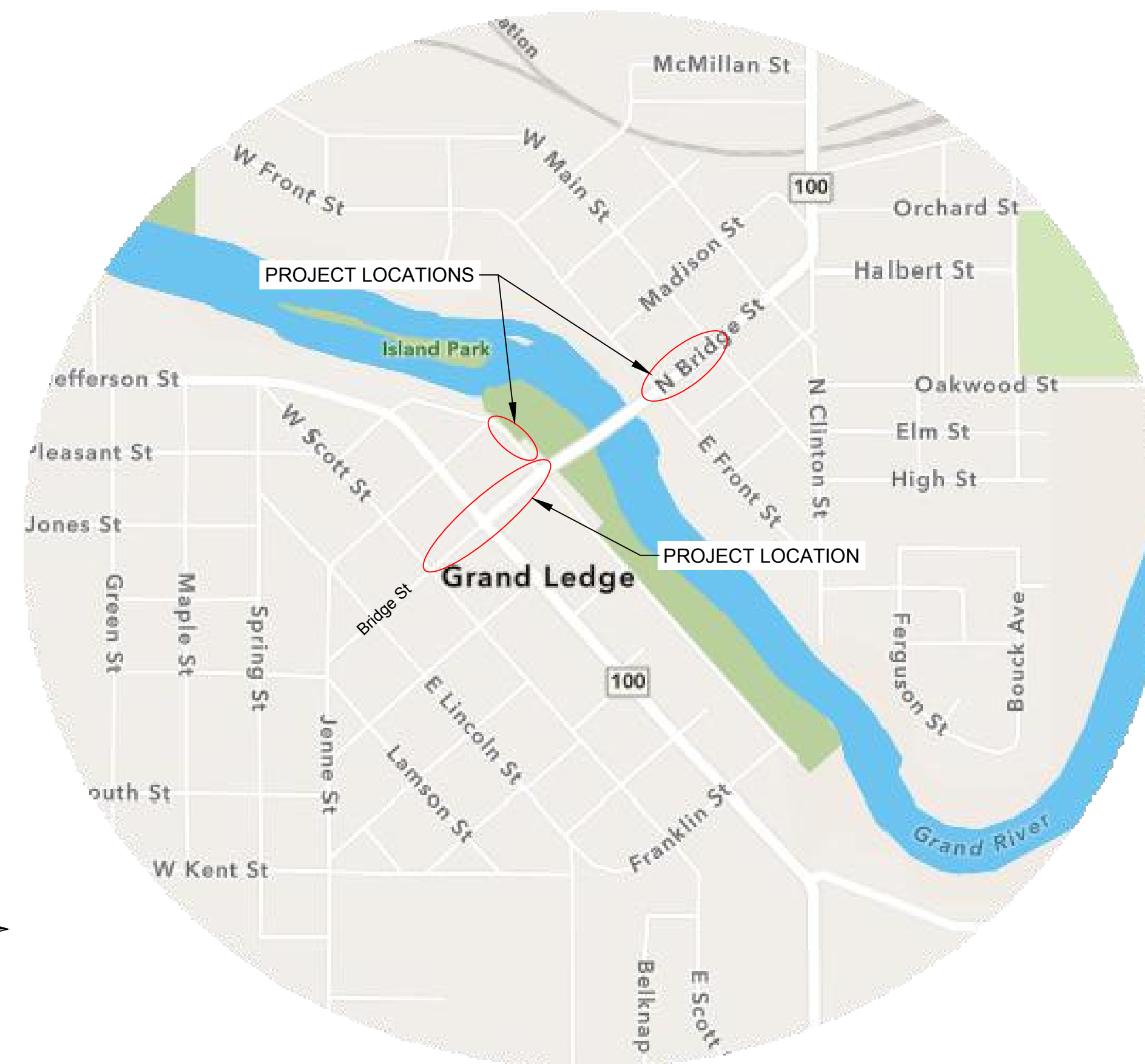
1. THE IMPROVEMENTS COVERED BY THESE PLANS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MICHIGAN DEPARTMENT OF TRANSPORTATION 2020 STANDARD SPECIFICATIONS FOR CONSTRUCTION AND SUPPLEMENTAL SPECIFICATIONS, EXCEPT AS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIAL PROVISIONS.
2. PAVEMENT MARKINGS INSTALLED AS A PART OF THIS CONTRACT SHALL BE PLACED IN ACCORDANCE WITH THE CURRENT EDITION OF THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
3. THE LOCATIONS OF PUBLIC UTILITIES SHOWN ON THESE PLANS IS TAKEN FROM THE BEST AVAILABLE DATA. THE CITY OF GRAND LEDGE WILL NOT BE RESPONSIBLE FOR ANY OMISSION OR VARIATION FOR THE LOCATIONS SHOWN. AS A CONDITION OF THIS CONTRACT AND PURSUANT TO ACT 174 OF THE PA OF 2013, NOTICE SHALL BE GIVEN TO MISS DIG A MINIMUM OF THREE WORKING DAYS PRIOR TO ANY UNDERGROUND WORK BEING PERFORMED. CONTACT (800)482-7171 OR 811. UTILITY SERVICE CONNECTIONS ARE NOT GENERALLY SHOWN ON THE PLANS AND ARE NOT THE RESPONSIBILITY OF THE CITY.

MDOT STANDARD PLANS:

- | | |
|----------|--|
| R-1-G | DRAINAGE STRUCTURES |
| R-7-F | COVER B |
| R-9-D | COVER D |
| R-15-G | COVER K |
| R-28-J | CURB RAMP AND DETECTABLE WARNING DETAILS |
| R-29-I | DRIVEWAY OPENINGS & APPROACHES, AND CONCRETE SIDEWALK |
| R-30-G | CONCRETE CURB AND CONCRETE CURB & GUTTER |
| R-41-H | LONGITUDINAL PAVEMENT JOINTS |
| * R-44-G | CONCRETE PAVEMENT REPAIR |
| * R-80-F | GRANULAR BLANKET, UNDERDRAINS, OUTLET ENDINGS FOR UNDERDRAINS, AND SEWER BULKHEADS |
| R-83-C | UTILITY TRENCHES |

- PAVE-945-D INTERSECTION, STOP BAR & CROSSWALK MARKINGS
WZD-100-A GROUND DRIVEN SIGN SUPPORTS FOR TEMP SIGNS*
WZD-125-E TEMPORARY TRAFFIC CONTROL DEVICES*

* DENOTES SPECIAL DETAIL INCLUDED IN PROPOSAL DOCUMENTS



SOIL EROSION AND SEDIMENTATION CONTROL NOTES:

1. CONTRACTOR SHALL COMPLY WITH REQUIREMENTS OF THE SOIL EROSION AND SEDIMENTATION CONTROL ACT OF THE STATE OF MICHIGAN, PART 91 OR ACT 451, OF THE PUBLIC ACTS OF 1994 AND THE REQUIREMENTS OF THE EATON COUNTY DRAIN OFFICE.
2. A SOIL EROSION AND SEDIMENTATION CONTROL PERMIT WILL BE REQUIRED FROM THE EATON COUNTY DRAIN OFFICE.
3. THE CONTRACTOR SHALL CONDUCT OPERATIONS IN A MANNER THAT WILL REDUCE ACCELERATED EROSION TO THE PRACTICAL MINIMUM AND PREVENT DAMAGING SILTATION TO EXISTING SEWERS AND WATER COURSES LEADING FROM THE WORK SITE.
4. THE CONTRACTOR SHALL CONDUCT WORK IN SUCH A MANNER AS TO PREVENT THE ENTRY OF FUELS, OILS, BITUMINOUS MATERIALS, CHEMICALS, SEWERAGE OR OTHER HARMFUL MATERIALS INTO NEARBY LAKES, RIVERS AND STREAMS.
5. WASTE DISPOSAL AREAS SHALL BE SELECTED BY THE CONTRACTOR WITH FULL CONSIDERATION OF EROSION AND SEDIMENT CONTROL, SELECTION OF DISPOSAL SITE, CONTROL OF OPERATIONS AND THE RESTORATION OF SAID AREAS SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.
6. EXCAVATION FROM THE RIGHT-OF-WAY, CHANNELS, OR OTHER MATERIAL SHALL NOT BE DEPOSITED IN OR NEAR RIVERS, STREAMS OR PONDS WHERE IT MAY ENTER THE WATERWAY.
7. AT THE COMPLETION OF EACH DAY'S CONSTRUCTION, CARE SHALL BE TAKEN TO ENSURE THAT MINIMAL EROSION WILL OCCUR IN TRENCHES AND TO STOCKPILED MATERIALS UNTIL RESUMPTION OF WORK.
8. CONTRACTOR SHALL CONFINE OPERATIONS TO THE MINIMUM AMOUNT OF WORKING SPACE PRACTICAL TO MINIMIZE SOIL EROSION.
9. THE PROJECT WILL BE CONTINUALLY INSPECTED BY A REPRESENTATIVE OF THE CITY FOR EROSION CONTROL COMPLIANCE. DEFICIENCIES WILL BE CORRECTED BY THE CONTRACTOR IMMEDIATELY UPON NOTICE OF SUCH DEFICIENCIES. FAILURE TO CORRECT THE DEFICIENCIES MAY RESULT IN THE ISSUANCE OF A STOP WORK ORDER AND THERE WILL BE NO CONTRACT TIME EXTENSION GRANTED FOR THIS TYPE OF STOPPAGE.
10. INLET FILTERS AND SILT FENCE SHALL BE INSTALLED THROUGHOUT THE ENTIRE CONSTRUCTION PHASE OF THE PROJECT AND SHALL BE REMOVED BY THE CONTRACTOR AFTER THE PERMANENT SOIL EROSION MEASURES HAVE BEEN COMPLETED.
11. STREET SWEEPING OR MUD REMOVAL SHALL BE PERFORMED DAILY FOR MUD TRACKED ONTO PUBLIC STREETS.
12. THE ENGINEER SHALL HAVE FULL AUTHORITY TO TEMPORARILY SUSPEND WORK IN THE EVENT THAT ANY OF THE ABOVE REQUIREMENTS ARE NOT BEING MET BY THE CONTRACTOR, OR IF CONDITIONS INDICATE THAT ADDITIONAL TEMPORARY CONTROL MEASURES ARE WARRANTED, IN THE OPINION OF THE ENGINEER.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF THE SOIL EROSION CONTROL MEASURES WITHIN THE CONSTRUCTION AREA UNTIL FULL COMPLETION OF THE PROJECT.
14. THE SOIL EROSION CONTROLS WILL BE MAINTAINED WEEKLY AND AFTER EVERY STORM EVENT BY THE CONTRACTOR.

GENERAL SEQUENCE OF CONSTRUCTION:

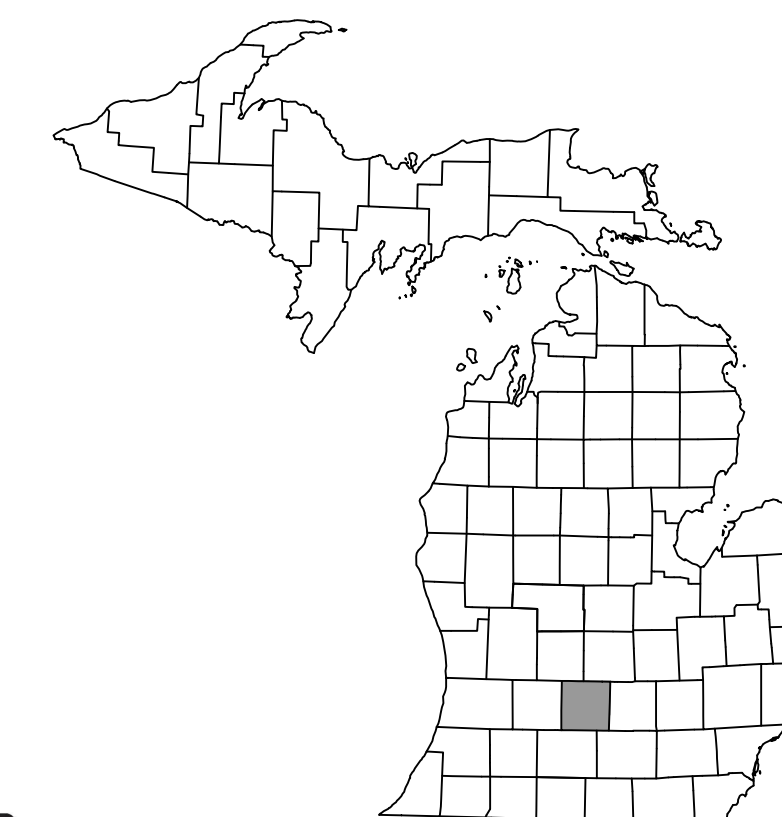
1. INSTALL TRAFFIC CONTROL MEASURES.
2. INSTALL TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL MEASURES.
3. REMOVE CONCRETE PAVEMENT.
4. REPLACE CONCRETE PAVEMENT.
5. REMOVE HMA PAVEMENT.
6. REPLACE HMA PAVEMENT.
7. RESTORE ADJACENT LAWN AREAS.
8. REMOVE TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL MEASURES.

TEMPORARY SESC MEASURE MAINTENANCE SCHEDULE:

1. SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE MAINTAINED WEEKLY AND AFTER EVERY STORM EVENT.
2. WEEKLY INSPECTION AND MAINTENANCE MUST BE PROVIDED TO INSURE INLET FILTER OPERATES EFFICIENTLY.
3. REMOVE ACCUMULATED SEDIMENT.
4. REPLACE DAMAGED INLET FILTERS.

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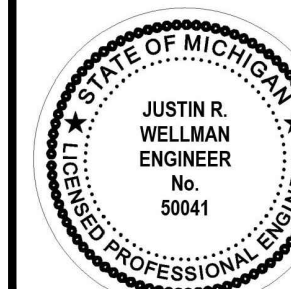
EATON COUNTY



giffels webster

Engineers
Surveyors
Planners
Landscape Architects
Environmental Specialists

1025 E. Maple Road
Suite 100
Birmingham, MI 48009
p (248) 852-3100
f (248) 852-6372
www.giffelswebster.com



PLANS FOR: 2,000 FEET OF STREETScape IMPROVEMENTS AND 500 FEET OF HMA COLD MILLING AND RESURFACING ON BRIDGE STREET (M-100).

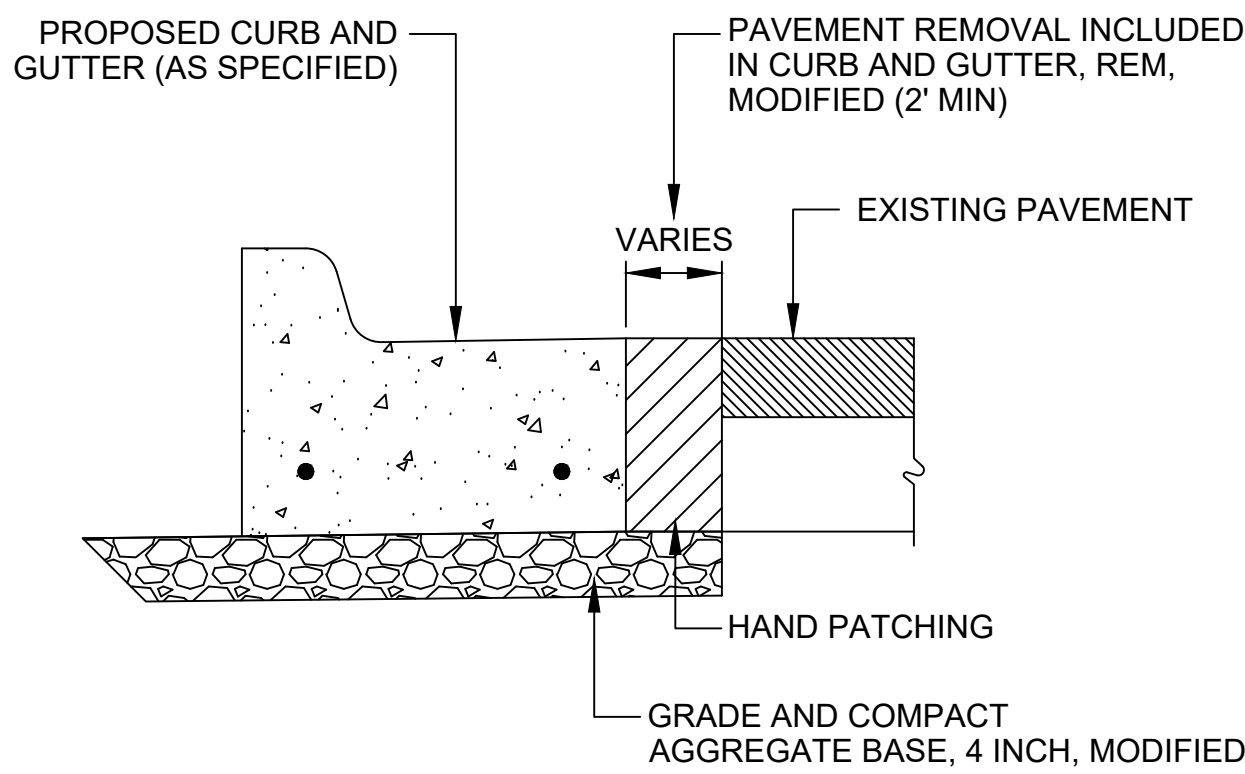
CITY OF GRAND LEDGE

AIMEE KING, ASSISTANT CITY MANAGER

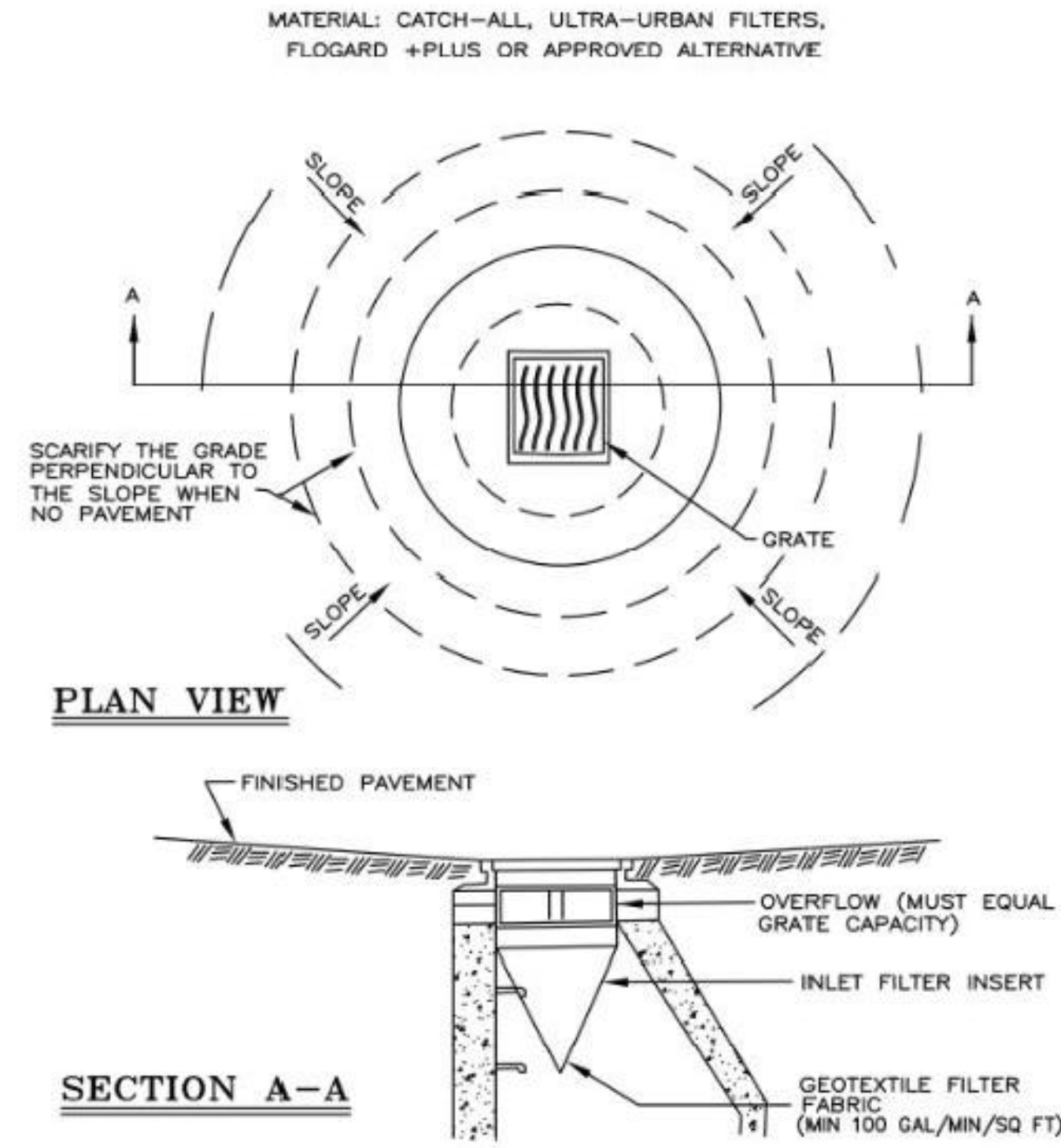
DATE

PREPARED UNDER THE SUPERVISION OF:

Justin R. Wellman 50041
JUSTIN R. WELLMAN, PE REGISTRATION No.



CURB AND GUTTER REPLACEMENT



INLET FILTER DETAIL

UTILITIES & GOVERNMENT AGENCIES:

THE FOLLOWING UTILITIES AND GOVERNMENT AGENCIES HAVE FACILITIES WITHIN THE PROJECT LIMITS:

WATER AND SEWER:
CITY OF GRAND LEDGE PUBLIC WORKS
310 GREENWOOD STREET
GRAND LEDGE, MI 48837
CONTACT: KURT RISTOW
T: (517) 627-2149
E: KRISTOW@CITYOFGRANDLEGE.COM

ELECTRIC (OVERHEAD & UNDERGROUND):
CONSUMERS ENERGY
530 W. WILLOW STREET
LANSING, MI 48906
CONTACT: JACOB M. CHALUT
T: (517) 374-2329
E: JACOB.CHALUT@CMSENERGY.COM

NATURAL GAS:
CONSUMERS ENERGY
530 W. WILLOW STREET
LANSING, MI 48906
CONTACT: ADAM BERTRAM
T: (517) 614-8570
E: ADAM.BERTRAM@CMSENERGY.COM

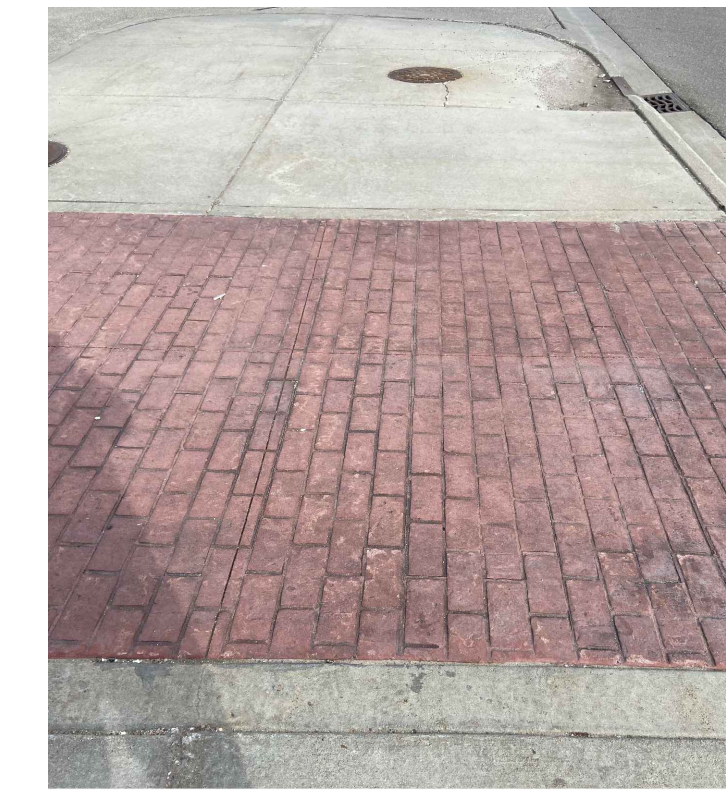
CABLE (OVERHEAD):
COMCAST
3544 PATTERSON AVE SE
KENTWOOD, MI 49512
CONTACT: SCOTT WILSON
E: SCOTT_WILSON@COMCAST.COM

CABLE (OVERHEAD):
ROGERS TELECOM, INC
8200 DIXIE ROAD, EAST BUILDING
BRAMPTON, ON L6T0C1
CONTACT: JULIE PAULSON
T (BUSINESS): (920) 459-2600
T (AFTER HOURS): (920) 889-9832
E: JPAULSON@GABES.COM

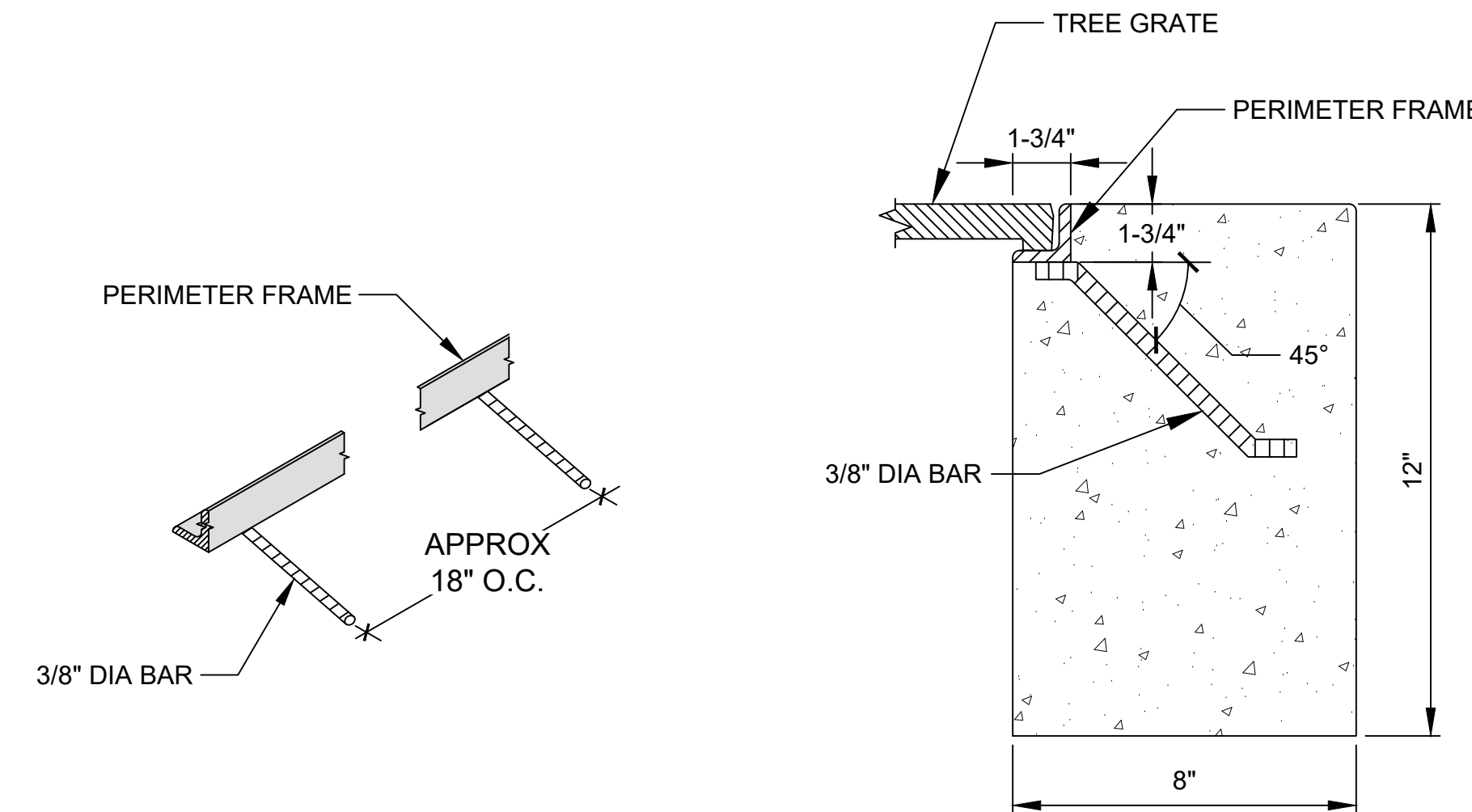
CABLE (OVERHEAD):
WIDE OPEN WEST (W.O.W.)
380 WRIGHT INDUSTRIAL PARKWAY
POTTERVILLE, MI 48876
CONTACT: CODY BRISKIE
T: (517) 202-7441
E: CODY.BRISKIE@WOWINC.COM

FIBER OPTIC (UNDERGROUND):
ZAYO GROUP
240 E. SOUTH STREET
LANSING, MI 48910
CONTACT: WAYLON HIGGINS
E: WAYLON.HIGGINS@ZAYO.COM

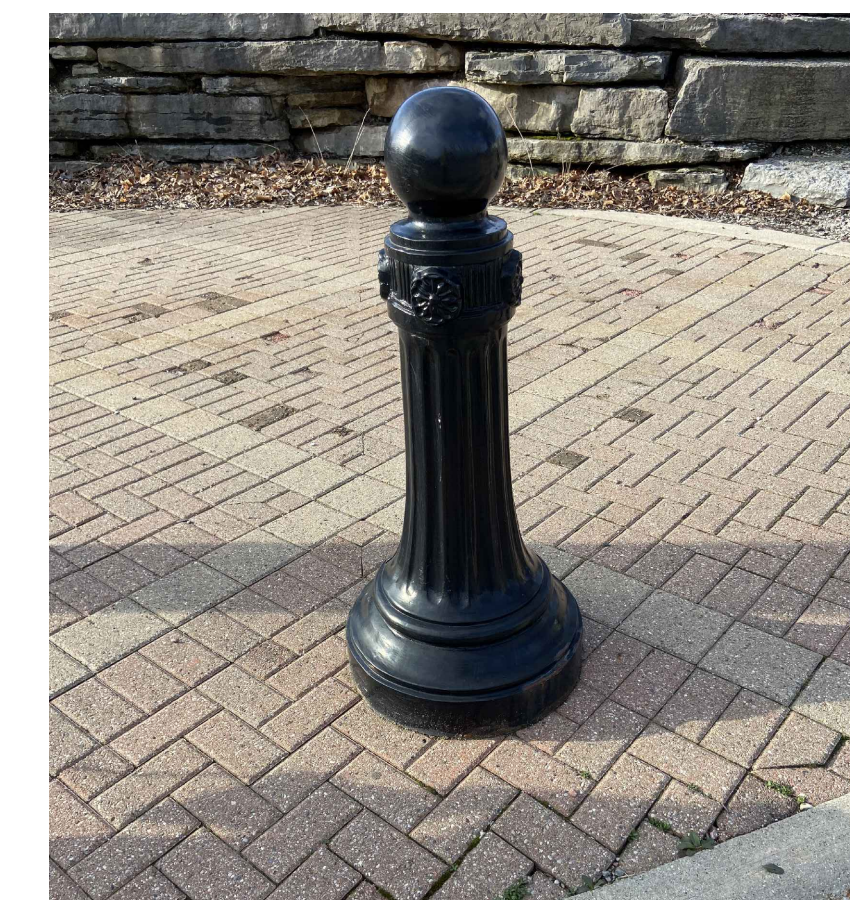
FIBER OPTIC (UNDERGROUND):
FRONTIER COMMUNICATIONS
1943 W. M-21
OWOSSO, MI 48867
CONTACT: HAROLD ROTH
T: (989) 627-9579



STAMPED CONCRETE EXAMPLE



TREE GRATE FRAME AND COLLAR DETAIL



DECORATIVE BOLLARD EXAMPLE

HMA APPLICATION ESTIMATE				
MATERIAL	ITEM(S)	APPLICATION RATE	ESTIMATED THICKNESS	PERFORMANCE GRADE BINDER
HMA, 5EML, HIGH STRESS	TOP COURSE HMA APPROACH	165 LBS / SYD	1.5 INCHES	64-22 MIN AWI = 220
HMA, 3C	HAND PATCHING	VARIES	VARIES (MAX LIFT - 3 INCHES)	58-22

MISCELLANEOUS PAY ITEMS	QTY	UNIT
MOBILIZATION, MAX \$270,000.00	1	LUMP SUM
SUBGRADE UNDERCUTTING, 21AA, MODIFIED	50	CUBIC YARD
PROJECT CLEANUP	1	LUMP SUM
DR STRUCTURE, ADJ. ADD DEPTH	5	FOOT
PAVT, CLEANING	1	LUMP SUM
TRAF REGULATORY CONTROL	1	LUMP SUM
MINOR TRAF DEVICES	1	LUMP SUM
PLASTIC DRUM, FLUORESCENT, FURN	30	EACH
PLASTIC DRUM, FLUORESCENT, OPER	30	EACH
REIMBURSED PERMIT FEES	1,000	DOLLARS

NOTE: SEEDING MIXTURE, SPECIAL SHALL CONSIST OF THE FOLLOWING SEEDS AND THE CONTRACTOR SHALL PROVIDE THE OWNER THE PROPORTIONS (BY WEIGHT) FOR APPROVAL PRIOR TO PLACEMENT.

COMMON NAME	BOTANICAL NAME	MINIMUM PURITY	GERMINATION	PERCENTAGE
KENTUCKY BLUEGRASS	POA PRATENSIS	98%	85%	50%
PERENNIAL RYEGRASS	LOLIUM PERENNE	96%	85%	50%



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Executive: J.R.W.
Manager: J.R.W.
Designer: J.R.W.
Quality Control: S.A.R.



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Developed For:
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(517) 627-2149

GENERAL NOTES

GRAND RENOVATIONS FOR DOWNTOWN GRAND LEDGE
CITY OF GRAND LEDGE
EATON COUNTY
MICHIGAN

Date: 04.18.23
Scale: AS SHOWN
Sheet: 02 of 32
Project: 20356.00

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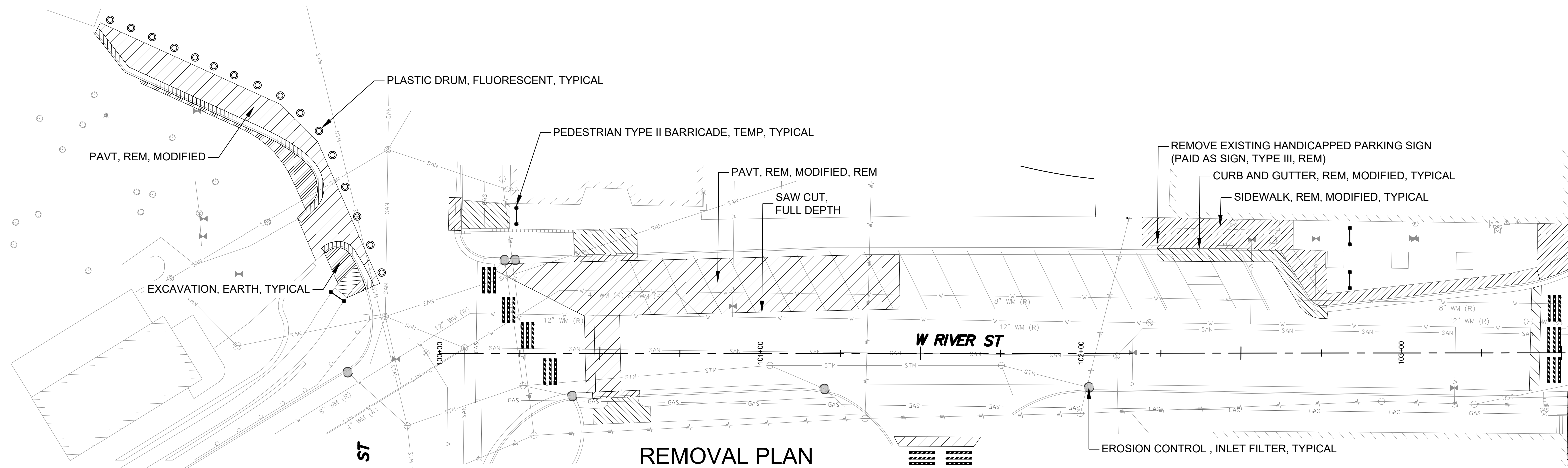
**W. RIVER
STREET
REMOVAL &
PAVING**

GRAND RENOVATIONS
FOR DOWNTOWN
GRAND LEDGE
CITY OF GRAND LEDGE
EATON COUNTY
MICHIGAN

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Project:	20356.00

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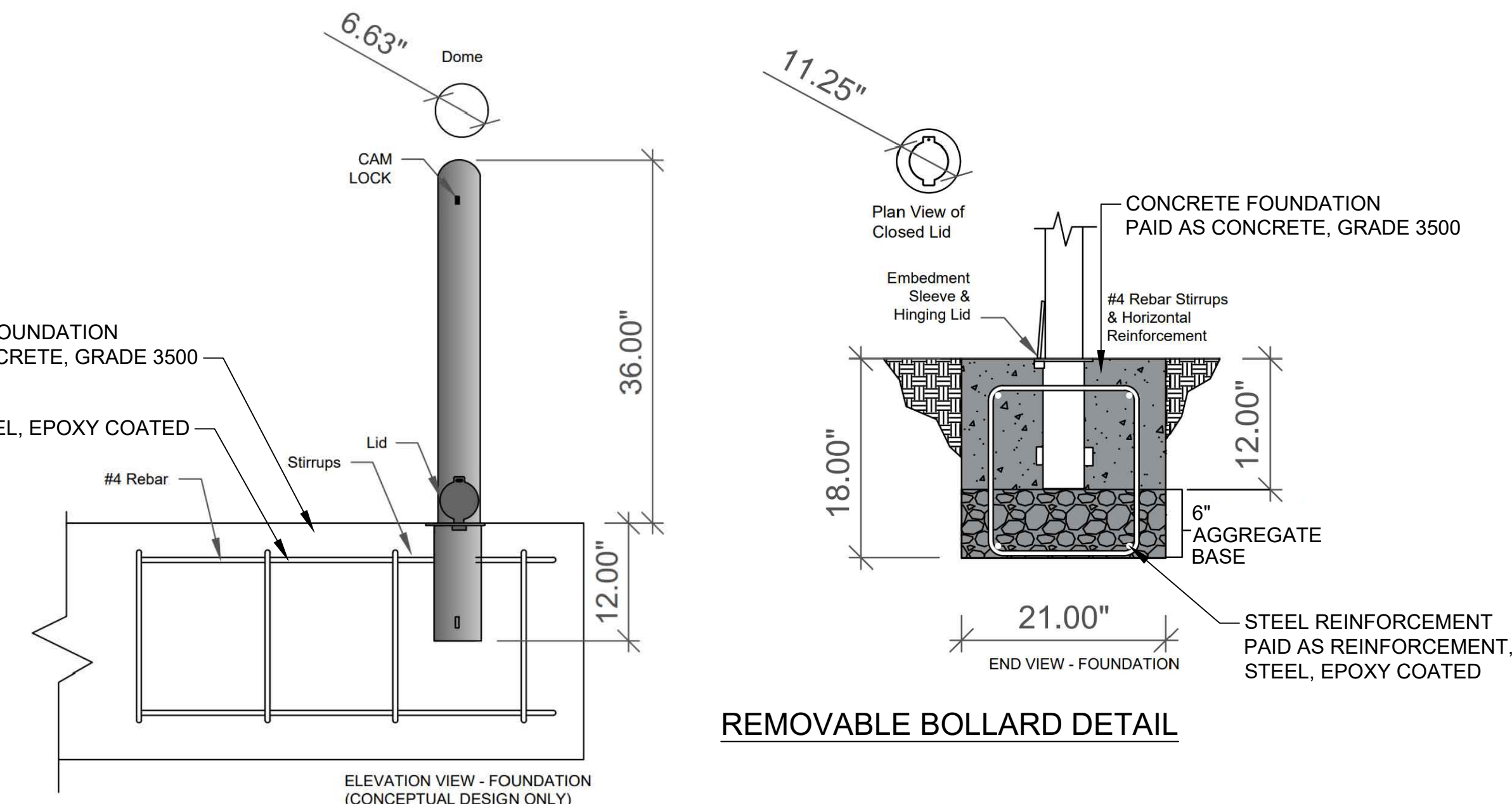


REMOVAL PLAN

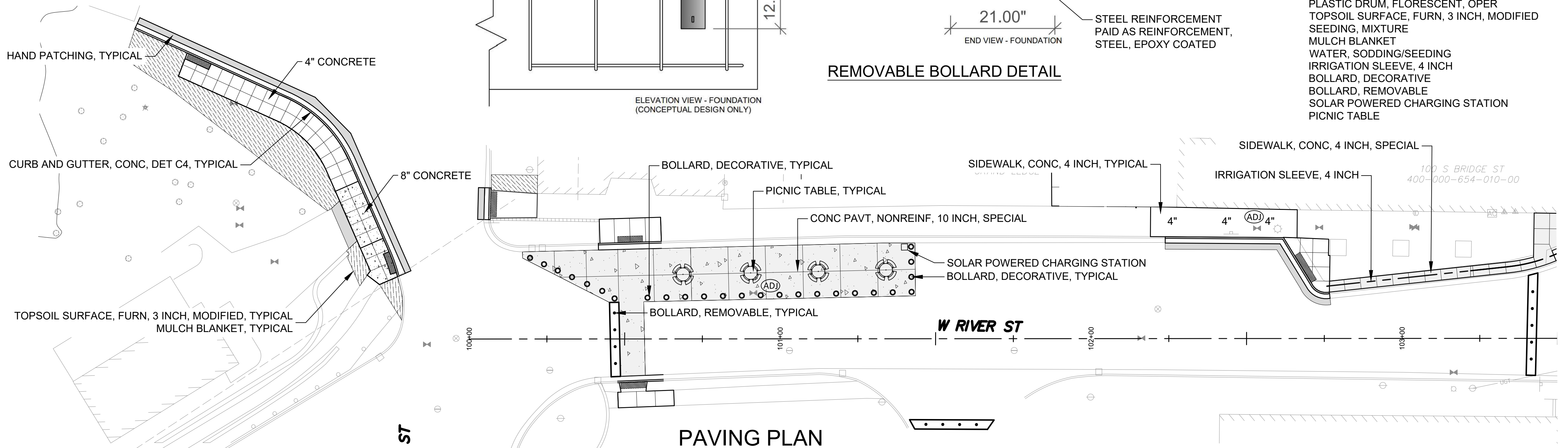
- LEGEND**
- PAVEMENT REMOVAL, MODIFIED
 - SIDEWALK AND BRICK PAVERS REMOVAL
 - EXCAVATION, EARTH
 - COLD MILLING HMA SURFACE
 - HMA SURFACE REMOVAL
 - CONCRETE CURB AND GUTTER REMOVAL
 - HMA PAVING / HAND PATCHING
 - RESTORATION AREA
 - STAMPED COLORED CONCRETE
 - 8 INCH CONC DRIVE / SIDEWALK / RAMP
 - MISC. LANDSCAPING
 - EROSION CONTROL, INLET FILTER
 - BARRICADE, TYPE III, HIGH-INTENSITY, DOUBLE SIDED
 - PLASTIC DRUM, FLUORESCENT
 - PEDESTRIAN TYPE II BARRICADE, TEMP

- ITEM OF WORK**
- CURB AND GUTTER, REM, MODIFIED 190 FOOT
 - PAVT, REM, MODIFIED 362 SQUARE YARD
 - SIDEWALK, REM, MODIFIED 134 SQUARE YARD
 - EXCAVATION, EARTH 6 CUBIC YARD
 - EROSION CONTROL, INLET FILTER, INSTALL 6 EACH
 - EROSION CONTROL, INLET FILTER, REM 6 EACH
 - AGGREGATE BASE, CONDITIONING 459 SQUARE YARD
 - AGGREGATE BASE, 4 INCH, MODIFIED 197 SQUARE YARD
 - AGGREGATE BASE, 6 INCH, MODIFIED 262 SQUARE YARD
 - GATE BOX, ADJ, CASE 1 2 EACH
 - HAND PATCHING 26 TON
 - LANE TIE, EPOXY ANCHORED 14 EACH
 - CONC PAVT, NONREINF, 10 INCH, SPECIAL REINFORCEMENT, STEEL, EPOXY COATED 238 SQUARE YARD
 - CONC, GRADE 3500 765 POUND
 - CURB AND GUTTER, CONC, DET C4 114 FOOT
 - SIDEWALK, CONC, 4 INCH 437 SQUARE FOOT
 - SIDEWALK, CONC, 4 INCH, SPECIAL 160 SQUARE FOOT
 - SIGN, TYPE III, REM 1 EACH
 - BARRICADE, TYPE III, HIGH INTENSITY, DOUBLE SIDED, LIGHTED, FURN 9 EACH
 - BARRICADE, TYPE III, HIGH INTENSITY, DOUBLE SIDED, LIGHTED, OPER 9 EACH
 - PEDESTRIAN TYPE II BARRICADE, TEMP 4 EACH
 - PLASTIC DRUM, FLORESCENT, FURN 16 EACH
 - PLASTIC DRUM, FLORESCENT, OPER 16 EACH
 - TOPSOIL SURFACE, FURN, 3 INCH, MODIFIED 120 SQUARE YARD
 - SEEDING, MIXTURE 1 POUND
 - MULCH BLANKET 120 SQUARE YARD
 - WATER, SODDING/SEEDING 1 UNIT
 - IRRIGATION SLEEVE, 4 INCH 50 FOOT
 - BOLLARD, DECORATIVE 25 EACH
 - BOLLARD, REMOVABLE 13 EACH
 - SOLAR POWERED CHARGING STATION 1 EACH
 - PICNIC TABLE 4 EACH

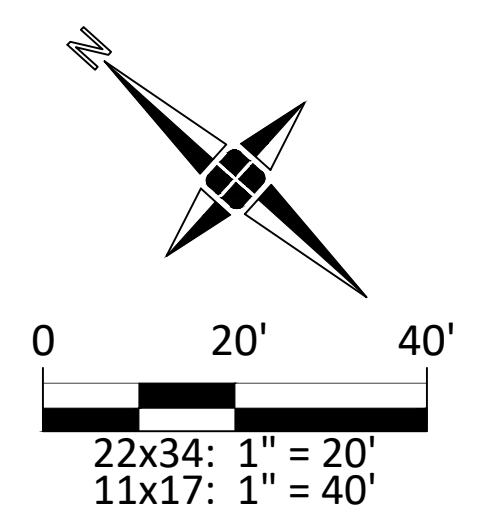
QUANTITY UNIT



REMOVABLE BOLLARD DETAIL



PAVING PLAN





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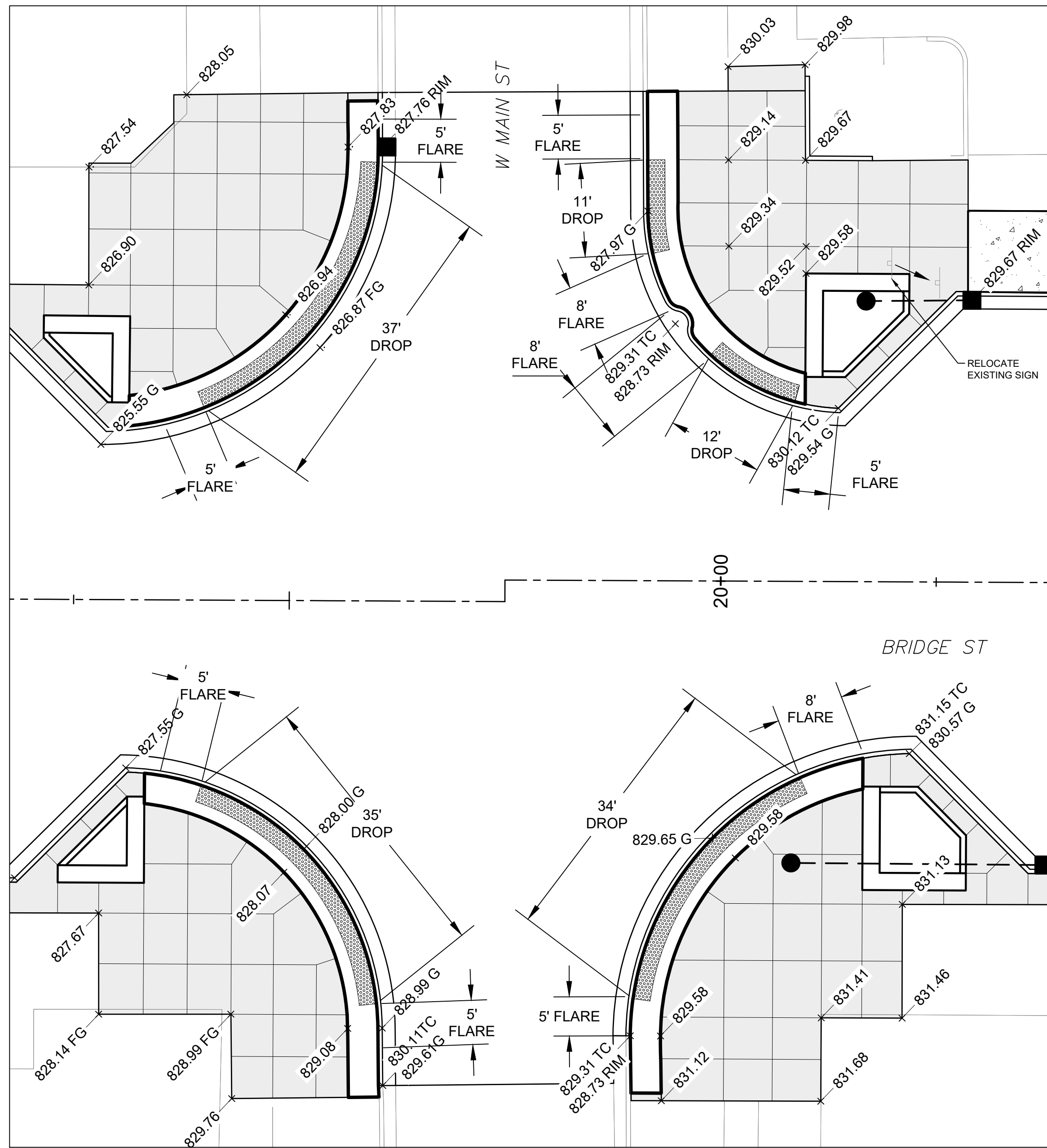
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**ADA RAMP PLANS
(3 OF 3)**

GRAND RENOVATIONS FOR DOWNTOWN GRAND LEDGE
CITY OF GRAND LEDGE
EATON COUNTY
MICHIGAN

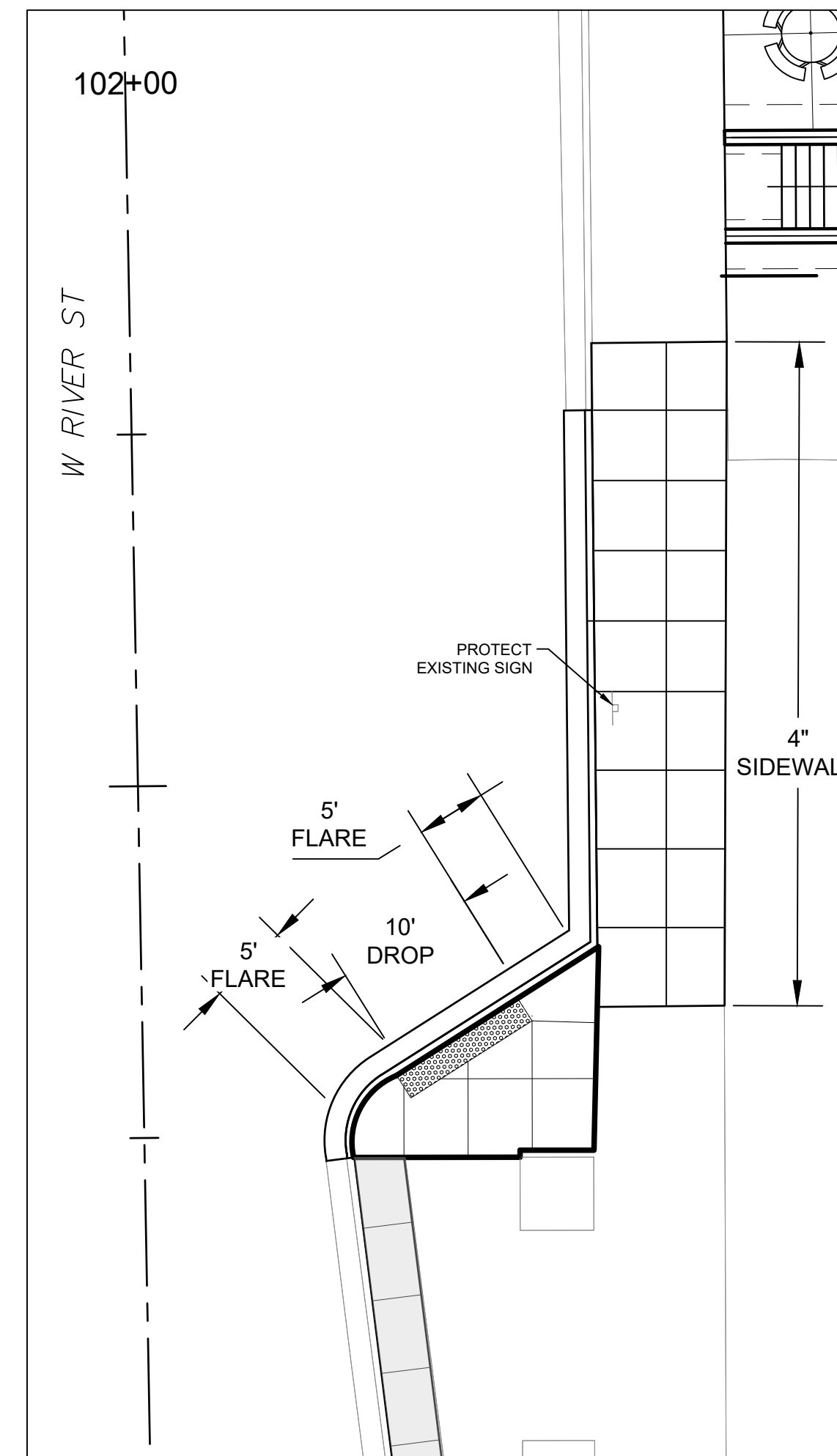
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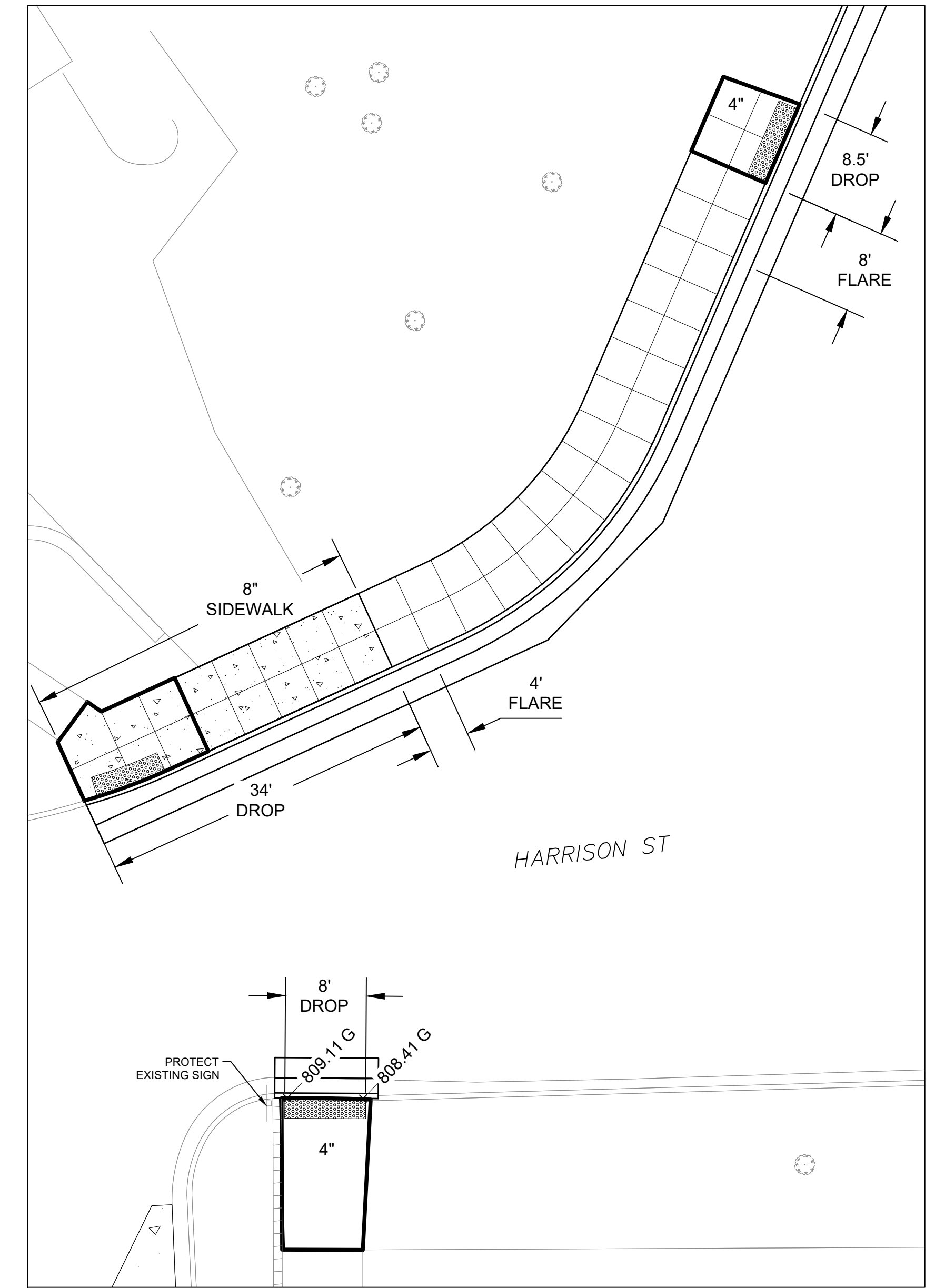
N. BRIDGE AND MAIN INTERSECTION

ITEM OF WORK	QUANTITY	UNIT
DETECTABLE WARNING SURFACE, MODIFIED	123	FOOT
CURB RAMP, CONC, 7 INCH	667	SQUARE FOOT
CURB RAMP OPENING, CONC	188	FOOT



W. RIVER STREET (STA. 102+35)

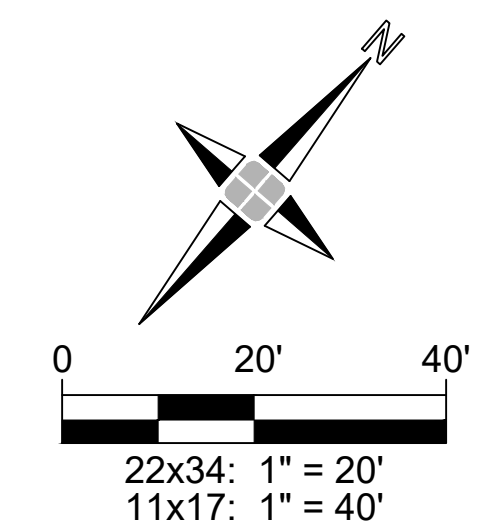
ITEM OF WORK	QUANTITY	UNIT
DETECTABLE WARNING SURFACE, MODIFIED	10	FOOT
CURB RAMP, CONC, 4 INCH	159	SQUARE FOOT
CURB RAMP OPENING, CONC	20	FOOT
SIDEWALK, CONC, 4 INCH	337	SQUARE FOOT



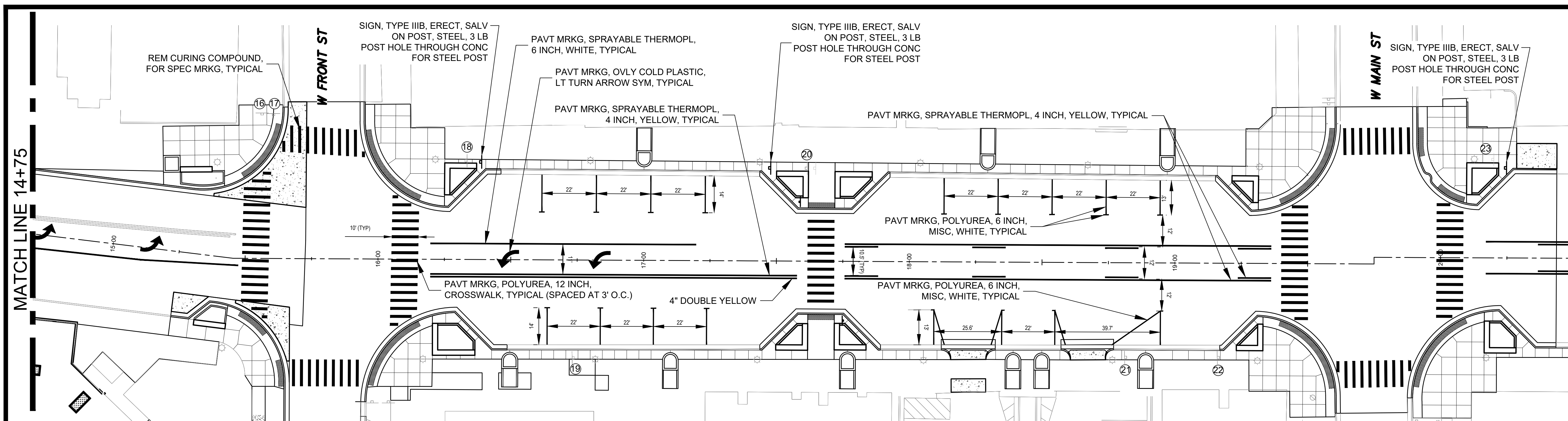
W. RIVER AND HARRISON INTERSECTION

ITEM OF WORK	QUANTITY	UNIT
DETECTABLE WARNING SURFACE, MODIFIED	24	FOOT
CURB RAMP, CONC, 4 INCH	192	SQUARE FOOT
CURB RAMP OPENING, CONC	65	FOOT
SIDEWALK, CONC, 4 INCH	481	SQUARE FOOT
SIDEWALK, CONC, 8 INCH	266	SQUARE FOOT

LEGEND
STAMPED CONCRETE SIDEWALK

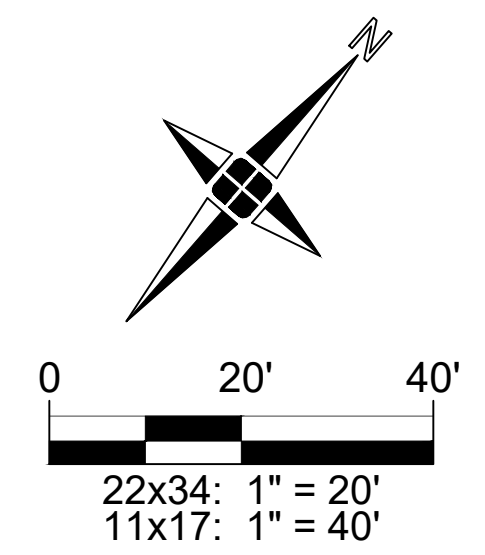


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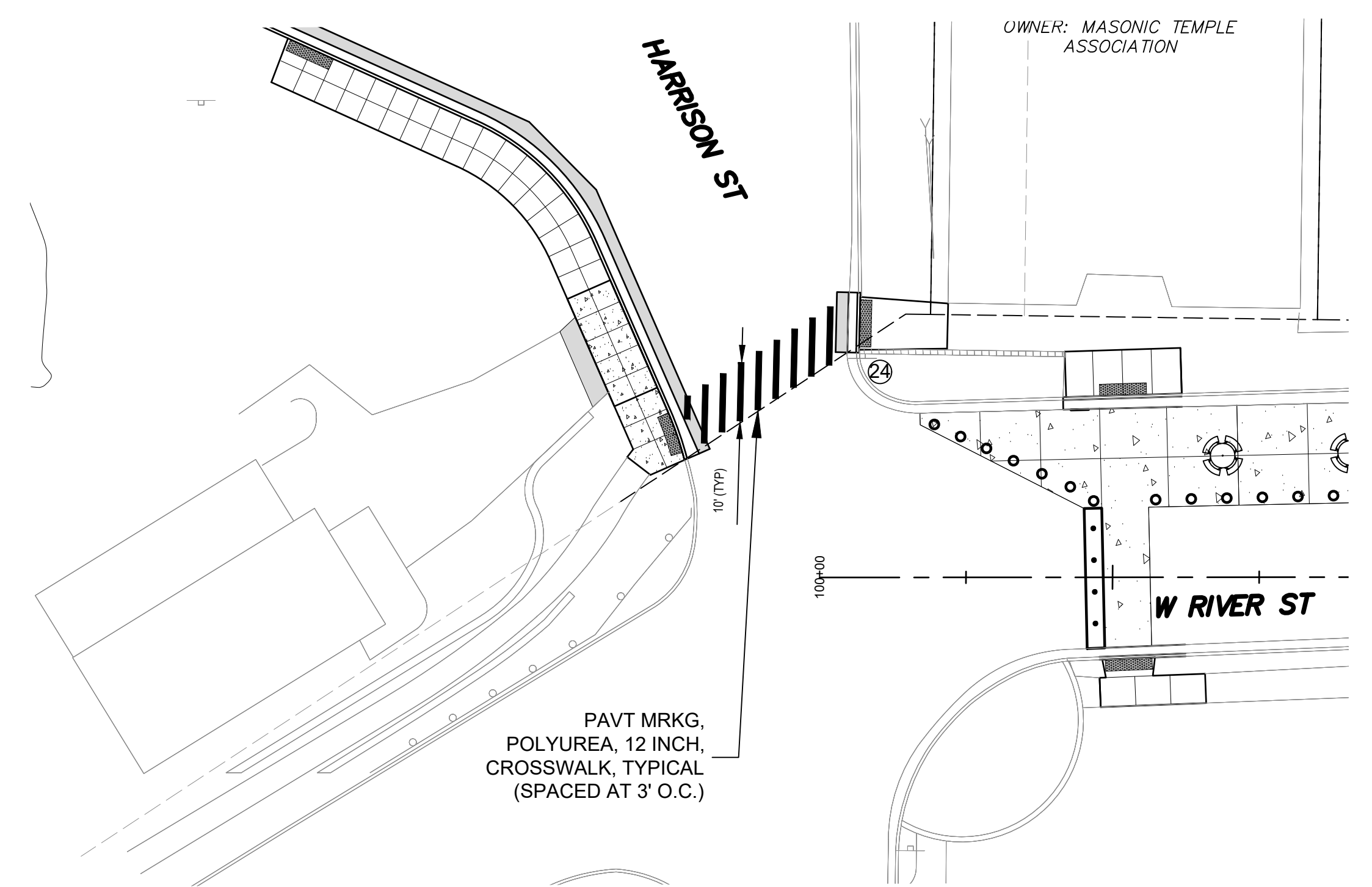
MDOT TRUNKLINE	
ITEM OF WORK	QUANTITY UNIT
PAVT MRKG, POLYUREA, 12 INCH, CROSSWALK	707 FOOT
PAVT MRKG, OVLY COLD PLASTIC, LT TURN ARROW SYM	4 EACH
PAVT MRKG, SPRAYABLE THERMOPL, 6 INCH, WHITE	207 FOOT
PAVT MRKG, SPRAYABLE THERMOPL, 4 INCH, YELLOW	787 FOOT
REM CURING COMPOUND, FOR SPEC MRKG	35 SQUARE FOOT
REM SPEC MRKG	187 SQUARE FOOT

NON-MDOT TRUNKLINE	
ITEM OF WORK	QUANTITY UNIT
SIGN, TYPE III, REM	4 EACH
SIGN, TYPE III, ERECT, SALV	4 EACH
POST, STEEL, 3 LB	60 FOOT
POST HOLE THROUGH CONC FOR STEEL POST	4 EACH
PAVT MRKG, POLYUREA, 12 INCH, CROSSWALK	448 FOOT
PAVT MRKG, POLYUREA, 4 INCH, MISC, BLUE	113 FOOT
PAVT MRKG, POLYUREA, 4 INCH, MISC, WHITE	45 FOOT
PAVT MRKG, POLYUREA, 6 INCH, MISC, WHITE	361 FOOT
REM CURING COMPOUND, FOR SPEC MRKG	24 SQUARE FOOT

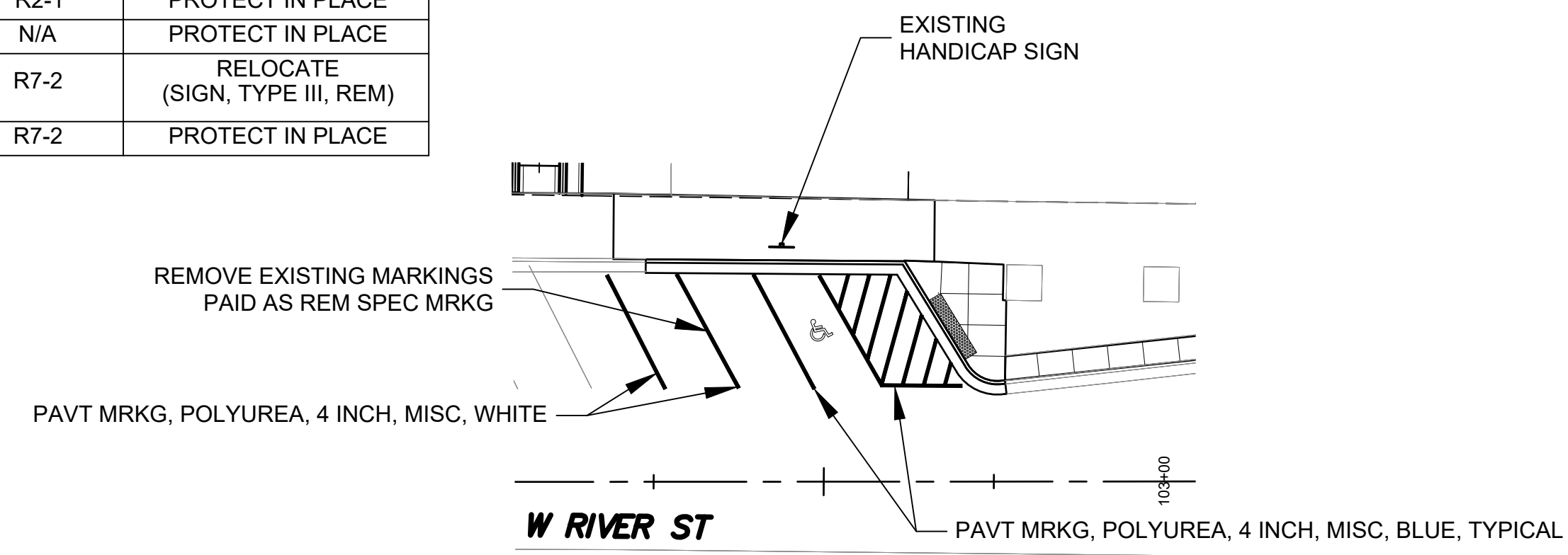
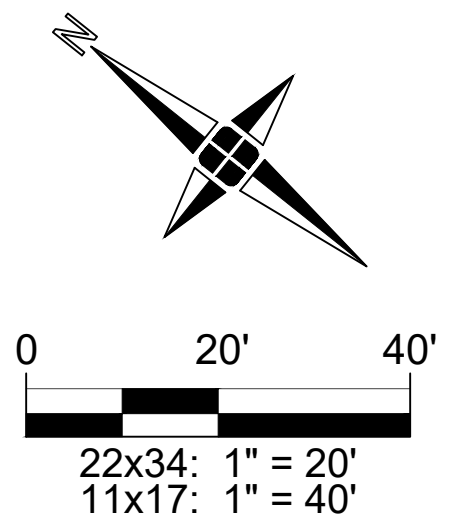


EXISTING SIGN SCHEDULE

	SIGN OR PLAQUE TYPE	DESIGNATION	WORK DESCRIPTION
16	STREET NAME	D3-1	PROTECT IN PLACE
17	STOP	R1-1	PROTECT IN PLACE
18	ROADSIDE PARK ARROW	D6-1	RELOCATE (SIGN, TYPE III, REM)
19	NO STOPPING STANDING PARKING	R7-14	PROTECT IN PLACE
20	BRIDGE ICES BEFORE ROAD	W8-13	RELOCATE (SIGN, TYPE III, REM)
21	SPEED LIMIT	R2-1	PROTECT IN PLACE
22	PUBLIC PARKING	N/A	PROTECT IN PLACE
23	NO PARKING	R7-2	RELOCATE (SIGN, TYPE III, REM)
24	NO PARKING 3AM-5AM	R7-2	PROTECT IN PLACE



HARRISON AND W RIVER ST INTERSECTION PAVEMENT MARKINGS



W RIVER STREET ACCESS AISLE



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BRIDGE PAVEMENT MARKING (2 OF 2)

GRAND RENOVATIONS FOR DOWNTOWN GRAND LEDGE
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