

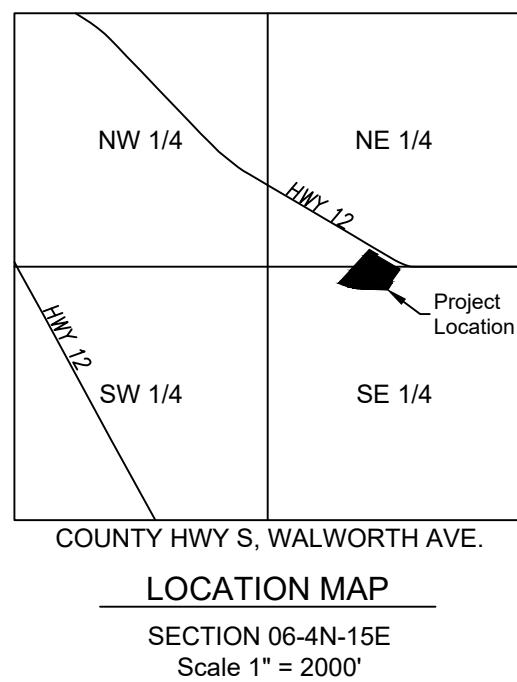
Dollar Tree

Whitewater, Waukesha County, WI
Section 6, Township 4 N, Range 15 E

Construction Documents

SITE BENCHMARKS:

CP# 10 1/2" Iron Bar W/Control Cap NORTHING: 424907.69 EASTING: 703626.25 ELEVATION: 843.43	CP# 12 1/2" Iron Bar W/Control Cap NORTHING: 424422.25 EASTING: 703919.91 ELEVATION: 843.08
CP# 11 1/2" Iron Bar W/Control Cap NORTHING: 424984.24 EASTING: 703979.45 ELEVATION: 837.62	CP# 13 1/2" Iron Bar W/Control Cap NORTHING: 424492.18 EASTING: 703487.28 ELEVATION: 842.03



LEGAL DESCRIPTION:

Lot 1 of Certified Survey Map No. 5033, recorded in Walworth County Register of Deeds Office on June 10 2022, as Document No. 1063365, being part of Lot 1 of Certified Survey Map No. 2381 recorded as Document No. 272112, being part of the SW 1/4 and SE 1/4 of the NE 1/4 and part of the NW 1/4 and NE 1/4 of the SE 1/4 of Section 6, Township 4 North, Range 15 East, of the 4th Principal Meridian, City of Whitewater, Walworth County, Wisconsin.

FLOOD PLAIN NOTES:

According to the F.E.M.A. Flood Insurance Rate Map Number 55127C0009E, revised 09/03/2014, this tract graphically lies in OTHER AREAS, ZONE X, defined as areas determined to be outside the 0.2% annual chance floodplain.

UTILITIES NOTE

The information concerning locations of underground utilities shown hereon which are not visible from the surface, has been taken from the records and field locations of the various utility companies and has not been field verified by this company. these locations are not to be construed as accurate or exact.

NOTE:

48 hours prior to commencement of construction, the contractor shall notify the following companies for field verification of underground utilities.

UTILITIES

Whitewater - Public Works
312 W. Whitewater St.
Whitewater, WI 53190
262-473-0139

Whitewater - Fire & EMS
312 W. Whitewater St.
Whitewater, WI 53190
262-473-0112

Whitewater - Police Dept.
312 W. Whitewater St.
Whitewater, WI 53190
262-473-1371

One Call of Wisconsin

Wisconsin Diggers Hotline: 800-242-8511
Michigan Miss DIG: 800-482-7171

Electric Service - WE Energies
Business: 800-714-7777
Emergency: 800-662-4797

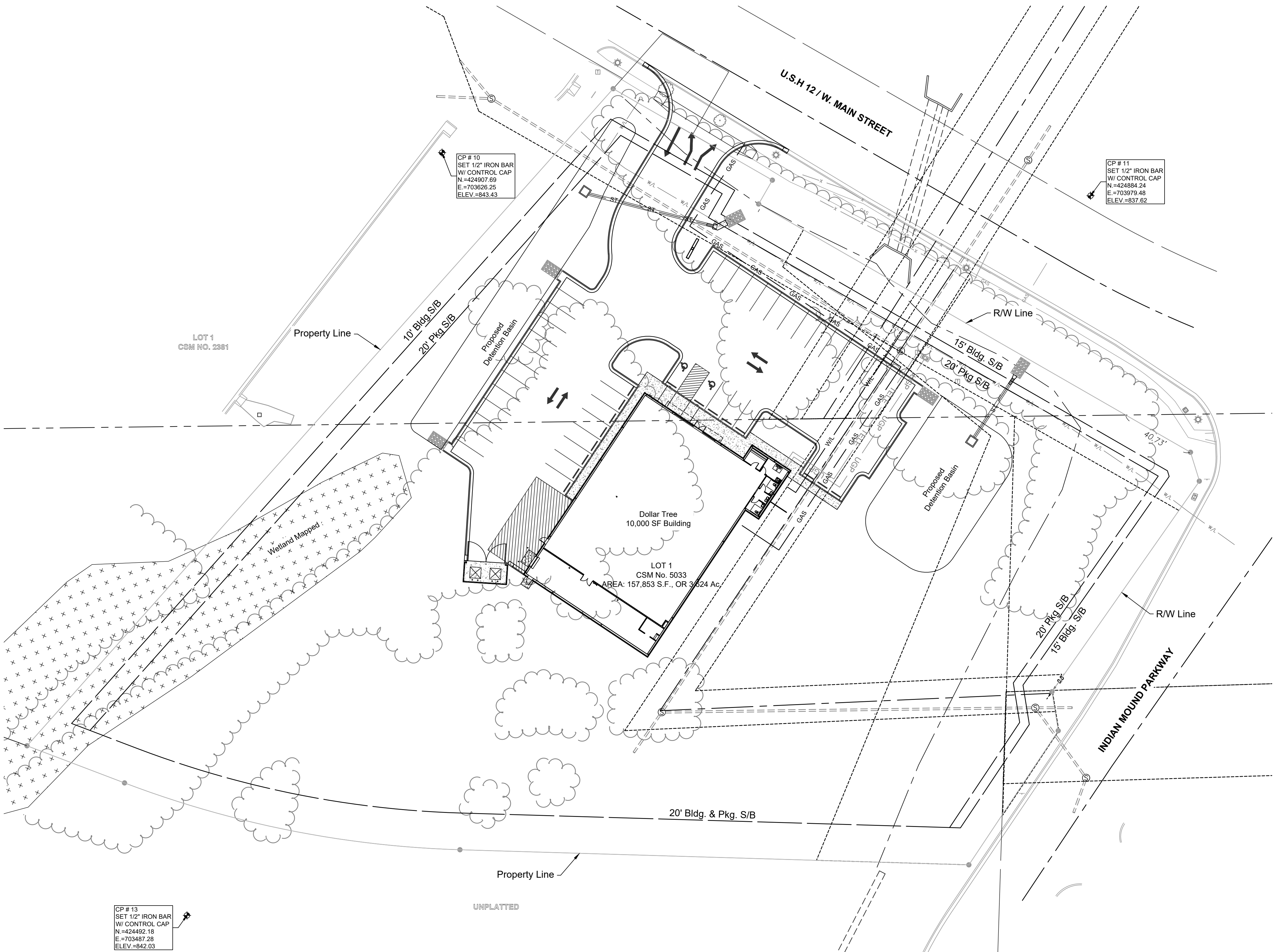
Natural Gas - WE Energies
Business: 800-714-7777
Emergency: 800-261-5325

Water Service - Whitewater
312 W. Whitewater St.
Whitewater, WI 53190
Water Utility Superintendent, Jim Bergner
jbergner@whitewater-wi.gov
262-473-0560

Sewer Service - Whitewater
312 W. Whitewater St.
Whitewater, WI 53190
262-473-0139
Wastewater Utility Superintendent, Ben Mielke
bmiele@whitewater-wi.gov
262-473-0560

LEGEND

—	Existing Section Line	—	Proposed Right-of-Way
- - - -	Existing Right-of-Way Line	—	Proposed Property Line
—	Existing Lot Line	—	Proposed Lot Line
- - - -	Existing Easement Line	—	Proposed Easement
—	Existing Curb & Gutter	—	Proposed Curb & Gutter
—	Existing Sidewalk	—	Proposed Sidewalk
—	Existing Storm Sewer	—	Proposed Storm Sewer
□	Existing Storm Structure	□	Proposed Storm Structure
- - - -	Existing Waterline	▲	Proposed Fire Hydrant
- - - -	Existing Gas Main	—	Proposed Waterline
—	Existing Sanitary Sewer	—	Proposed Sanitary Sewer
⊙	Existing Sanitary Manhole	●	Proposed Sanitary Manhole
- - - -	Existing Contour Major	—	Proposed Contour Major
- - - -	Existing Contour Minor	—	Proposed Contour Minor
—	Future Curb and Gutter		
U/E	Utility Easement	A/E	Access Easement
SS/E	Sanitary Sewer Easement	T/E	Temporary Easement
D/E	Drainage Easement		



Sheet Number	Sheet Title
C0.0	General Layout
C0.1	General Notes
C1.0	Existing Condition
C1.1	Demolition Plan
C2.0	Site Plan
C2.1	Dimension Plan
C3.0	Grading Plan
C3.1	Spot Grading Plan
C3.2	Grading Details
C4.0	Site Utility Plan
C5.0	Drainage Map
C5.1	Storm Plan and Profile 1
C5.2	Storm Plan and Profile 2
C6.0	Erosion Control Plan I
C6.1	Erosion Control Plan II
C6.2	Erosion Control Plan III
C6.3	Erosion Control Details
C6.4	Seeding Plan
C6.5	Irrigation Coverage Plan
C7.0	Standard Details

Address:
No address available

Zoning:
B-1 (General Commercial)

Setbacks:
- Front: 15' (Street Yard)
- Side: 10'
- Rear: 20'
- Parking: 20'

Consultant:
Renaissance Infrastructure Consulting, LLC
Contact Person: Andy Gabbert
8653 Penrose Lane
Lenexa, KS 66218
agabbert@ric-consult.com
(913) 333-3880

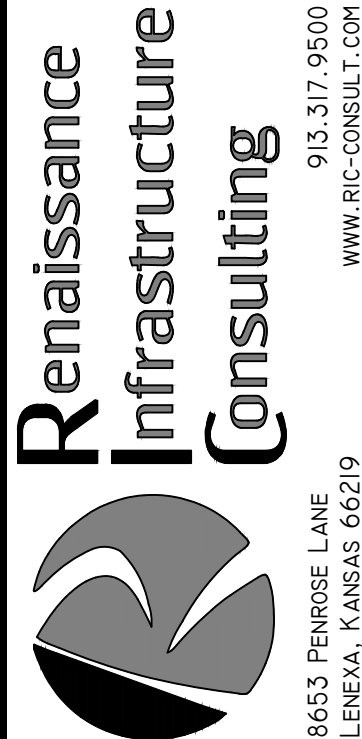
Owner:
USFP, LLC
Contact Person: Mike Belew
4706 Broadway, Suite 240
Kansas City, MO 64112
mbelew@usfpco.com
www.usfpco.com
(816) 645-8963

Construction Documents

22-0111-24
Dollar Tree
Whitewater, Waukesha County, WI

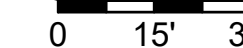
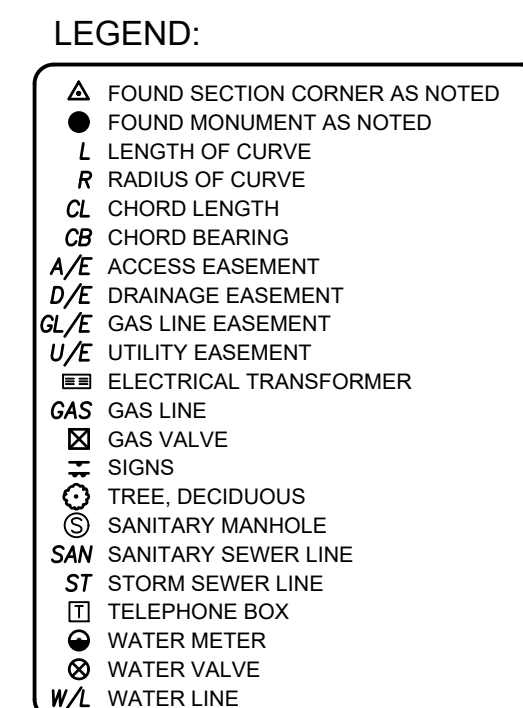
General Layout

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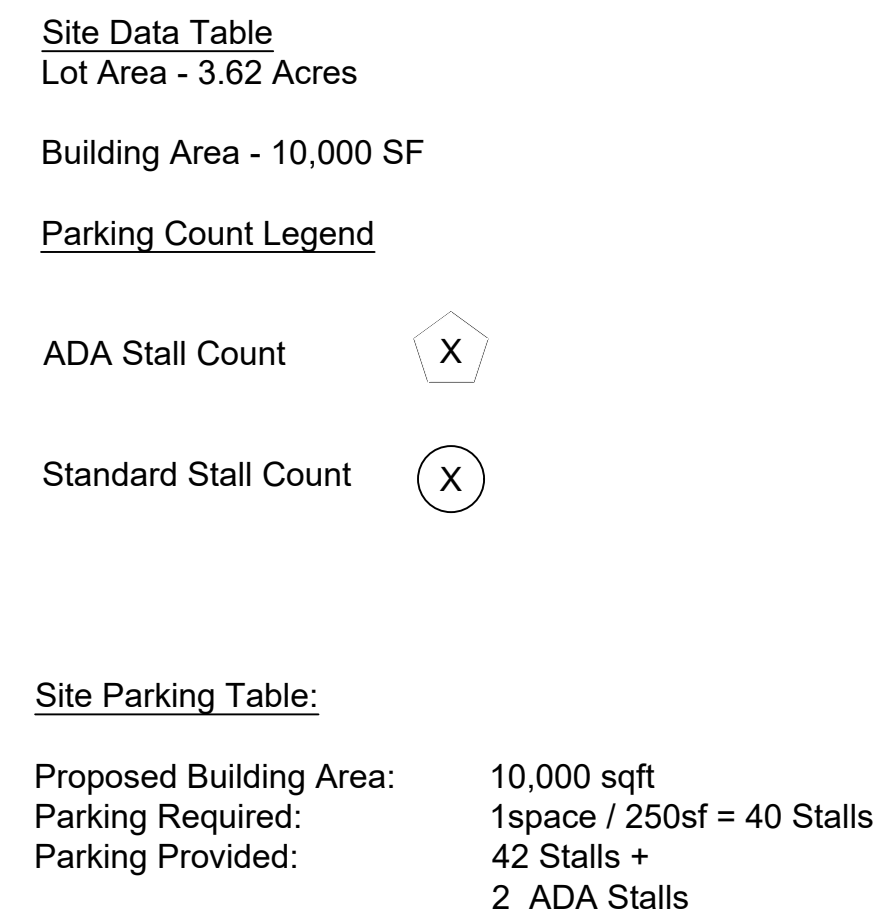


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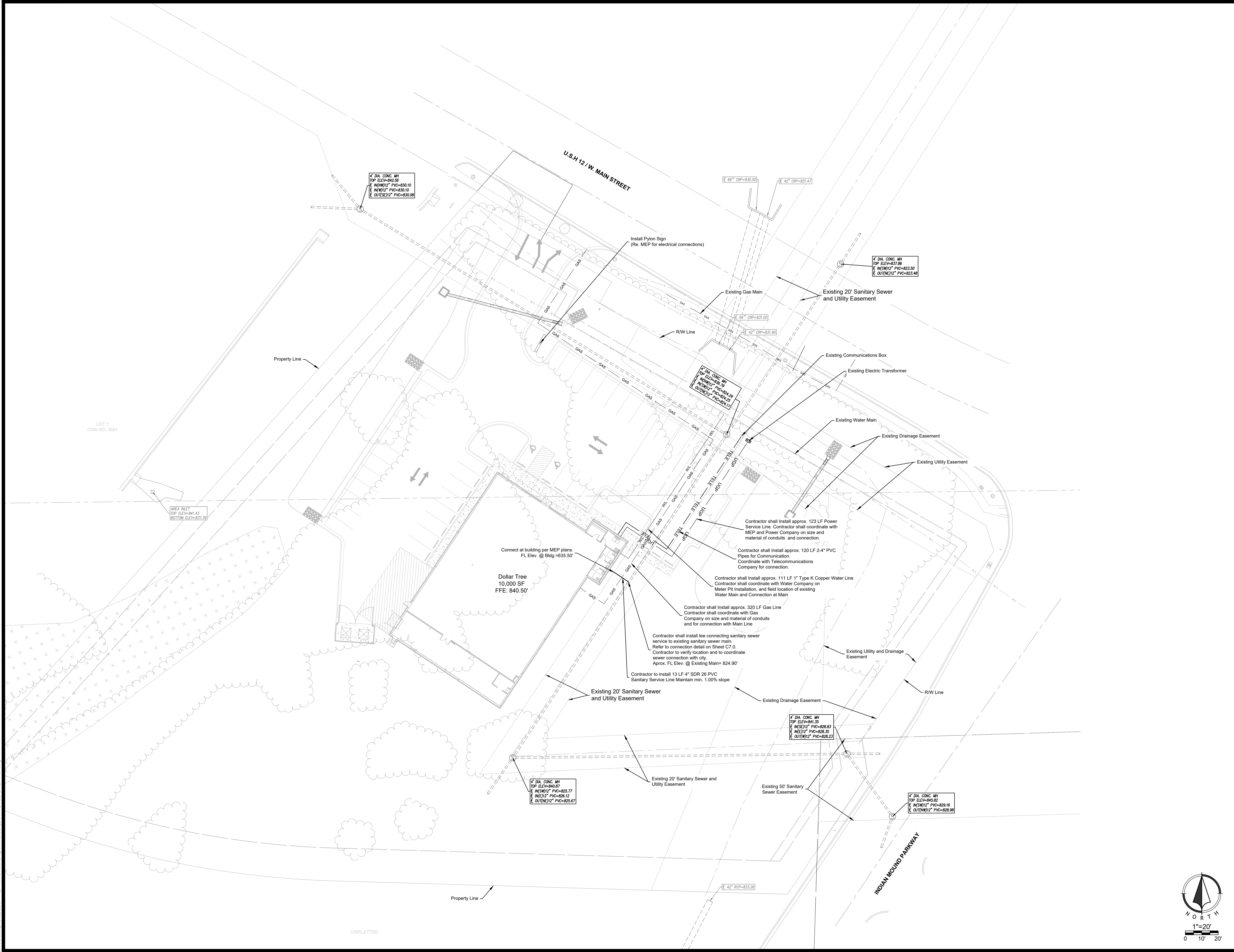
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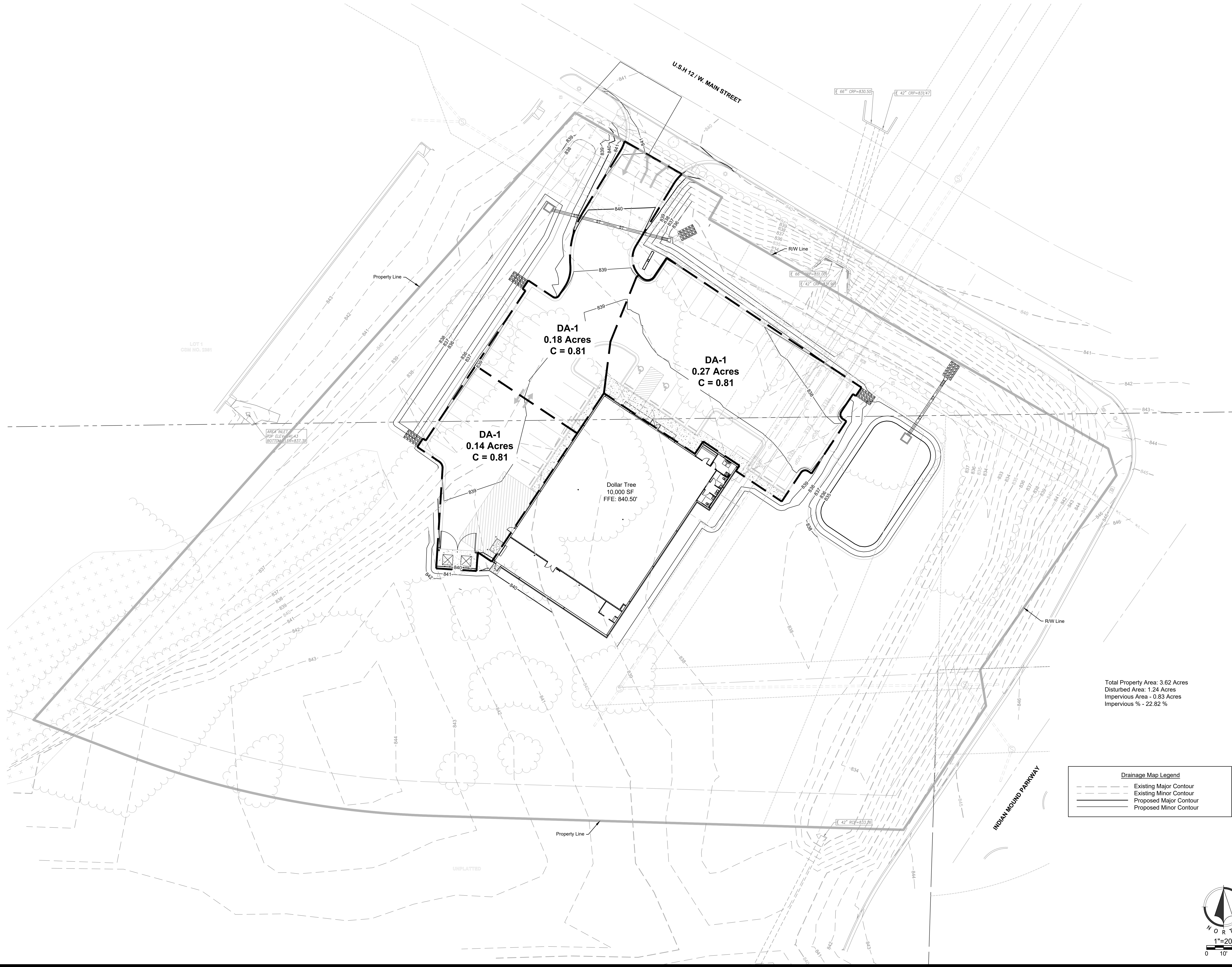


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Total Property Area: 3.62 Acres
Disturbed Area: 1.24 Acres
Impervious Area - 0.83 Acres
Impervious % - 22.82 %

Drainage Map Legend
--- Existing Major Contour
--- Existing Minor Contour
--- Proposed Major Contour
--- Proposed Minor Contour



Construction Documents

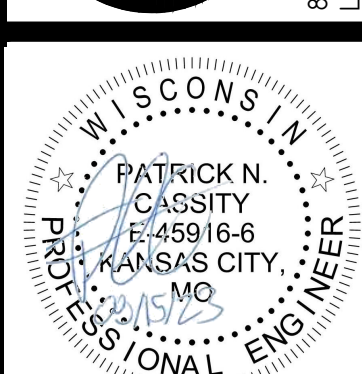
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Dollar Tree
Whitewater, Waukesha County, WI

Drainage Map

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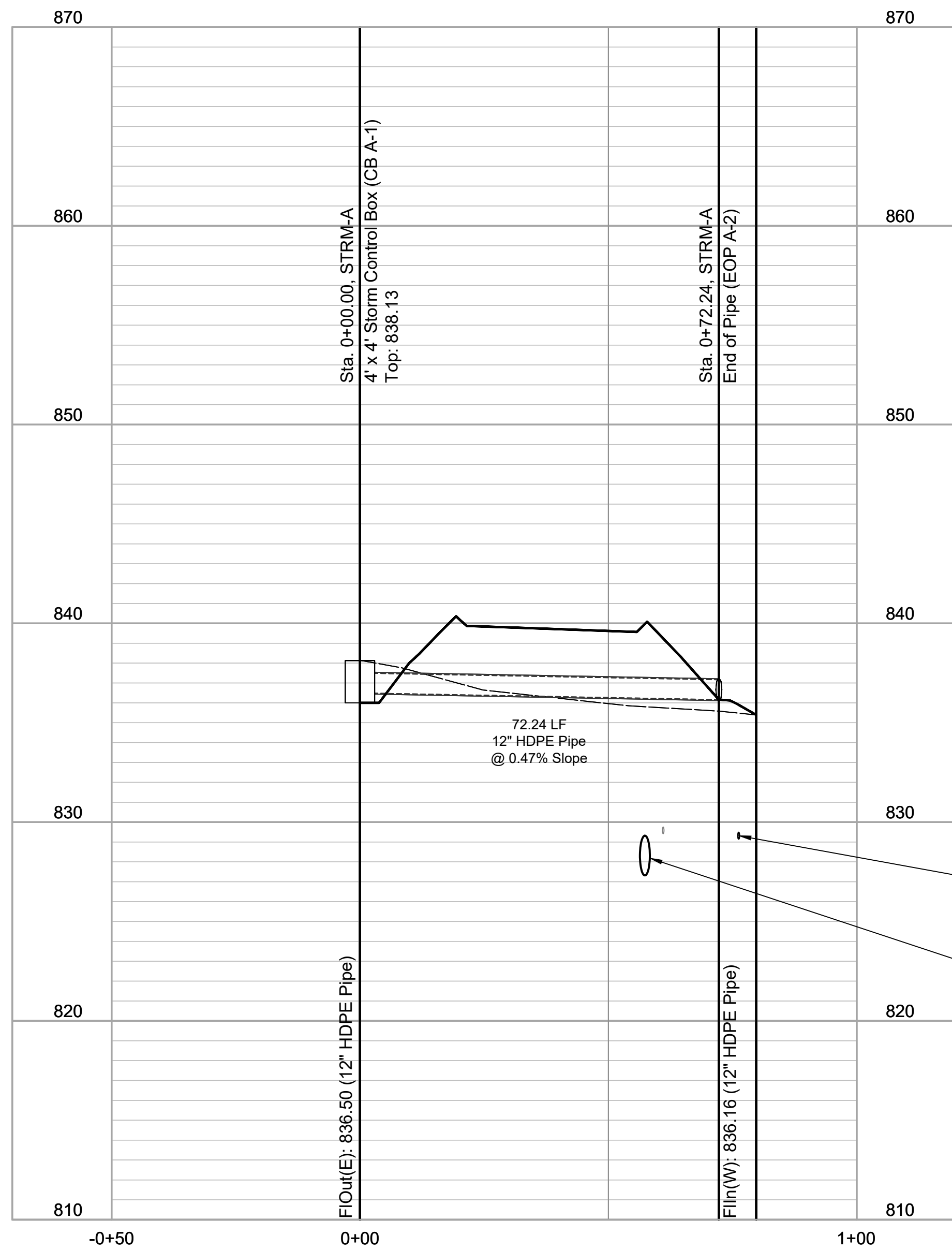
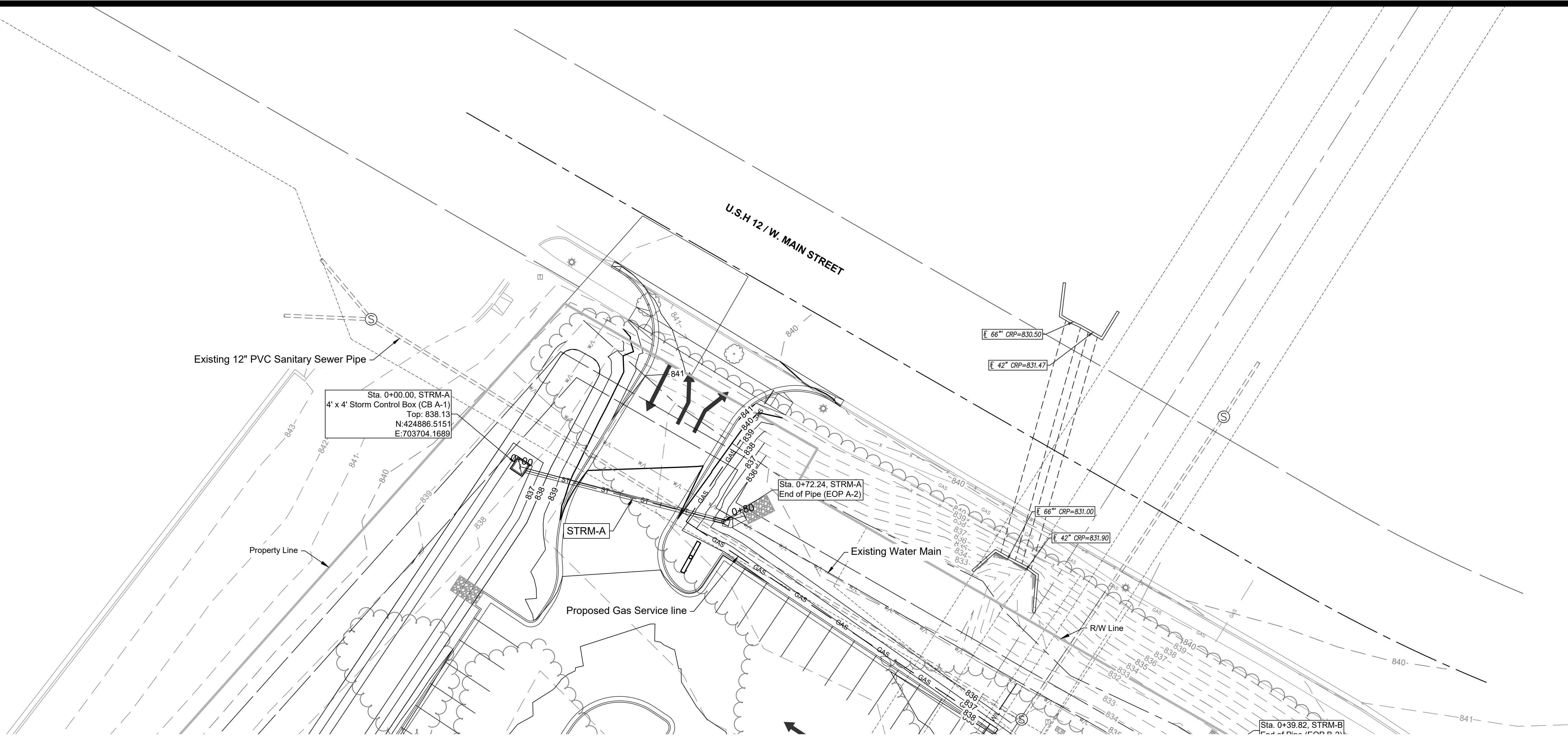
Renaissance Infrastructure Consulting
913.317.9500
www.pccconsult.com
8453 PERDUE LANE
LEWISTON, MICHIGAN 48843



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LOT 1
CBM NO. 2381



Existing Water Main
Assumed Depth, contractor to field verify
prior to construction and relocate if necessary.

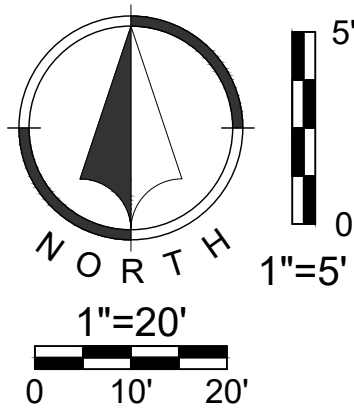
Existing 12" PVC Sanitary Sewer Pipe
FI @ intersection: 827.318'

NOTE:

Contractor Shall fill and compact to 95% of standard density to a point 18" minimum above the top of the proposed storm sewer pipe prior to excavation and installation of the pipe

All coordinates are given to the center of the structures

Profile Legend	
---	Existing Surface
---	Proposed Grading



Construction Documents

22-0111-24
Dollar Tree
Whitewater, Waukesha County, WI

Storm Plan And Profile 1

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Renaissance Infrastructure Consulting

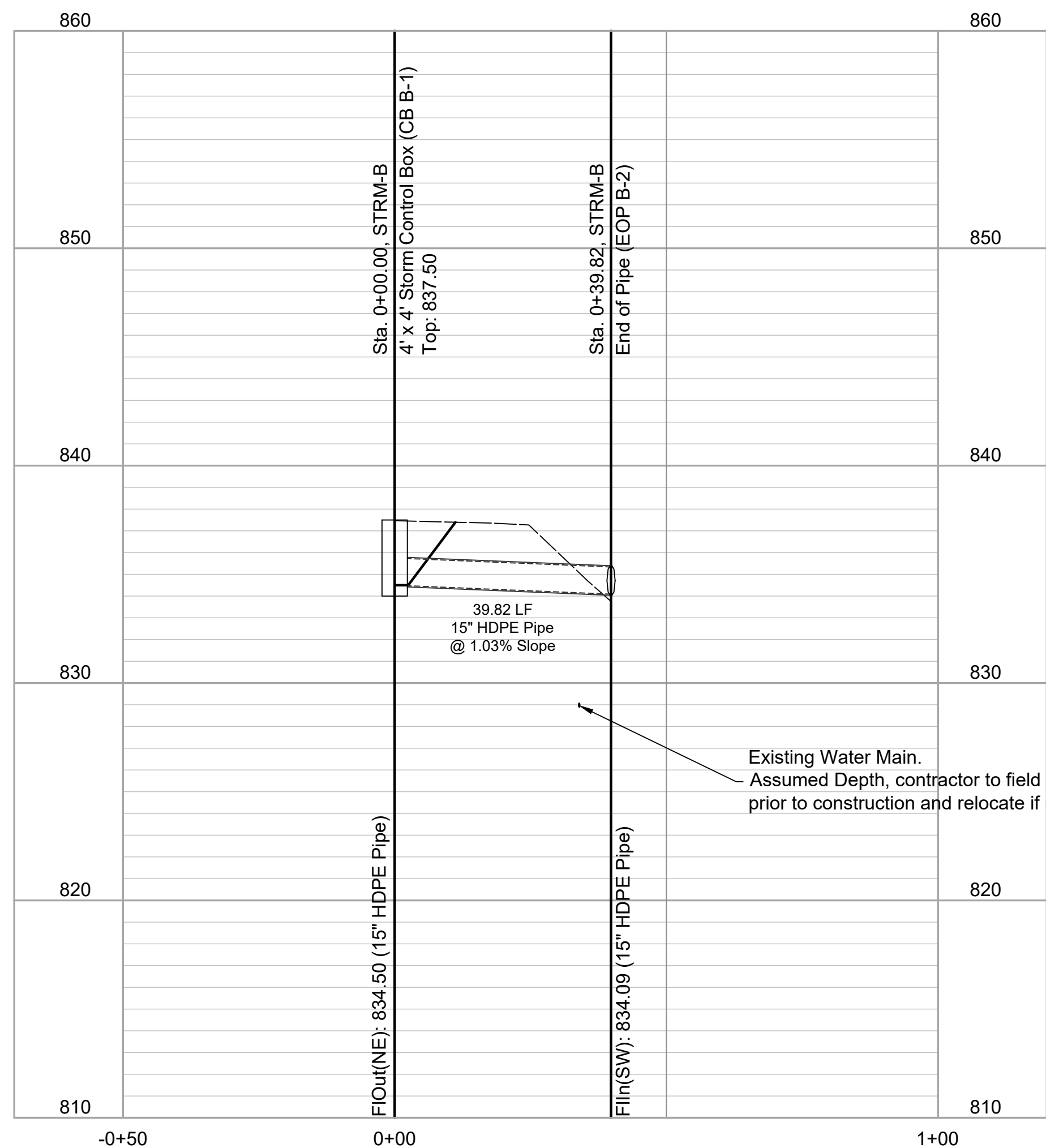
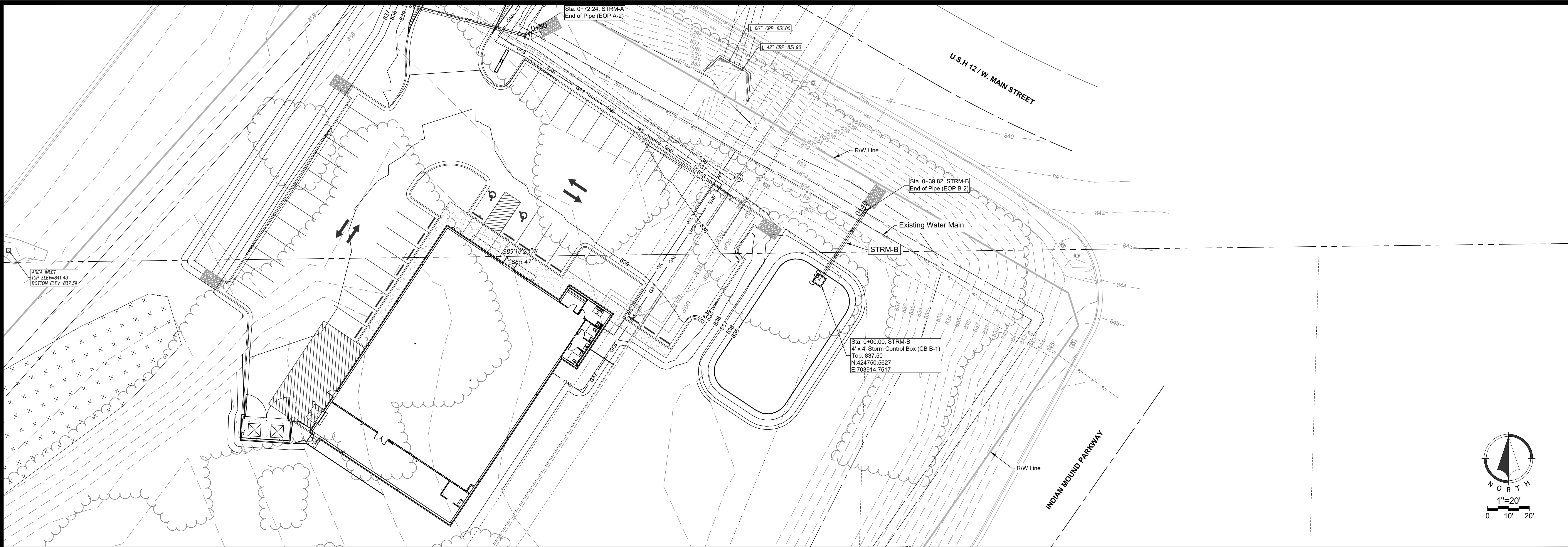
132 ABIE AVENUE
KANSAS CITY, KANSAS 66103
913.317.9500
WWW.RICCONSULT.COM

WI Certificate of Authority: R08918



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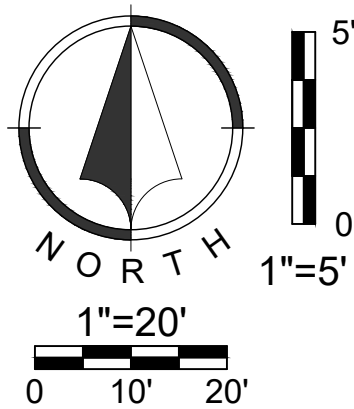
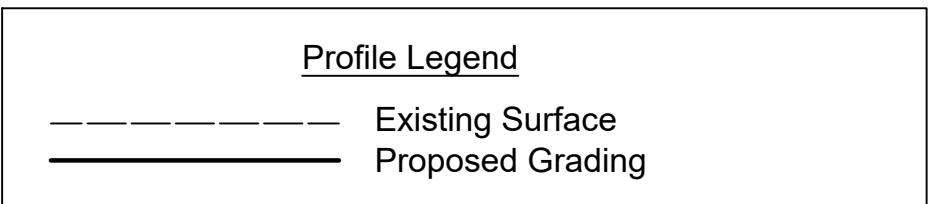
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NOTE:

Contractor Shall fill and compact to 95% of standard density to a point 18" minimum above the top of the proposed storm sewer pipe prior to excavation and installation of the pipe

All coordinates are given to the center of the structures



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Disturbed Area for Site Improvements : 1.24 Acres

EROSION CONTROL LEGEND

- Stabilized Construction Entrance
- Staging Area
- Concrete Washout
- Limits of Disturbance
- Perimeter Silt Fence
- Inlet Protection

EROSION CONTROL NOTES

- Erosion control plan modifications shall be required if the plan fails to substantially control erosion and offsite sedimentation.
- The retention of access controls and sediment controls shall be required for areas where seed has not established 70% cover.
- The contractor shall temporarily seed and mulch all disturbed areas if soil disturbing activities cease and will not resume for more than 14 days. Stabilization activities must also be completed within 14 days.
- Install "J" Hooks on silt fence every 100 LF
- Any location that is being accessed by vehicles needs to have a construction entrance.
- Contractor must keep a broom on site in order to clean up mud tracked on to the streets immediately.
- Any contractor parking that is in a disturbed area must be rocked to prevent tracking of mud.

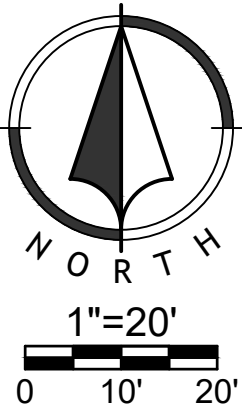
Grading Legend

- Existing Major Contour
- Existing Minor Contour
- Proposed Major Contour
- Proposed Minor Contour

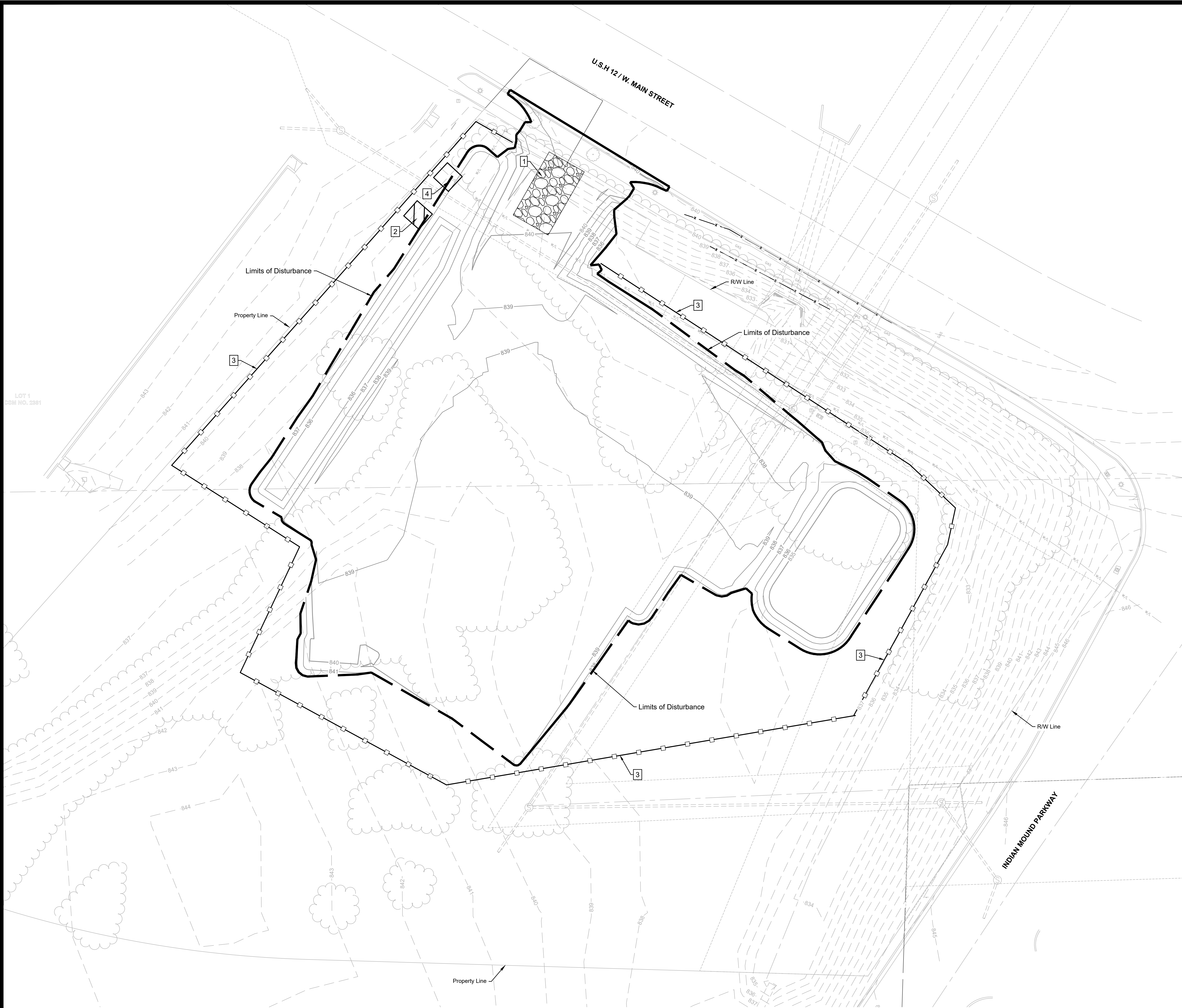
WRITTEN SEQUENCING

- Implement Pre-Clearing Plan:**
All temporary structural BMP's shown on the pre-clearing plan must be in place before the general clearing operations. Clearing necessary to place temporary structural BMP's is the minimum required for installation. Coordinate clearing necessary to place temporary structural BMP's with local weather forecast so that clearing and placement may be completed within a forecast dry period. Stabilize all erosion control measures after installation. Temporary Barrier Fence shall be in Place, around areas not to be disturbed, prior to any construction activities. This area includes Stream Corridor.
- Clear and Stabilize Work Areas:**
Grade contractor areas and place all-weather surface on contractor areas.
- Clearing and Grubbing:**
After Phase I BMP's are installed, contractor may clear, grub, and demo required areas as necessary.

	PROJECT STAGE	PLAN REFERENCE NUMBER	BMP DESCRIPTION	REMOVE AFTER PHASE	NOTES
Phase I	A-Prior to Construction	1	Construction Entrance	II	Install Construction Entrance
		2	Staging Area	II	Install Staging Area
		3	Perimeter Silt Fence	III	Install Silt Fence
		4	Concrete Washout	II	Install Concrete Washout as Shown on Plans Prior to Pouring Any Concrete
Phase II	B - During Land Disturbance & Storm Infrastructure Installation	5	Inlet Protection	III	Install Filter Bags Prior to Construction
Phase III	C-Final Stabilization	6	Establish Perennial Vegetation	N/A	Redistribute Topsoil and Seed and Mulch all Disturbed Area. Stabilization Complete when 100% of Disturbed Area is Established with Perennial Vegetation with a Density of 70%



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Disturbed Area for Site Improvements : 1.24 Acres

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- Stabilized Construction Entrance
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Grading Legend

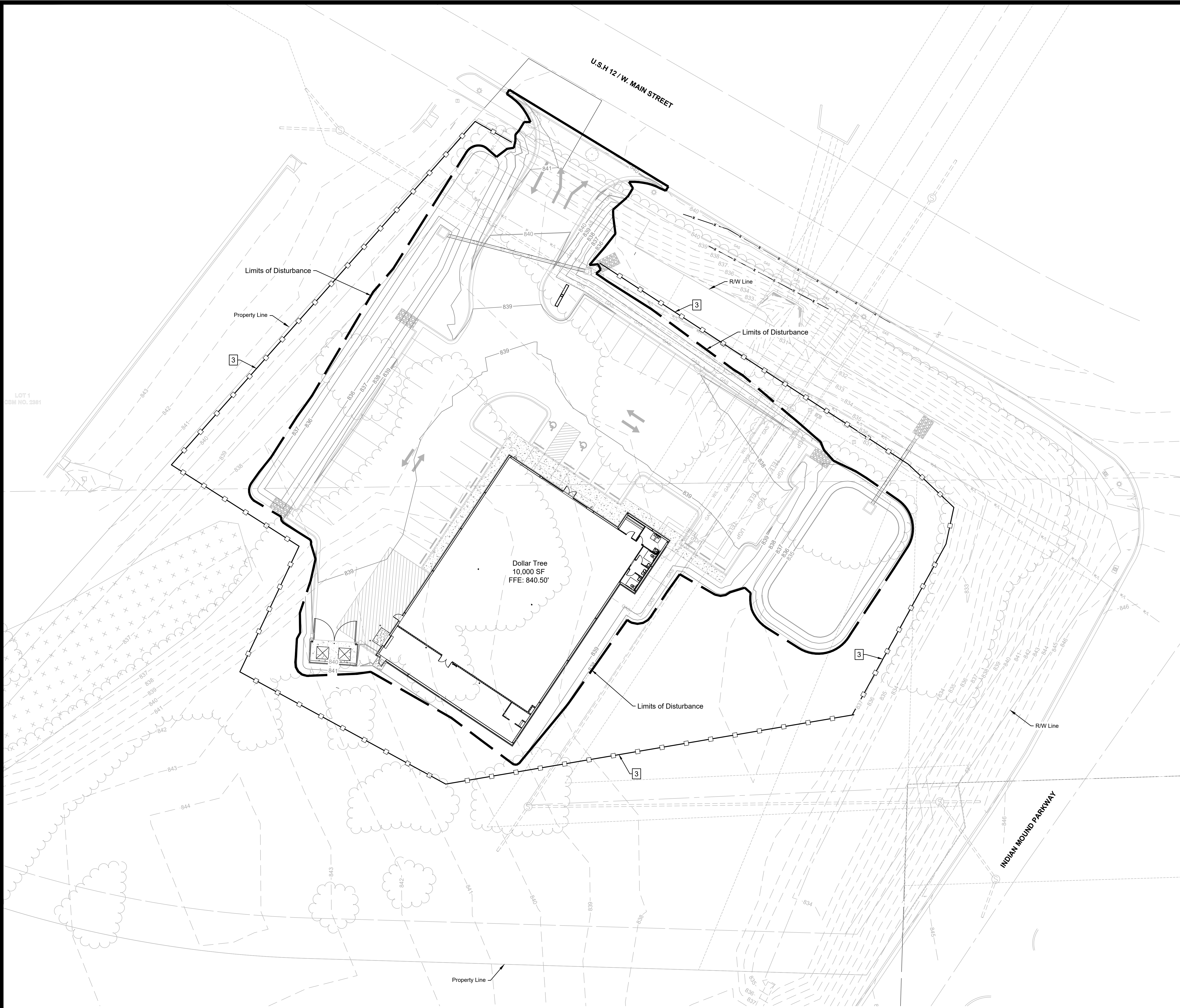
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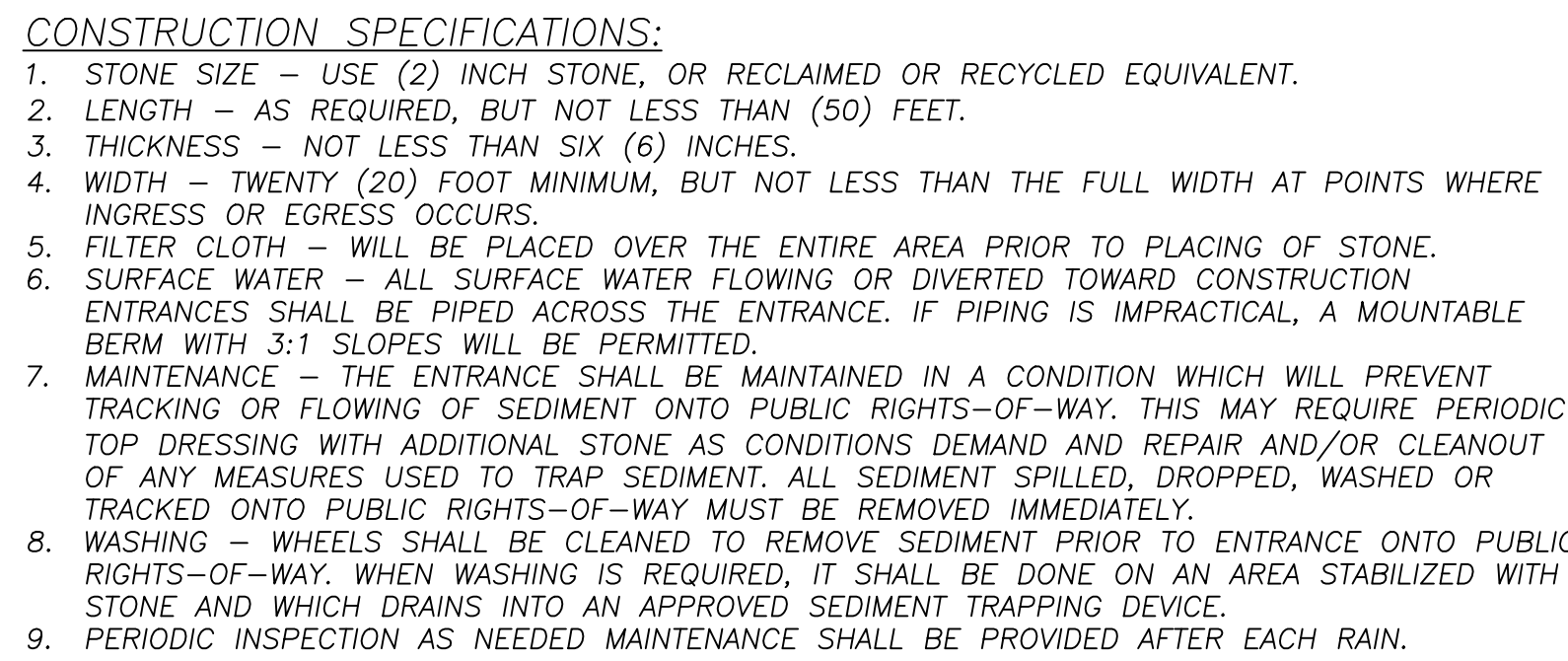
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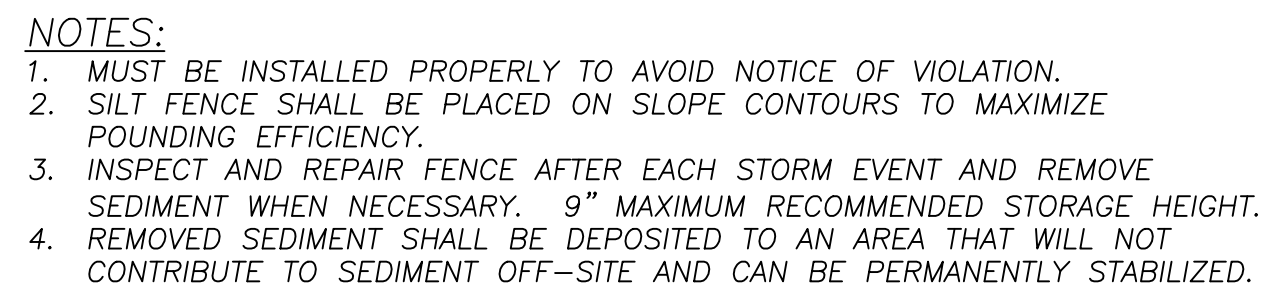
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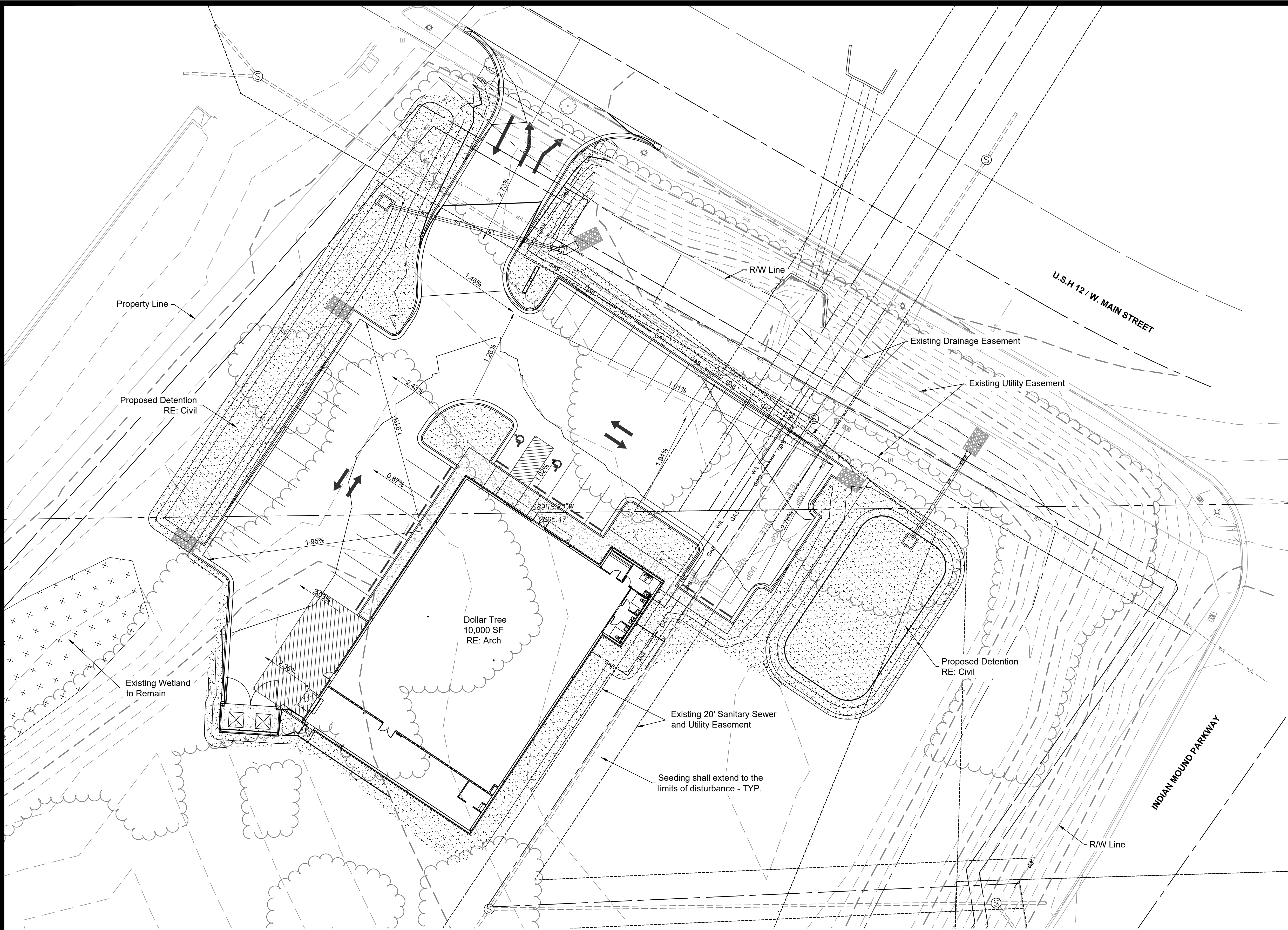


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SECTION 329200 - LAWNS
PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes the following areas of Work:
1. Fine grading and preparing lawn areas.
 2. Furnishing and applying topsoil.
 3. Furnishing and applying limited soil amendments.
 4. Sodding new lawn areas.
 5. Reconditioning existing lawn areas.
 6. Replanting unsatisfactory or damaged lawns.
 7. Maintenance.
- B. Related Work Specified Elsewhere:
1. Trees and Shrubs: SECTION 329300

1.2 REFERENCES

- A. Applicable Standards:
1. American Society for Testing and Materials (ASTM) - Equivalent AASHTO standards may be substituted as approved.

1.3 SUBMITTALS

- A. Certification of each seed mixture for sod, identifying the sod source, including name and telephone number of supplier. Seed for sod must be sod quality and is to be gold tag standards with 0% other crop seed and 0% weed seed.
- B. Certification of each seed type for Native Grass mixture identifying the seed source, including name and telephone number of supplier.
- C. Engineer has final approval of seed grower, no exceptions.
- D. Qualification data for firms and persons specified in the "Quality Assurance" Article to demonstrate their capabilities and experience. Include lists of completed projects with project names and addresses, names and address of architects and owners, and other information specified.
- E. Material test reports from qualified independent testing agency indicating and interpreting test results relative to compliance of the following materials with requirements indicated.
1. Agronomic and biological analysis of existing surface soil.
 2. Agronomic and biological analysis of all imported topsoil.
- F. Maintenance instructions recommending procedures to be performed by Owner for maintenance of landscaping during an entire year. Submit before expiration of required maintenance periods.

1.4 QUALITY ASSURANCE

- A. Qualifications: A qualified subcontractor shall employ or provide a qualified installation manager who meets any or all of the required qualifications:
1. Bachelor of Science Degree in Horticulture, Botany, Soil Physics, Agronomy, General Agriculture, Agricultural or Biological Engineering, or a related field.
 2. An individual with field experience as approved by the Landscape Architect or Registered Engineer.
- B. Installer Qualifications: Engage an experienced installer who has completed landscaping work similar in material, design, and extent to that indicated for this Project and with a record of successful turf establishment.
1. Installer's Field Supervision: Require Installer to maintain an experienced full-time supervisor on the Project site during

times that turf planting is in progress.

- C. Testing Agency Qualifications: To qualify for acceptance, an independent testing agency must demonstrate to Landscape Architect's satisfaction, based on evaluation of agency-submitted criteria conforming to ASTM E 699, that it has the experience and capability to satisfactorily conduct the testing indicated without delaying the Work.

- D. Topsoil Analysis: Furnish a soil analysis made by a qualified independent soil-testing agency stating percentages of organic matter by Loss on ignition, inorganic matter (proportion of silt, clay, and sand), deleterious material including biological contamination, pH, mineral and plant-nutrient content of topsoil, and cationic exchange capacity.

1. Report suitability of topsoil for grass growth from horticulturist. State recommended quantities of nitrogen, phosphorus, and potash nutrients and any limestone, aluminum sulfate, or other soil amendments to be added to produce satisfactory topsoil.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Sod: Harvest, deliver, store, and handle sod according to the requirements of the Turfgrass Producers International (TPI) "Specifications for Turfgrass Sod Materials and Transplanting/Installing."
- B. Native Seed: Deliver packaged materials in containers showing weight, analysis and name of manufacturer. Protect materials from deterioration during delivery and while stored at site.

1.6 COORDINATION AND SCHEDULING

- A. Planting Season: Install seed during normal planting seasons for type of lawn work required. Correlate planting with specified maintenance periods to provide required maintenance from date of Substantial Completion.
- B. Weather Limitations: Proceed with work only when existing and forecast weather conditions are suitable for work.

1.7 MAINTENANCE

- A. Lawns/turf areas: Begin maintenance of turfgrass immediately after each area is planted and continue until acceptable establishment, but for no less than the following periods:
1. Seeded Lawns: 90 days after date of Substantial Completion.
- B. Maintain and establish lawns by watering, fertilizing, weeding, mowing, trimming, replanting and other operations per this Specification.
- C. Watering: Subcontractor shall be responsible of watering the sod as required by this Specification. Subcontractor may use irrigation system to accomplish watering. Subcontractor shall be responsible for coordinating with irrigation contractor for scheduling of irrigation system to provide required water needs.
- D. Post-fertilization: Apply fertilizer to lawn after first mowing and when grass is dry.

PART 2 - PRODUCTS

2.1 TOPSOIL

- A. Standard Topsoil: ASTM 5268, pH range 5.5 to 7. Free of stones 1 inch or larger in any dimension, and other extraneous materials harmful to plant growth.
- B. Weather Limitations: Proceed with work only when existing and forecast weather conditions are suitable for work.

2.2 LIMITED SOIL AMENDMENTS

- A. Herbicides: EPA registered and approved, of type recommended by manufacturer and approved by the Landscape Architect.
- B. Compost: Well-composted, stable and weed-free organic matter, pH range of 5.5-8; moisture content 35-55 percent by weight; 100 percent passing through 3/4-inch sieve; soluble salt content less than 4 deiciemens/m; not exceeding 0.5 percent inert contaminants and free of substances toxic to plantings.
- C. Water: Potable.

2.3 GRASS SEED:

- A. Provide fresh, clean, new crop seed complying with tolerance for purity and germination established by Official Seed Analysts of North America and as required below.
- B. Be labeled according to the U.S. Department of Agriculture Federal Seed Act and shall be furnished in containers with tags showing seed mixture, purity, germination, weed content, name of seller, and date on which seed was tested.

- C. Seed Mix: 10% Bluegrass & 90% Turf-Type Tall Fescue, composed of an equal mix of three or four compatible species of bluegrass and one or two species of fescue. The mixture shall not include any varieties of the slower growing "Dwarf" fescue types.

1. Fescue Varieties, or approved equal
Apache, Arid, Austin, Bonanza, Carefree, Cheifan, Cimmaron, Cochise, Falcon, Guardian, Hounddog, Jaguar II, Maverick II, Mustang, Olympic, Phoenix, Rebel II, Rebel 3D, Safari, Shenandoah, Thoroughbred, Titan, Tribute, Vegas

2. Bluegrass Varieties, or approved equal
a. Asset, Kenblue, Midnight, Nassau, Ruby II, Troy

3. Moldy seed or seed that has been damaged in storage shall not be used.
4. All seed shall be hulled and/or coated for optimum growth performance and quicker establishment.

5. Landscape Architect shall have final approval of all seed blends and mixtures.
- D. Cover Crop: As approved by Landscape Architect, Contractor shall submit mix for approval.

2.4 FERTILIZER

- A. Post Seeding Commercial fertilizer of neutral character, with some elements derived from organic sources, containing not less than 1 lbs. of actual nitrogen per 1,000 square feet of lawn area. Fertilizer shall be applied per manufacturers recommendations.
- B. Commercial Starter Fertilizer: Prior to the use of a starter fertilizer, the contractor shall perform a soil test and amend soil as required to ensure optimum growth performance. Starter fertilizer shall be applied per manufacturers recommendations.

- C. Deliver to site in labeled bags or containers.

2.5 MYCORRHIZAL INOCULANT

- A. The Subcontractor shall utilize an organic, mycorrhizal inoculant for soil prep. The material shall be granular and applied per manufacturer's recommendation. M-Roots w/ Mycorrhiza or approved equal. For exact finish, insert names of coating manufacturers and products.

2.6 STRAW MAT

- A. Provide a biodegradable single net, two sided organic straw mat with functional longevity of 10-12 months by Greenfix America, Product WS072 Double Net Straw or Approved Equal.
- B. Utilize Straw Mat for dormant seeding and on slopes greater than 4:1.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas to receive lawns for compliance with requirements and for conditions affecting performance of work of this Section. Do not proceed with installation until unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Protect structures, utilities, sidewalks, pavements, and other facilities, trees, shrubs, and plantings from damage caused by planting operations.
- B. Provide erosion-control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.

3.3 SOIL PREPARATION

- A. Dispose of any growth, rocks, or other obstructions which might interfere with tilling, seeding, sodding, or later maintenance

- operations. Remove stones over 38 mm (1 1/2 inches) in any dimension and sticks, roots, rubbish, and other extraneous matter.

- B. Thoroughly loosen and pulverize topsoil to a depth of at least 100 mm (4 inches) for all standard turfgrass areas.

- C. Grade lawn areas to a smooth, even surface with loose, uniformly fine texture. Roll and rake, remove ridges and fill depressions to meet finish grades. Limit fine grading to areas which can be planted within immediate future.

- D. Moisture prepared lawn areas before planting if soil is dry. Water thoroughly and allow surface to dry off before planting of lawns. Do not create a muddy soil condition.

- E. Restore prepared areas to specified condition if eroded or otherwise disturbed after fine grading and prior to planting.
- F. Spread top soil mixture to depth required to meet thickness, grades, and elevations indicated after light rolling and natural settlement.

- G. Allow for sod thickness in areas to be sodded.

- H. Preparation of Unchanged Grades: Where lawns are to be planted in areas that have not been altered or disturbed by excavation, grading, or stripping operations, prepare soil for lawn planting as follows:

1. Remove and dispose of existing grass, vegetation, and turf. Do not turn over into soil being prepared for lawns.
2. Till surface soil to a depth of at least 6 inches. Apply required soil amendments and initial fertilizers and mix thoroughly into top 4 inches of soil. Trim high areas and fill in depressions. Till soil to a homogenous mixture of fine texture.
3. Clean surface soil of roots, plants, sod, stones, clay lumps, and other extraneous materials harmful to plant growth.
4. Remove waste material, including grass, vegetation, and turf, and legally dispose of it off the Owner's property.

3.4 SEEDING NEW LAWNS:

- A. Do not use wet seed or seed which is moldy or otherwise damaged in transit or storage.
- B. Sow seed with a Brillion type seeding machine or where applicable and restricted by steep slopes or other areas not accessible to the seeding machine, broadcast or drop seed methods may be used. Do not broadcast or drop seed when wind velocity exceeds 5 mph. Evenly distribute seed by sowing equal quantities in 2 directions at right angles to each other, and 3 directions in high maintenance areas, as directed by the Engineer.
- C. Sow not less than rate of 8 pounds per 1,000 square feet.
- D. Rake seed lightly into top 1/8 inch of soil, roll lightly, and water with fine spray.
- E. Protect seeded slopes exceeding 1:4 against erosion with erosion-control blankets installed and stapled according to manufacturer's recommendations.

- F. Protect seeded areas with slopes less than 1:4 against erosion by spreading mulch as specified after completion of seeding operations. Spread uniformly to form a continuous blanket over seeded areas. Spread by hand, blower, or other suitable equipment.
- G. Seasonal Limitations:
1. Perform seeding only during the following seasons:
 - a. Recommend seeding when temperatures ranging from 50 degrees Fahrenheit to 70 degrees Fahrenheit for a minimum 6 week period.

1. Methods of Application:
1. Dry Seeding: Spreader or seeding machine.
 2. Hydroseeding: Mix seed, fertilizer and pulverized mulch with water and constantly agitate. Do not add seed to water more than 4 hours before application:
 - a. On slopes of 2 horizontal to 1 vertical or flatter, apply seed separately from fertilizer. Cover seed with soil to an average depth of 13 mm (1/2 inch) by raking or other approved methods.
 - b. On slopes steeper than 2 horizontal to 1 vertical, seed and fertilizer may be applied in a single operation. Incorporation into the soil will not be required.

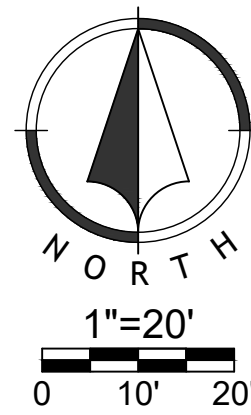
3.5 RECONDITIONING LAWNS:

SEEDING NOTES

1. SEEDING SHALL OCCUR AS REQUIRED BY THE SPECIFICATIONS. SEEDING AT OTHER TIMES WILL REQUIRE A COVER CROP APPROVED BY THE ENGINEER AND CITY CODE. DORMANT SEEDING SHALL BE APPROVED BY THE ENGINEER.
2. GRADED AREAS SHALL PROVIDE A SMOOTH UNIFORM SLOPE, FREE FROM RILLS AND GULLEYS.
3. THE TOP FOUR INCHES OF SOIL SHALL BE FERTILE SOIL SUITABLE FOR SEED GROWTH.
4. PRIOR TO APPLICATION OF SEED, CONTRACTOR SHALL LOOSEN ALL SOILS TO A DEPTH OF ONE INCH. THE AREA SHALL BE RAKED FREE OF ALL ROCKS AND DEBRIS ACCORDING TO THE SPECIFICATION.
5. ALL AREAS TO BE SEEDED LOCATED ON SLOPES STEEPER THAN 4:1 (H:V) SHALL USE SPECIFIED TURF REINFORCEMENT MAT. ALL TRM SHOWN ON THE PLANS SHALL BE CONSIDERED CONCEPTUAL. CONTRACTOR TO VERIFY AND INSTALL ON ALL SLOPES EXCEEDING 4:1 AFTER FINAL GRADING IS ESTABLISHED.
6. ALL SEEDED ARES SHALL BE DRAGGED OR RAKED BEFORE BEING COVERED WITH THE SPECIFIED TRM. MAT SHALL BE PLACED PRIOR TO EXPOSURE TO ADVERSE WEATHER.
7. THE CONTRACTOR MUST PROVIDE THE OWNER'S REPRESENTATIVE DOCUMENTATION FROM THE SUPPLIER THAT EACH LOT OF SEED MEETS OR EXCEEDS THE SPECIFIED STANDARD.
8. ALL SEED MUST BE TESTED BY A REGISTERED SEED TECHNOLOGIST PER AOSA METHODS AND MEET ALL REQUIREMENTS ESTABLISHED BY THE STATE DEPARTMENT OF AGRICULTURE.
9. AFTER COMPLETION OF WORK, CONTRACTOR SHALL WATER SEEDED AREAS DAILY. SATURATING THE MAT AND UNDERLYING SEED BED. CONTRACTOR SHALL CONTINUE WATERING UNTIL PLANT ESTABLISHMENT HAS OCCURRED OR BY NOTIFICATION FROM LANDSCAPE ARCHITECT. NOT WATERING DUE TO RAIN EVENT SHALL BE DOCUMENTED AND APPROVED BY THE GENERAL CONTRACTOR. WATERING LOGS SHALL BE SUPPLIED TO THE OWNER OR ENGINEER.
10. CONTRACTOR SHALL PROVIDE AN AUTOMATIC IRRIGATION SYSTEM FOR ALL SEEDED AREAS PER THE OWNER'S DIRECTION. CONTRACTOR SHALL SUBMIT SHOP DRAWING OF PROPOSED IRRIGATION SYSTEM & COVERAGE AREAS FOR OWNER APPROVAL PRIOR TO INSTALLATION. IRRIGATION SYSTEM SHALL PROVIDE FOR THE CONTROLLER, WEATHER SENSOR, AND REQUIRED BACKFLOW DEVICES PER STATE AND LOCAL CODES.

PLANT SCHEDULE

GROUND COVERS	BOTANICAL / COMMON NAME	CONT	SPACING	QTY
	Turfgrass Seed Tall Fescue Seed / Fescue Seed	SEED		20,157 sf



Construction Documents

22-0111-24
Dollar Tree
Whitewater, Waukesha County, WI

Seeding Plan

NO.	DATE	REVISION
DRAWN BY	AFB	CHECKED BY
		PNC

Renaissance
Infrastructure
Consulting

913.317.9500
www.ircconsulting.com

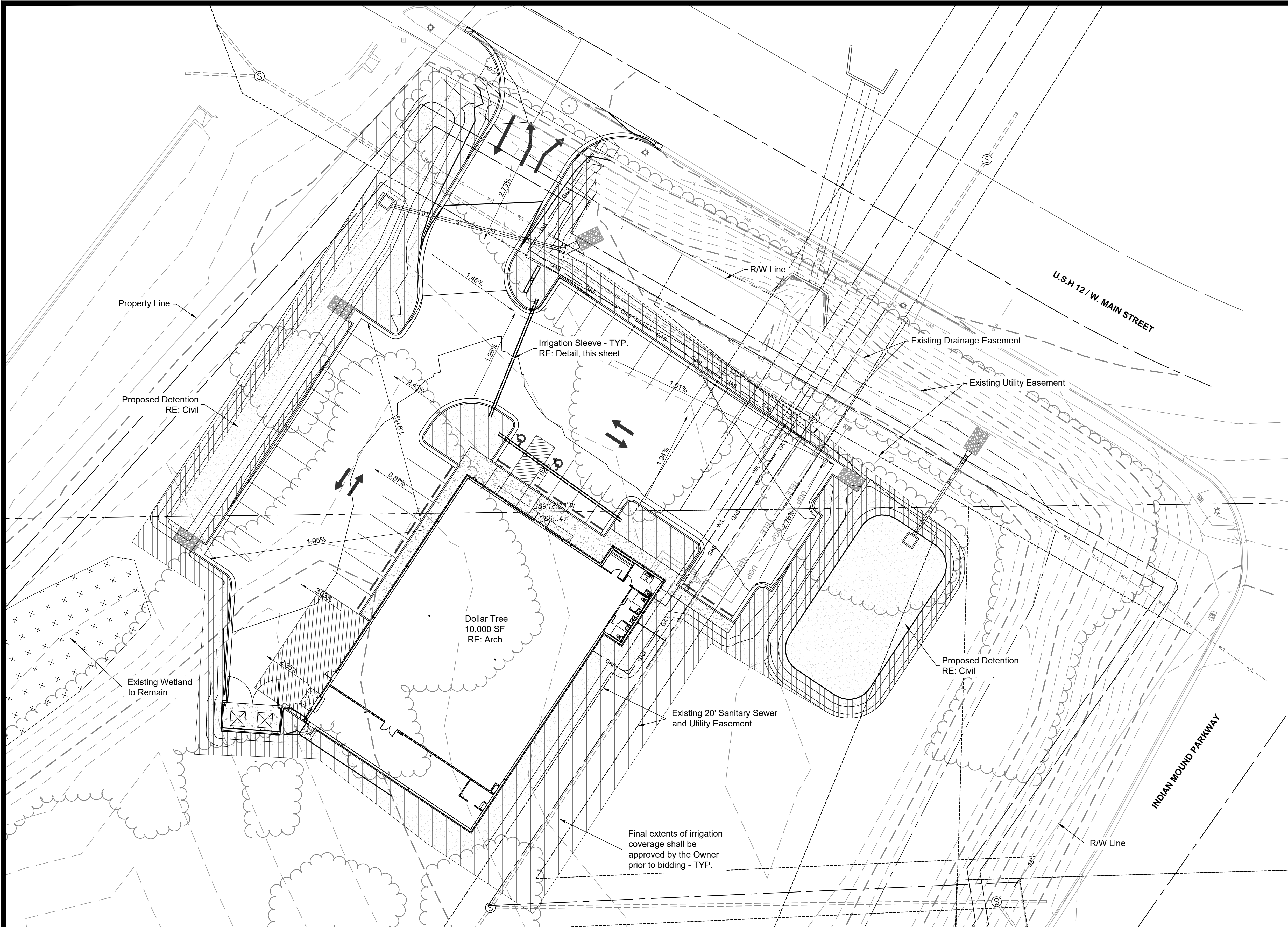
8463 PERDUE LANE
LEWISVILLE, KANSAS 66040

WI Certificate of Authority: R08918

WISCONSIN
PROFESSIONAL ENGINEER
PATRICK N. CASSIDY
#45916-6
KANSAS CITY, MO

Sheet
C6.4

almandzbeato
Aug 17, 2023 2:24pm
C:\Users\almandzbeato\Documents\2023\2023-011104-Whitewater\Draw Sheets\CD22-0111-24-CDJ-IND-01.dwg



IRRIGATION NOTES

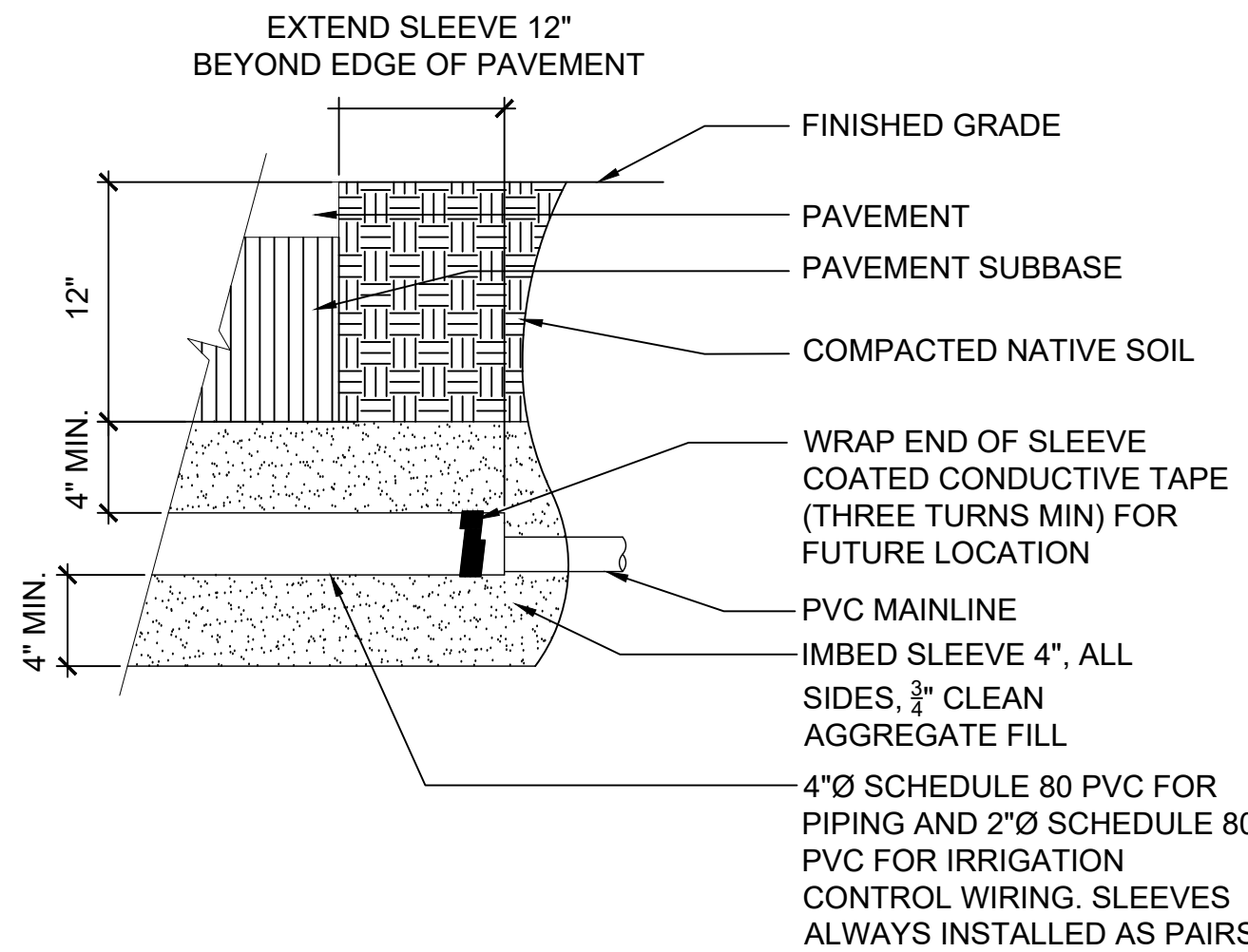
1. IRRIGATION SHALL BE PROVIDED THROUGHOUT THE LIMITS SHOWN.
2. IRRIGATION CONTRACTOR IS RESPONSIBLE FOR VERIFYING LOCATION OF ALL UTILITIES AND MAKING NECESSARY ADJUSTMENTS TO THE IRRIGATION SYSTEM TO ACCOMMODATE THE INFRASTRUCTURE.
3. IRRIGATION CONTRACTOR SHALL COORDINATE SLEEVE INSTALLATION TO OCCUR PRIOR TO CONSTRUCTION OF PAVEMENT, WALL OR OTHER SURFACE IMPROVEMENTS.
4. IRRIGATION CONTRACTOR SHALL DESIGN AND PROVIDE A WORKING IRRIGATION SYSTEM BASED ON THE AVAILABLE PRESSURE. IT SHALL BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO VERIFY AVAILABLE PRESSURE PRIOR TO SYSTEM DESIGN. IRRIGATION SYSTEM SHALL BE COMPLETE IN EVERY RESPECT AND READY FOR OPERATION AS SATISFACTORY TO CONTRACT.
5. IRRIGATION PIPING FLOW VELOCITY SHALL NOT EXCEED 5 FEET PER SECOND.
6. IRRIGATION SYSTEM STATIC PRESSURE RANGE SHALL NOT VARY BY MORE THAN 10%.
7. IRRIGATION CONTRACTOR SHALL DESIGN SYSTEM LATERAL PIPING TO LIMIT PRESSURE DROPS TO LESS THAN 20% OF THE AVERAGE SPRINKLER OPERATING PRESSURE.
8. IRRIGATION CONTRACTOR SHALL INSTALL HEADS AND NOZZLE TYPES OF THE SAME MANUFACTURER AND PRESSURE RATING WITHIN THE SAME IRRIGATION ZONE.
9. IRRIGATION CONTRACTOR SHALL ZONE THE IRRIGATION SYSTEM ACCORDING TO MICROCLIMATES AND PLANT WATER REQUIREMENTS. ZONE TURF, TREE AND PLANT BED AREAS SEPARATELY.
10. DESIGN IRRIGATION SYSTEMS TO AVOID OVER SPRAY, AVOID SPRAY BLOCKAGE FROM ADJACENT ABOVE GROUND UTILITIES AND AVOID MISTING FROM EXCESSIVE PRESSURE.
11. IRRIGATION CONTRACTOR SHALL DESIGN ALL SPRINKLER LAYOUTS FOR OVERLAPPING HEAD TO HEAD COVERAGE. DESIGN ALL SPRINKLER LAYOUTS AT 45% OF MANUFACTURER DIAMETER.
12. IRRIGATION CONTRACTOR SHALL PROVIDE QUICK COUPLER VALVES ALONG THE MAINLINE AT 200' ON-CENTER. QUICK COUPLER VALVES SHALL BE PLACED ON A SINGLE SEPARATE ZONE.
13. IRRIGATION CONTRACTOR SHALL PROVIDE FOR A MASTER CONTROL VALVE
14. IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND INSTALLING POC, BACKFLOW DEVICE AND GATE VALVES.
15. WHEN EXISTING IRRIGATION SYSTEM IS PRESENT, IRRIGATION CONTRACTOR SHALL MODIFY EXISTING SPRINKLER HEADS & NOZZELS TO AVOID OVERSPRAY ONTO NEW CONSTRUCTION. REPOSITION EXISTING HEADS AS NECESSARY TO ACHIEVE HEAD TO HEAD COVERAGE
16. IRRIGATION CONTRACTOR SHALL DESIGN THE IRRIGATION SYSTEM SO THAT PRECIPITATION RATES DO NOT EXCEED INFILTRATION RATES.
17. IRRIGATION CONTRACTOR TO PROVIDE A MINIMUM OF TWO SPARE CONTROL WIRES TO ALL REMOTE MAINLINE LEGS.
18. IRRIGATION CONTRACTOR SHALL DESIGN MAINLINE FLOW BASED UPON THE LARGEST ZONE GPM COMBINED WITH A SINGLE QUICK COUPLER AT 20 GPM. DESIGN ZONES FOR FULL RATED WORKING PRESSURE FOR THE SELECTED WATER DELIVERY MEDIA WITH AT LEAST ONE QUICK COUPLER AT 20 GPM OPERATING SIMULTANEOUSLY.
19. LOCATE VALVE BOXES, VALVES AND QUICK COUPLER VALVES IN BEDS AND TURF AREAS AT LEAST 36 INCHES FROM HARDSCAPE EDGES.
20. WHEN EXISTING IRRIGATION SYSTEM IS PRESENT, IRRIGATION CONTRACTOR SHALL VERIFY CONDITION OF EXISTING SYSTEM PRIOR TO BIDDING. IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR CONNECTIONS TO EXISTING SYSTEM AND SHALL PROVIDE FOR A WORKING SYSTEM FOR BOTH NEW AND EXISTING WITHIN THE LIMITS OF WORK.
21. IRRIGATION CONTRACTOR SHALL PROVIDE AN AUTOMATIC CONTROLLER WITH ENOUGH ZONES TO ADEQUATELY COVER ALL PROPOSED ZONES & A MINIMUM OF 20% ADDITIONAL ZONES FOR FUTURE EXPANSIONS. CONTROLLER SHALL BE CAPABLE OF UTILIZING A RAIN SENSOR.
22. IRRIGATION CONTRACTOR SHALL PROVIDE A RAIN SENSOR FOR AUTOMATIC SHUT OFF.
23. IRRIGATION CONTRACTOR SHALL PROVIDE SYSTEM DESIGN DRAWINGS SHOWING ALL WORK PROPOSED PRIOR TO CONSTRUCTION. FOR OWNER APPROVAL.
24. IRRIGATION CONTRACTOR SHALL DOCUMENT FINAL LAYOUT OF BOTH NEW AND EXISTING IRRIGATION SYSTEMS IN AN AS-BUILT DRAWING AND SUBMIT TO OWNER FOR FINAL RECORD.
25. DRAWINGS AND SPECIFICATIONS DO NOT INDICATE OR DESCRIBE TOTAL WORK REQUIRED FOR COMPLETION OF WORK AND MAY NOT COVER SOME CONDITIONS WHICH MAY BE REQUIRED. CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE A WORKING IRRIGATION SYSTEM TO SUSTAIN PLANT LIFE PER SITE CONDITIONS.

LEGEND

-  Spray Irrigation Area
-  Irrigation Sleeve

SLEEVE NOTES

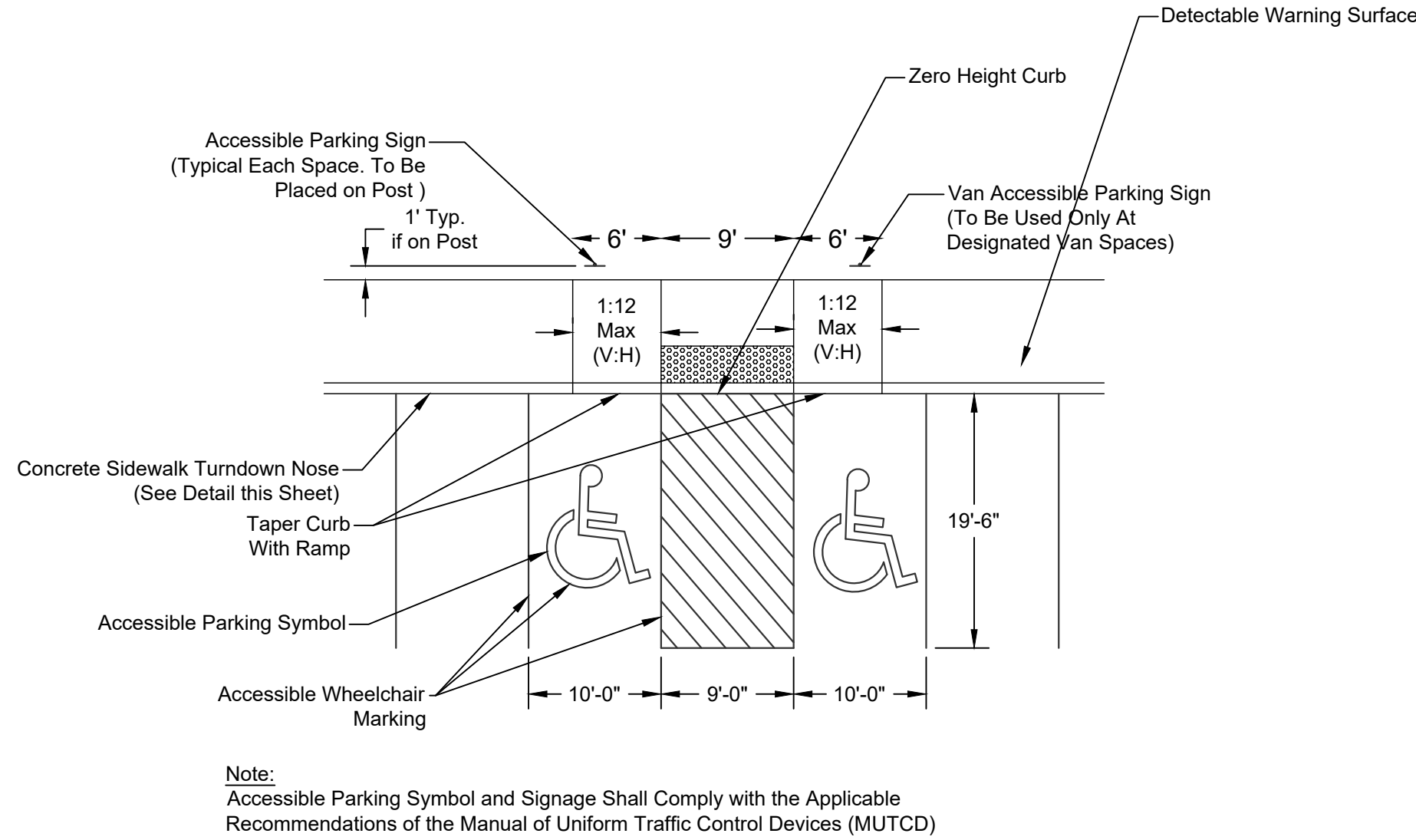
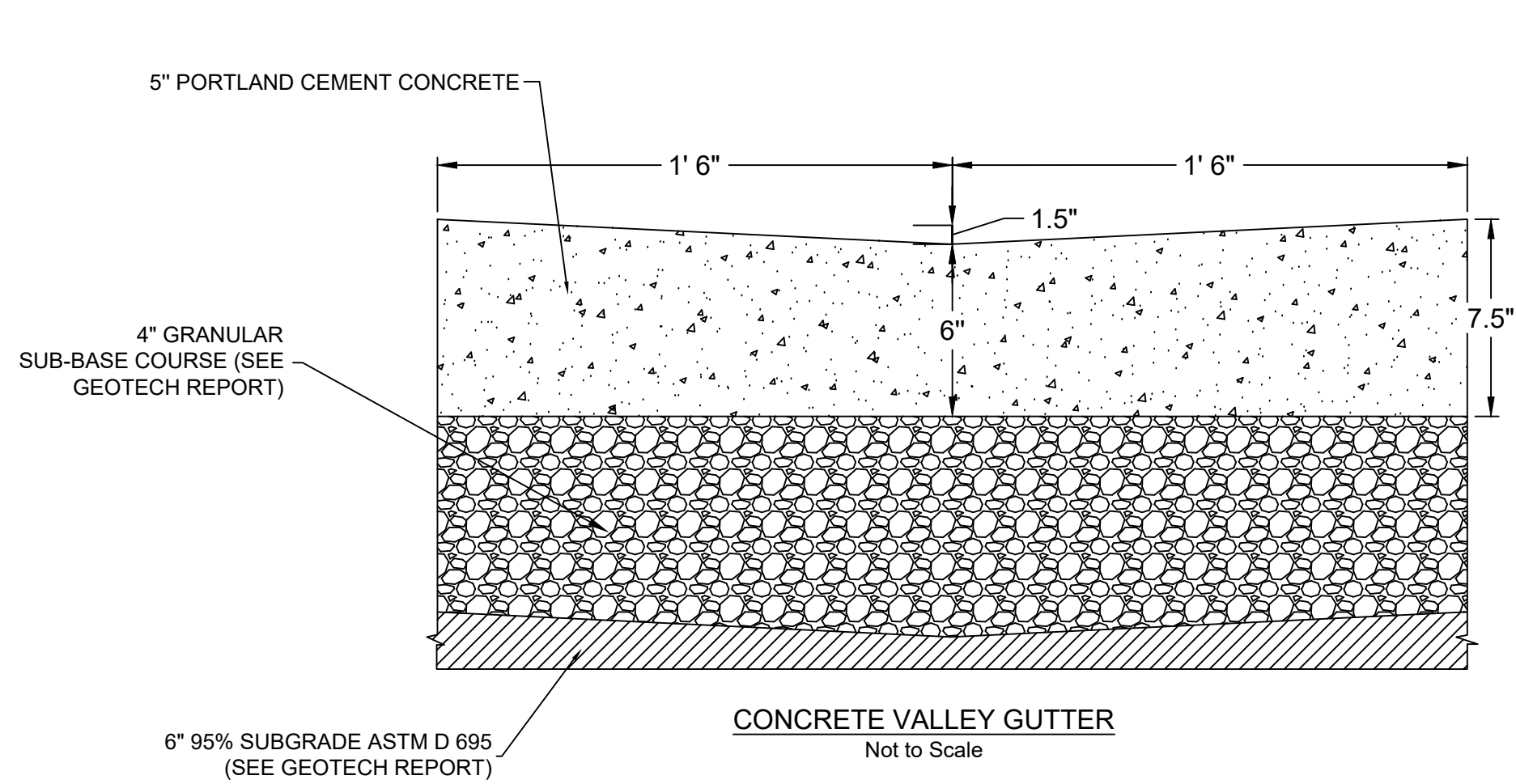
1. IRRIGATION SLEEVES SHALL BE INSTALLED AS A PAIR OF SLEEVES AT EACH LOCATION AND SHALL BE INSTALLED BENEATH PROPOSED ROADWAY AND PARKING AREAS PRIOR TO BEGINNING SURFACE CONSTRUCTION.
2. PIPE SLEEVE TO BE 4"Ø SCHEDULE 80 PVC FOR PIPING AND 2"Ø SCHEDULE 80 PVC FOR IRRIGATION CONTROL WIRING.
3. IMBED PIPE 4", ALL SIDES, WITH $\frac{3}{8}$ " CLEAN AGGREGATE FILL. ALLOW 48 HOURS TO SETTLE; BACKFILL & COMPACT WITH NATIVE SOIL.
4. MINIMUM TRENCH WIDTH TO BE 12".
5. CONTRACTOR SHALL INSTALL IRRIGATION SLEEVES IN ACCORDANCE WITH APPLICABLE MISSOURI PLUMBING CODES AND JOPLIN LOCAL UTILITY AND WATER MANAGEMENT DISTRICT REGULATIONS.
6. CONTRACTOR SHALL MARK ALL SLEEVE LOCATIONS AT EACH END TO AID FUTURE IRRIGATION INSTALLATION. CONTRACTOR SHALL BE RESPONSIBLE FOR DOCUMENTING AND MAINTAINING ALL SLEEVE LOCATIONS AND MARKERS DURING THE CONSTRUCTION PERIOD.
7. COATED CONDUCTIVE TAPE SHALL BE INSTALLED DIRECTLY ABOVE THE SLEEVE AND SHALL BE PRE-PRINTED WITH REPEATED WARNINGS: "CAUTION WATER LINE BURIED BELOW", OR AS OTHERWISE APPROVED BY THE PROJECT ENGINEER.
8. SLEEVES ARE ALWAYS INSTALLED AS A PAIR.



IRRIGATION SLEEVE DETAIL - NTS

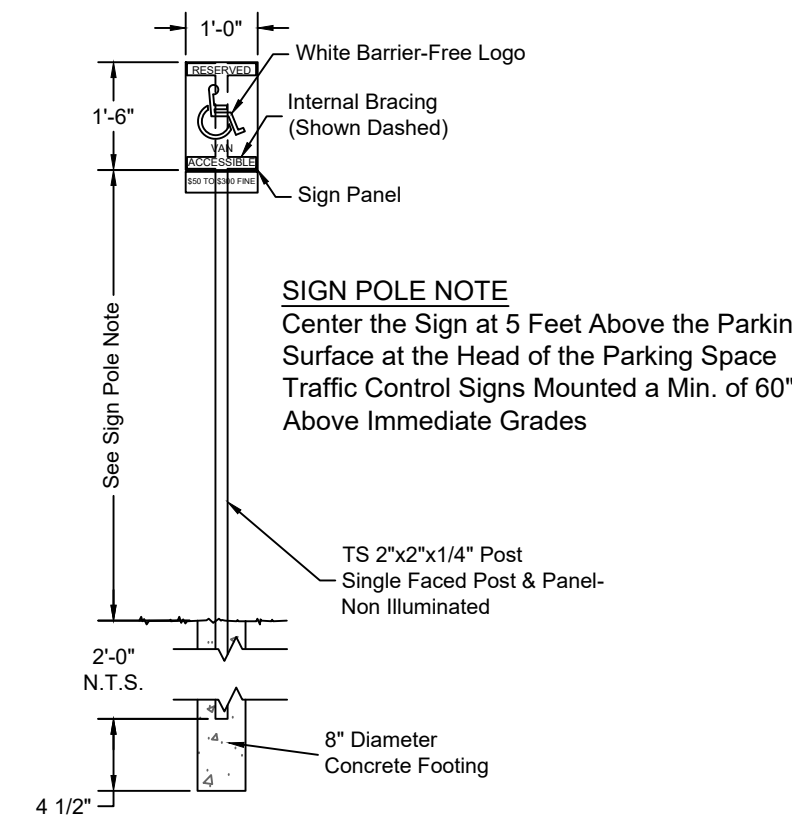


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		PNC



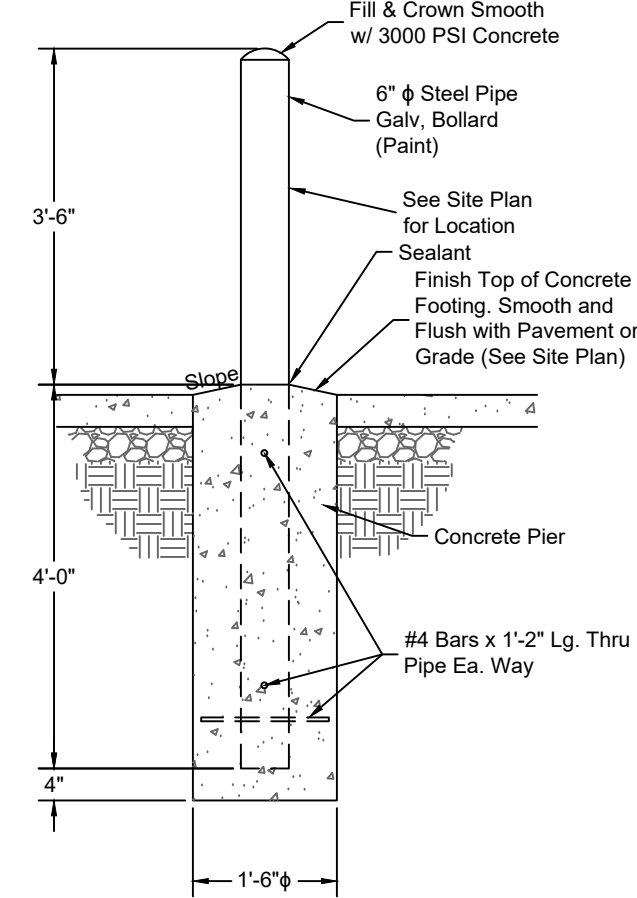
ACCESSIBLE PARKING DETAIL

Not to Scale



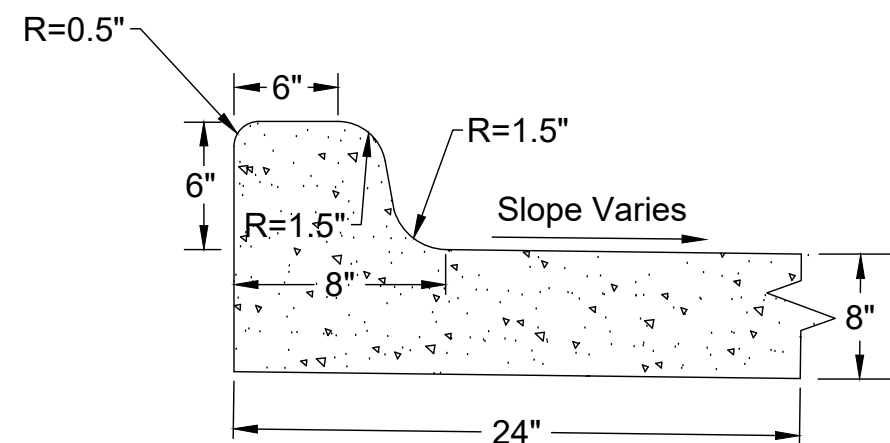
HANDICAP SIGNAGE

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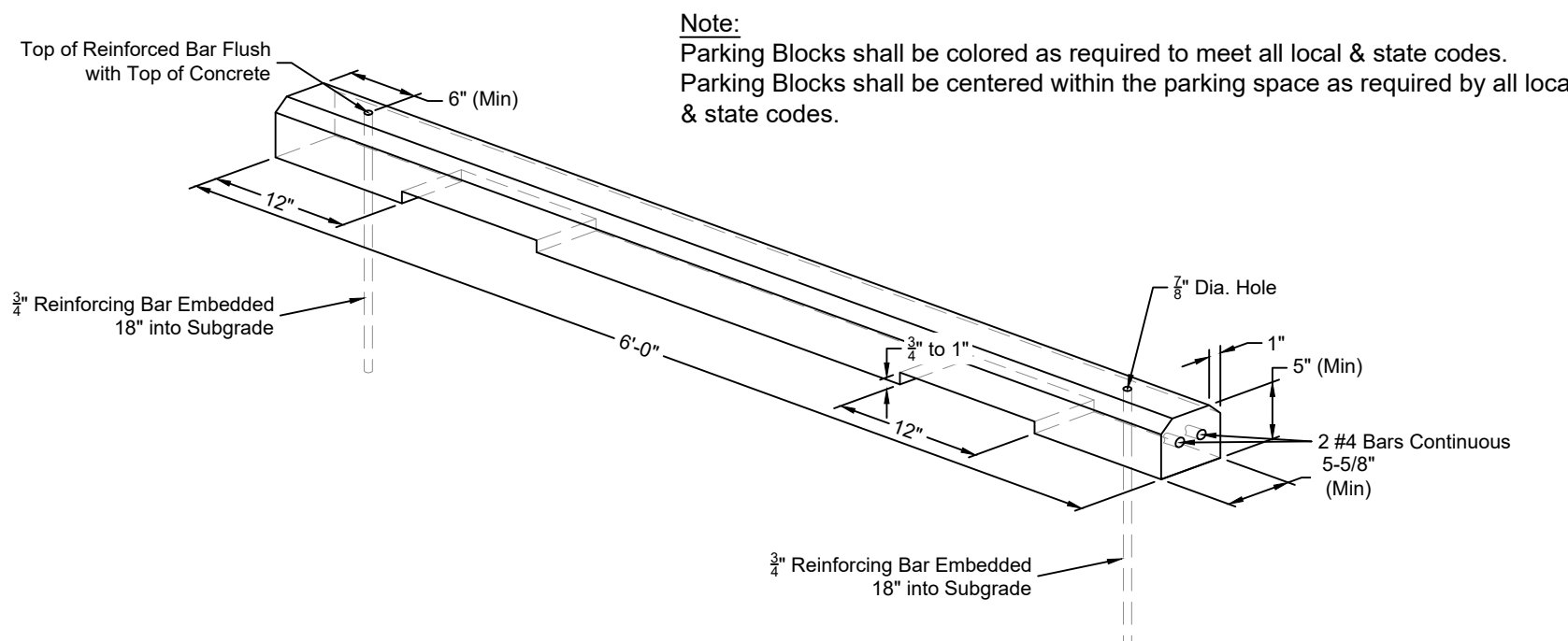
BOLLARD DETAIL

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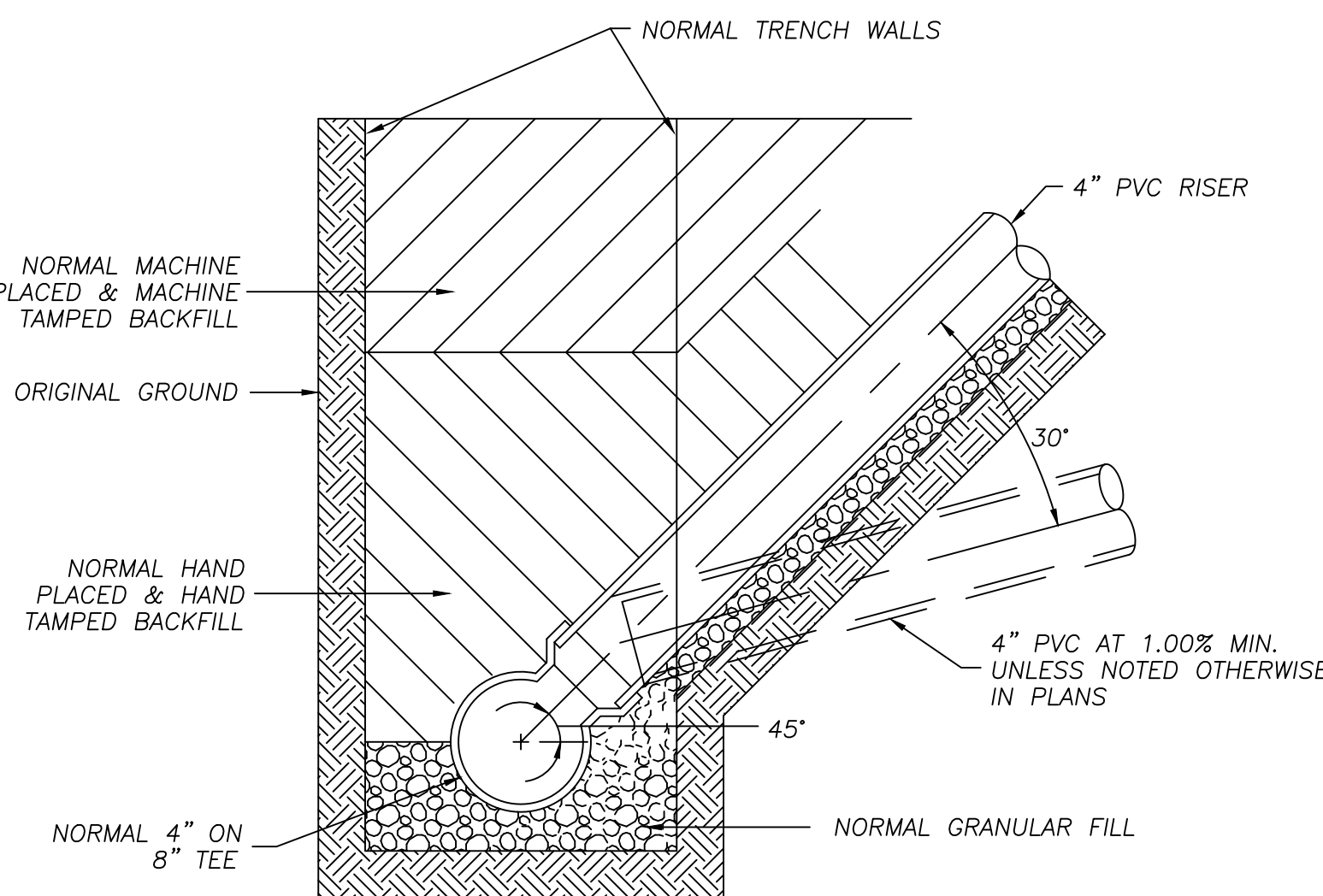
CURB & GUTTER DETAIL

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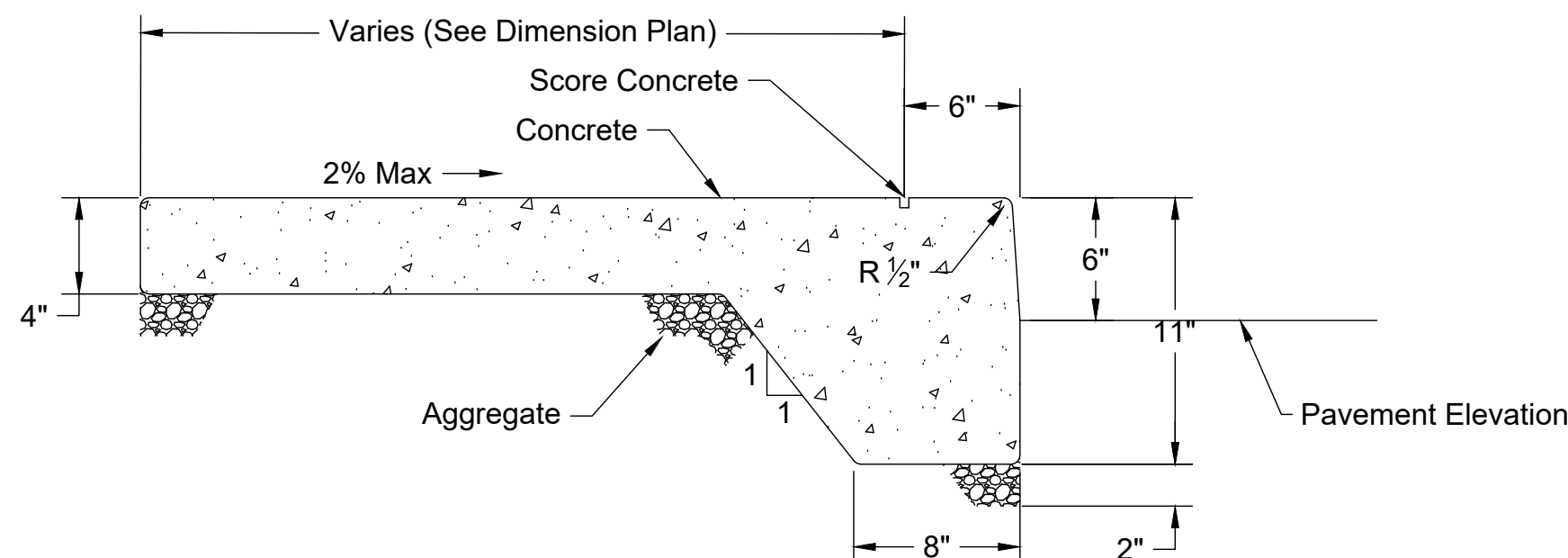
CONCRETE PARKING BLOCK DETAIL

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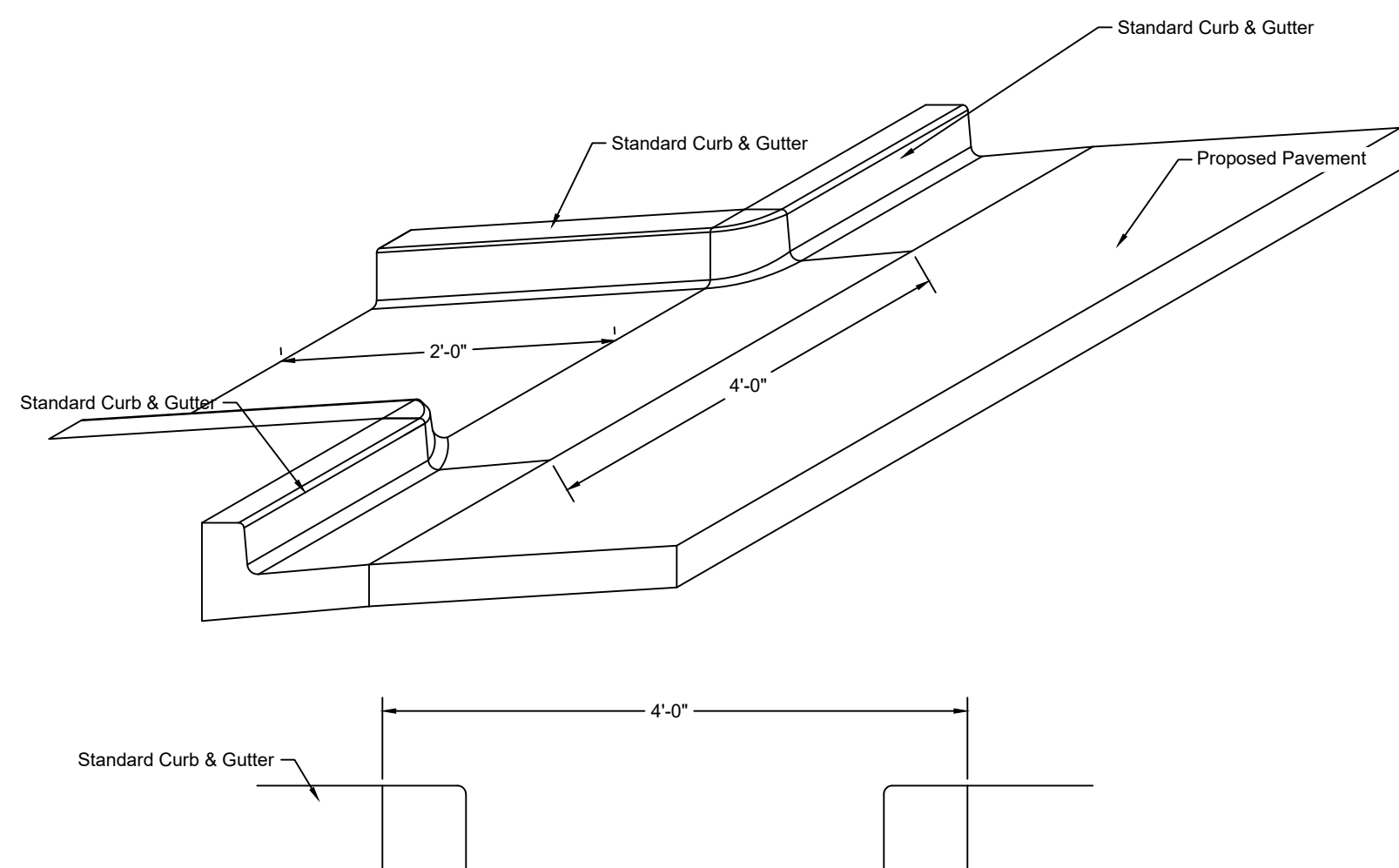
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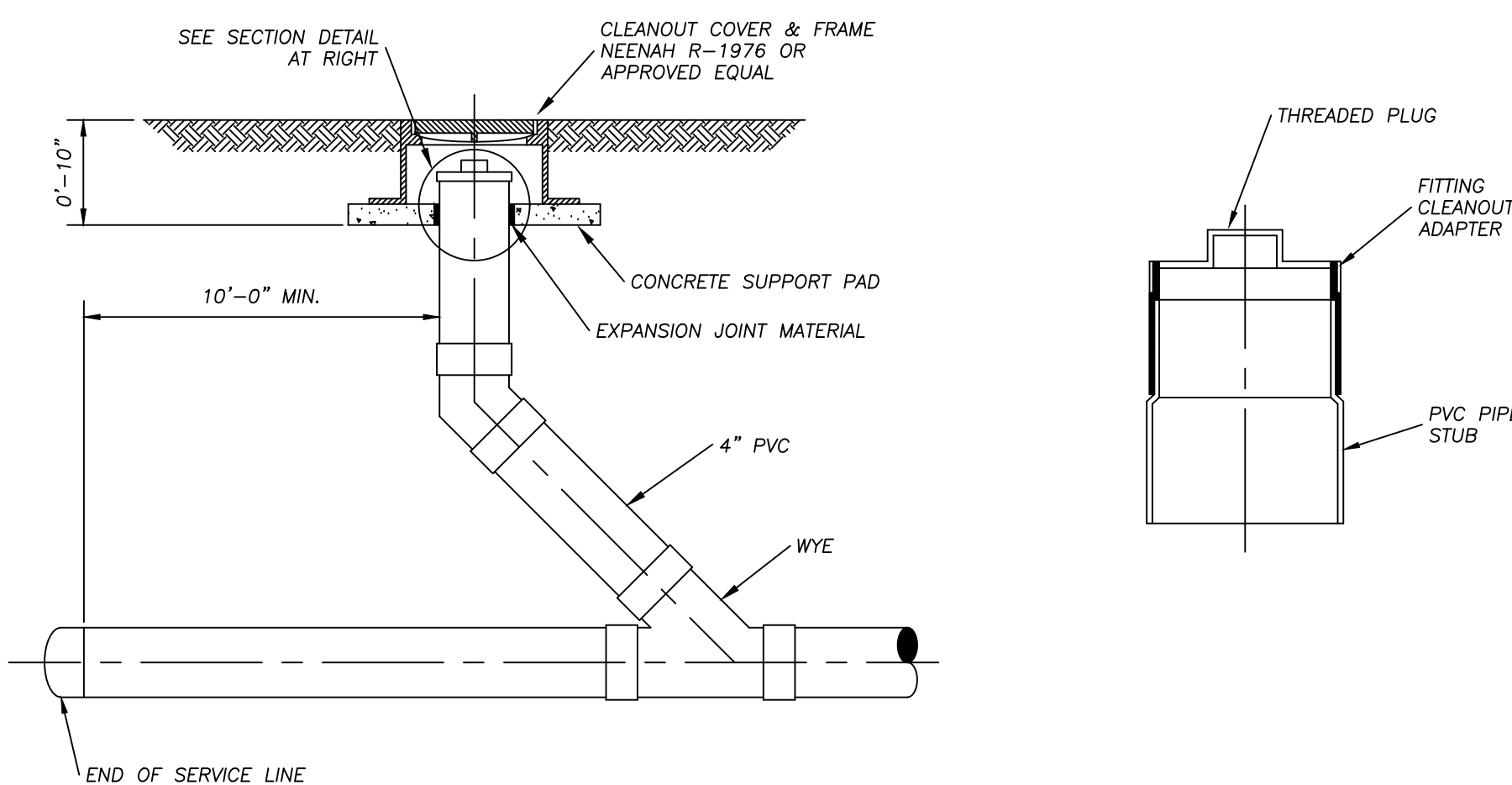
INTEGRAL SIDEWALK - CURB DETAIL

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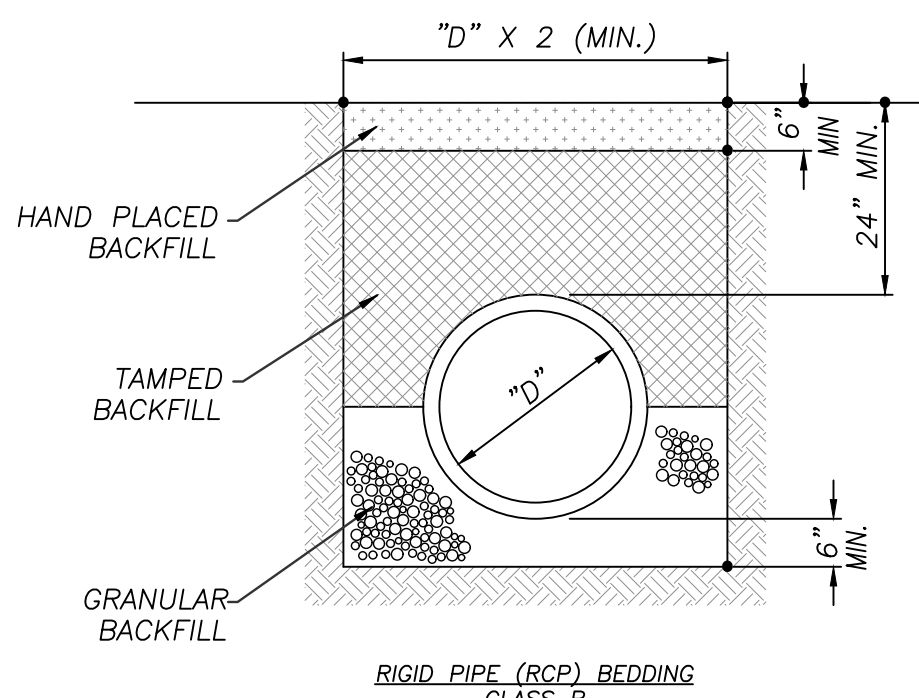
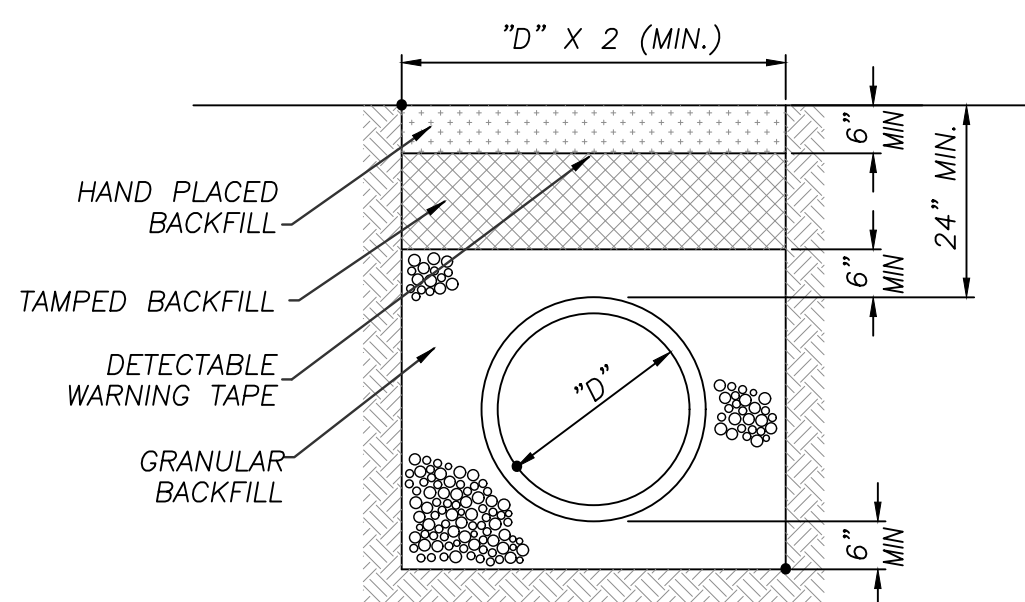
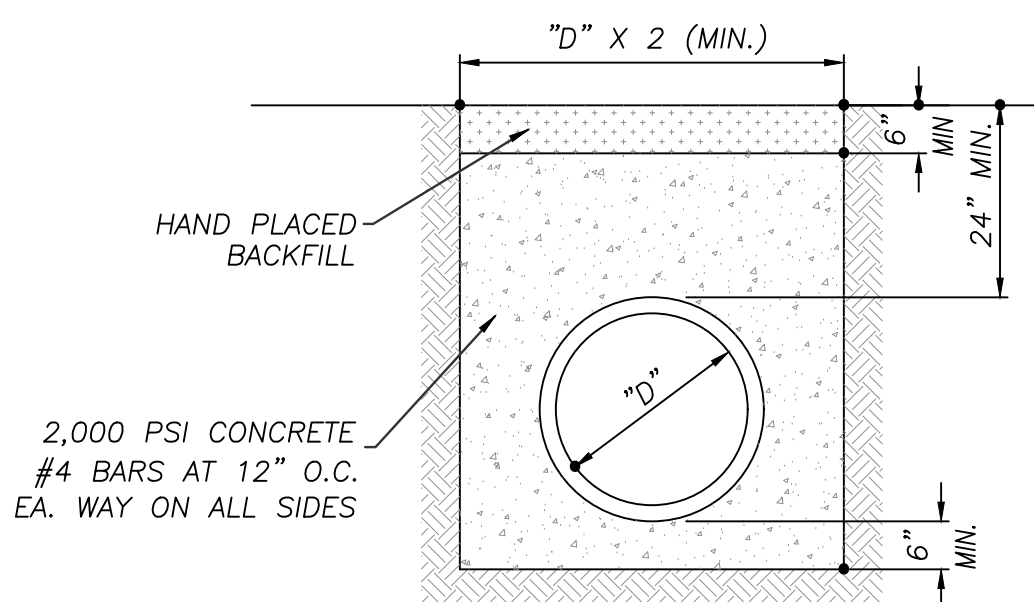
FLUME DETAIL

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CLEANOUT

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NOTES:

1. GRANULAR FILL SHALL BE 1/2" CLEAN ROCK OR SAND/GRAVEL BEDDING MEETING MNDOT SELECT GRANULAR BACKFILL REQUIREMENTS (MNDOT 2020 STANDARD SPECIFICATIONS-SECTION 3149), PLACED IN 6" LIFTS AND COMPACTED BY SLICING WITH A SHOVEL.
2. TAMPED FILL SHALL BE FINELY DIVIDED, JOB EXCAVATED MATERIAL FREE OF DEBRIS, ORGANIC MATERIAL, AND STONES, COMPACTED TO 95% OF STANDARD DENSITY, WITH A MAXIMUM OF 5 PERCENTAGE POINTS ABOVE OPTIMUM, AND A MAXIMUM OF 5 PERCENTAGE POINTS BELOW OPTIMUM.
3. HAND PLACED FILL SHALL BE FINELY DIVIDED MATERIAL, FREE OF DEBRIS AND STONES, COMPACTED TO 95% OF STANDARD DENSITY, WITH A MAXIMUM OF 5 PERCENTAGE POINTS ABOVE OPTIMUM, AND A MAXIMUM OF 5 PERCENTAGE POINTS BELOW OPTIMUM. ALL PIPE SHALL BE INSPECTED PRIOR TO BACKFILL.
4. ALL PIPE COVERED PRIOR TO INSPECTION SHALL BE UNCOVERED AT THE CONTRACTORS EXPENSE.

Pipe Bedding

Not to Scale