

GENERAL CONSTRUCTION NOTES

OVERALL:
APPROPRIATE UTILITY COMPANIES SHALL BE NOTIFIED AT LEAST 48 HOURS PRIOR TO BREAKING GROUND FOR THE PURPOSE OF VERIFYING BY FIELD INSPECTION, THE EXACT LOCATION OF UNDERGROUND UTILITIES.

THE CONTRACTOR SHALL EXERCISE DUE CARE DURING CONSTRUCTION SO AS NOT TO DESTROY ANY TREES, PLANTS, SHRUBS OR STRUCTURES OUTSIDE OF THE INDICATED WORK LIMITS AND THOSE NOT SPECIFICALLY MARKED FOR REMOVAL OR RELOCATION WITHIN THE WORK LIMITS.

ALL MATERIALS AND CONSTRUCTION PROCEDURES SHALL BE IN ACCORDANCE WITH "CONSTRUCTION AND MATERIAL SPECIFICATIONS OF THE STATE OF INDIANA DEPARTMENT OF TRANSPORTATION", CITY OF LAWRENCEBURG, DEARBORN COUNTY, INDIANA.

UNLESS OTHERWISE NOTED ALL CONSTRUCTION DETAILS SHALL CONFORM WITH THE "STANDARD CONSTRUCTION DRAWINGS OF THE STATE OF INDIANA DEPARTMENT OF TRANSPORTATION", CITY OF LAWRENCEBURG, OR DEARBORN COUNTY, INDIANA.

THE ENGINEER/SURVEYOR DOES NOT ASSUME ANY LIABILITY FOR THE LOCATION OF UTILITIES, INCLUDING INDIVIDUAL SERVICE LINES & PRIVATE MAINS NOT SHOWN ON PUBLIC RECORDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EXACTLY LOCATING AND PROTECTING ALL UTILITIES, BOTH ABOVE AND BELOW GROUND, THAT EXIST IN THE WORK AREA AND WHICH MAY COME IN CONFLICT WITH HIS OPERATIONS. ANY DAMAGE TO UTILITIES WHICH HAVE BEEN ACCURATELY LOCATED, WHICH IS CAUSED BY THE CONTRACTOR'S OPERATIONS, SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. ASSISTANCE IN LOCATING UNDERGROUND UTILITIES CAN BE OBTAINED BY CONTACTING THE UTILITY COMPANIES AT THE LOCATIONS LISTED ON THIS PAGE. IF A DISCREPANCY IS FOUND TO EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.

EACH INSTALLING CONTRACTOR IS RESPONSIBLE FOR THEIR OWN COORDINATION OF INSTALLATION OF THEIR SYSTEMS UNDER THE SUPERVISION OF THE GENERAL CONTRACTOR/CONSTRUCTION MANAGER, OR APPROPRIATE PARTY. ABERCROMBIE & ASSOCIATES, INC. ASSUMES NO RESPONSIBILITY FOR CONTRACTOR MEANS & METHODS OF CONSTRUCTION ON DRAWINGS.

THE CONTRACTOR SHALL OBTAIN OR VERIFY THAT ALL PERMITS ARE OBTAINED.

THE CONTRACTOR SHALL VERIFY EXISTING SITE INFORMATION AND REQUIRED EARTHWORK.

A GEOTECHNICAL INSPECTION IS RECOMMENDED AND ALL RECOMMENDATIONS IN THE GEOTECHNICAL REPORT SHALL BE FOLLOWED.

ALL PROPOSED SPOT ELEVATIONS ARE TO FINISHED GRADE.

TYPICAL PARKING SPACES ARE 9' WIDE AND 19' LONG, UNLESS OTHERWISE NOTED.

PAVEMENT MARKINGS TO BE HIGH SOLIDS, WATER BASED ACRYLIC PAINT CONTAINING ULTRAVIOLET RESISTANT PIGMENTS, LEAD & CHROMATE FREE, READY MIXED, COMPLYING WITH ITS 17-1954 WITH A DRYING TIME OF LESS THAN 45 MINUTES. PARKING & LAKE PARKERS STRIPING TO BE WHITE, HANDICAP SPACES TO BE BLUE, PEDESTRIAN CROSSING LANES & NO PARKING ZONES TO BE YELLOW. APPLY PAINT WITH MECHANICAL EQUIPMENT, AT MANUFACTURER'S RECOMMENDATIONS & AT A MINIMUM WET FILM THICKNESS OF 15 MILS.

UTILITY SPECIFICATION:

ALL STORM SEWER TO BE PRIVATE, MAINTAINED BY THE OWNER AND BE CORRUGATED POLYETHYLENE SMOOTH LINED PIPE, CONFORMING TO INDOT SPEC. 907.16(B), INSTALLED PER INDOT SECTION 715, WITH GASKETED WATERTIGHT JOINTS CONFORMING TO ASTM D3212 AND GASKETS CONFORMING TO ASTM F477.

STEPS SHALL BE REQUIRED IN ALL CATCH BASINS & MANHOLES WHERE THE DEPTH EXCEEDS FOUR (4) FEET AND SHALL MEET THE REQUIREMENTS OF THE INDOT STANDARD CONSTRUCTION DRAWING E 720-MHST-09.

ALL CATCH BASINS, INLETS & MANHOLES IN PAVED AREAS SHALL BE SLOPED ACCORDINGLY WITH FINAL PAVEMENT SURFACE PER GRADING PLAN.

ALL DOWNSPOUTS ARE TO BE CONNECTED TO THE STORM SEWER.

DOMESTIC AND IRRIGATION WATER SERVICE TO BE TYPE "K" COPPER, UNLESS OTHERWISE NOTED. FIRE LINE TO BE DUCTILE IRON CLASS 53 OR PVC AWWA C900, UNLESS OTHERWISE NOTED. FIRE HYDRANTS TO BE "MUELLER" OR "KENNEDY" OR APPROVED EQUAL.

PROPERLY SIZED THRUST BLOCKS SHALL BE PROVIDED FOR FIRE LINE AT EVERY CHANGE IN DIRECTION SUCH THAT IS PROVIDES ADEQUATE RESISTANCE TO MAINTAIN THE INTEGRITY OF THE JOINTS. SEE DETAILS ON PLANS FOR BLOCKING DETAILS.

ALL SANITARY SEWER PIPE SHALL BE P.V.C., SDR 35, ASTM D-3034.

UTILITY TRENCH BACKFILL SHALL BE PER THE DETAILS SHOWN ON THE PLANS.

EROSION CONTROL:

ALL EROSION CONTROL MEASURES MUST BE IN PLACE PRIOR TO ANY STRIPPING OF VEGETATION OR EXCAVATION.

EROSION CONTROL WILL BE ACCOMPLISHED BY STRATEGICALLY PLACING ROCK CHECK DAMS, MULCH, BERMS AND/OR SILT FENCES IN SWALES AND RUNOFF AREAS, SUCH ITEMS TO BE REPLACED AND EXPANDED AS NECESSARY TO AFFORD NECESSARY CONTROL.

SILT FENCES USED FOR EROSION AND SEDIMENT CONTROL ARE TO BE ENTRENCHED AT LEAST 6" INCHES BELOW GRADE, AND FOLDED ACCORDING TO THE DETAIL AS SHOWN.

ALL EROSION CONTROLS SHALL BE INSPECTED AT LEAST ONCE EVERY 7 CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT PRODUCING GREATER THAN 1/2 INCH OF RAIN IN A 24 HOUR PERIOD. ALL EROSION CONTROLS MUST BE MAINTAINED DURING CONSTRUCTION BY REMOVING COMPACTED SILT AND SEDIMENT, AND REDISTRIBUTING IT AS IS APPROPRIATE. SEEDING AND MULCHING SHALL BE APPLIED IN ACCORDANCE WITH OHIO RAINWATER AND LAND DEVELOPMENT MANUAL TO ALL DISTURBED AREAS WITHIN 7 DAYS IF THE AREA IS AT FINAL GRADE OR IS TO REMAIN DORMANT FOR MORE THAN 14 DAYS.

ALL CATCH BASINS SHALL HAVE SEDIMENT INLET PROTECTION METHODS INSTALLED DURING CONSTRUCTION, USING THE DETAILS SHOWN ON THE PLAN.

THE BOTTOM OF THE DETENTION BASIN SHALL BE BROUGHT BACK TO ORIGINAL GRADE AFTER CONSTRUCTION BY REMOVING ALL DEPOSITED SEDIMENT BEFORE THE BASIN IN SEEDED AND MULCHED.

DETENTION BASIN AND FILL AREAS GRASS SEED MIXTURE:

- 1/2 # RED FESCUE PER 1,000 SQUARE FEET
- 1/4 # BLUEGRASS PER 1,000 SQUARE FEET
- 1/4 # DOMESTIC RYEGRASS PER 1,000 SQUARE FEET
- 2# PERENNIAL RYE PER 1,000 PER SQUARE FEET
- FERTILIZE WITH 12# OF 10-10-10 PER 1,000 SQUARE FEET
- MULCH WITH 3 BALES OF STRAW PER 1,000 SQUARE FEET

AN ASPHALT MULCH TIE DOWN AT THE RATE OF 5 GALLONS PER 1,000 SQUARE FEET SHALL BE USED.

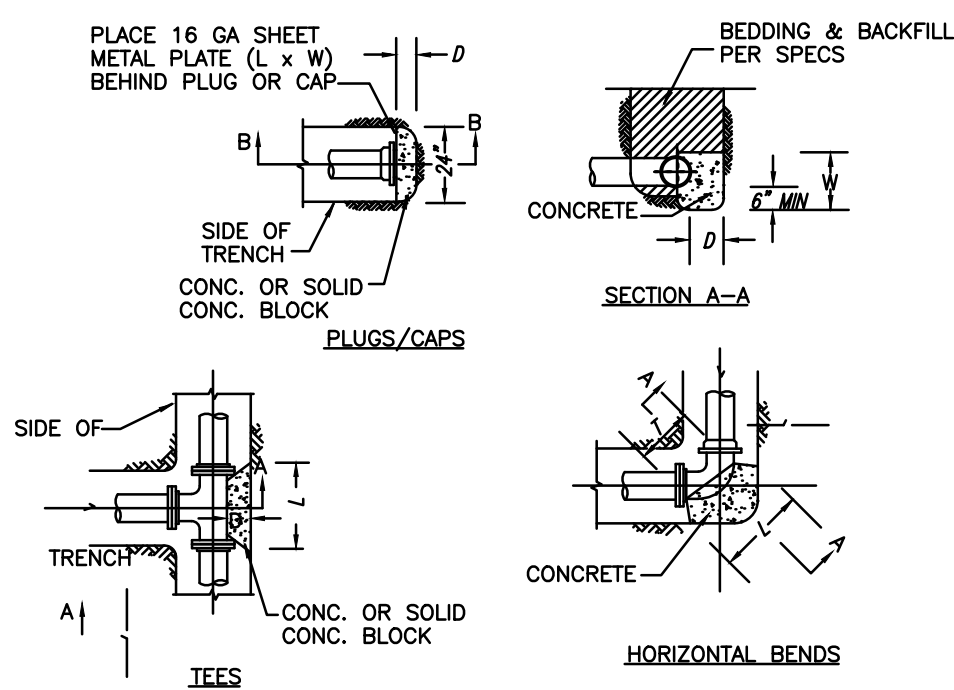
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TANNERS CREEK MANOR

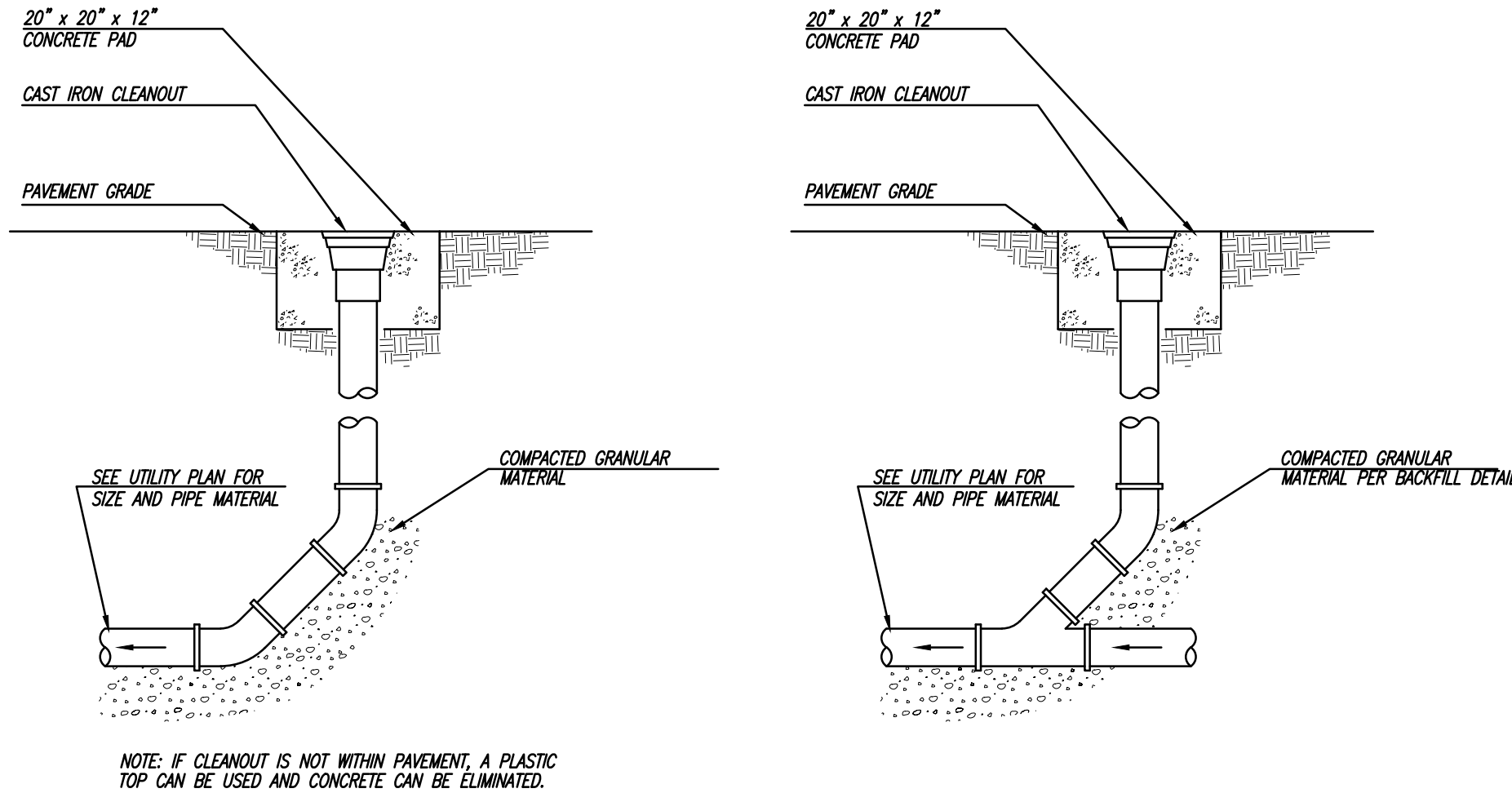
58 DOUGHTY ROAD

CITY OF LAWRENCEBURG

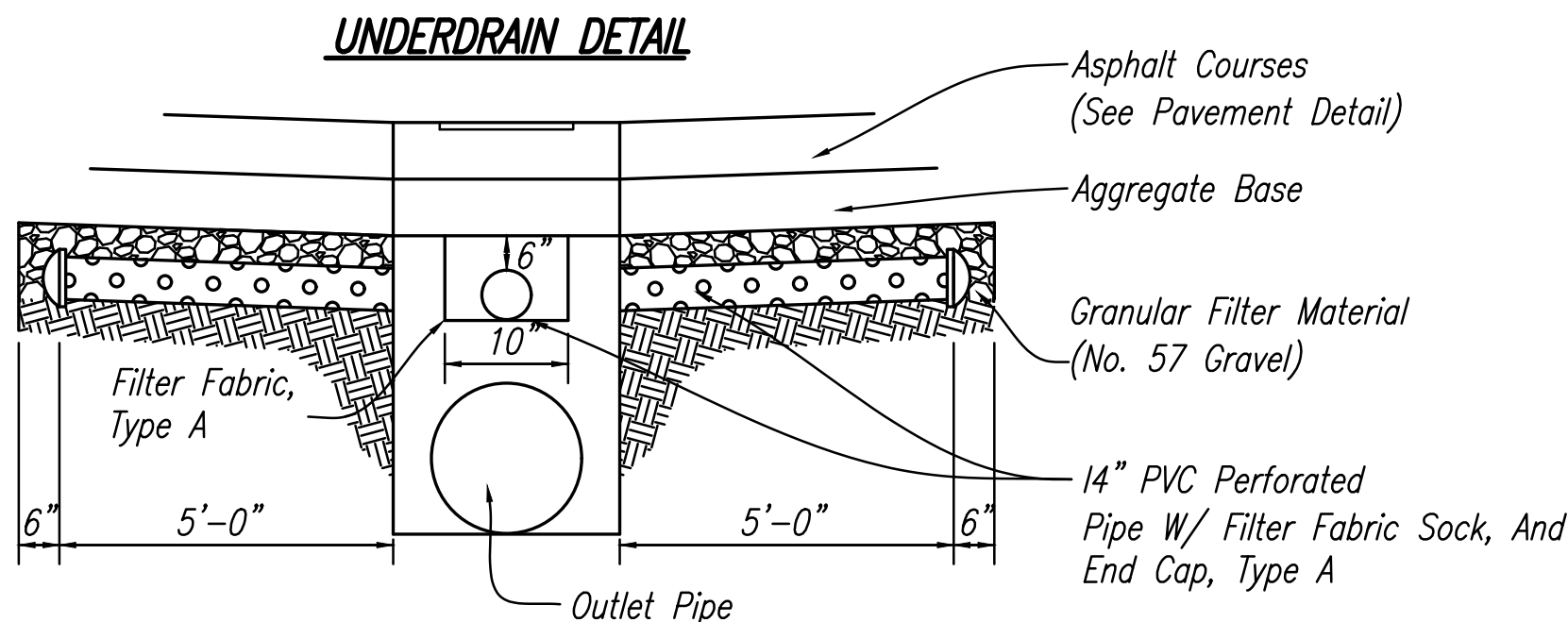
DEARBORN COUNTY, INDIANA



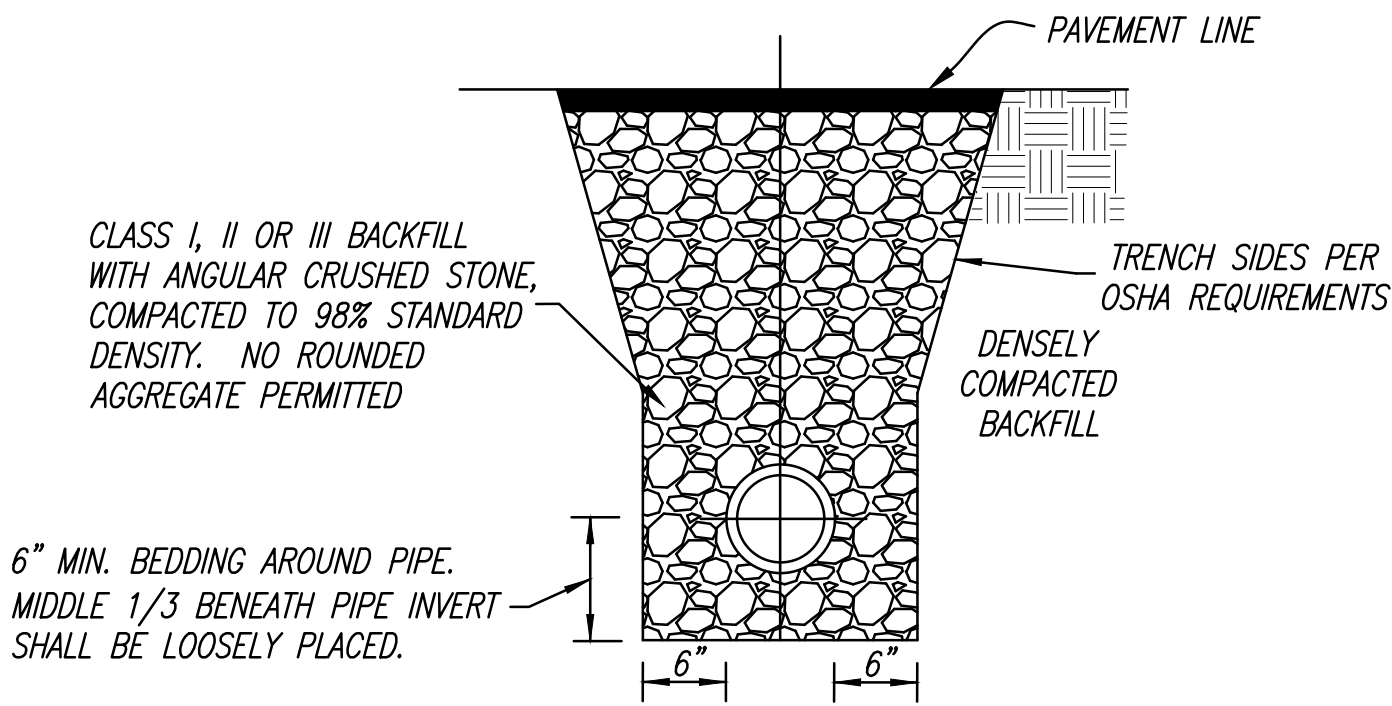
CONCRETE THRUST BLOCK



TYPICAL CLEANOUT DETAIL

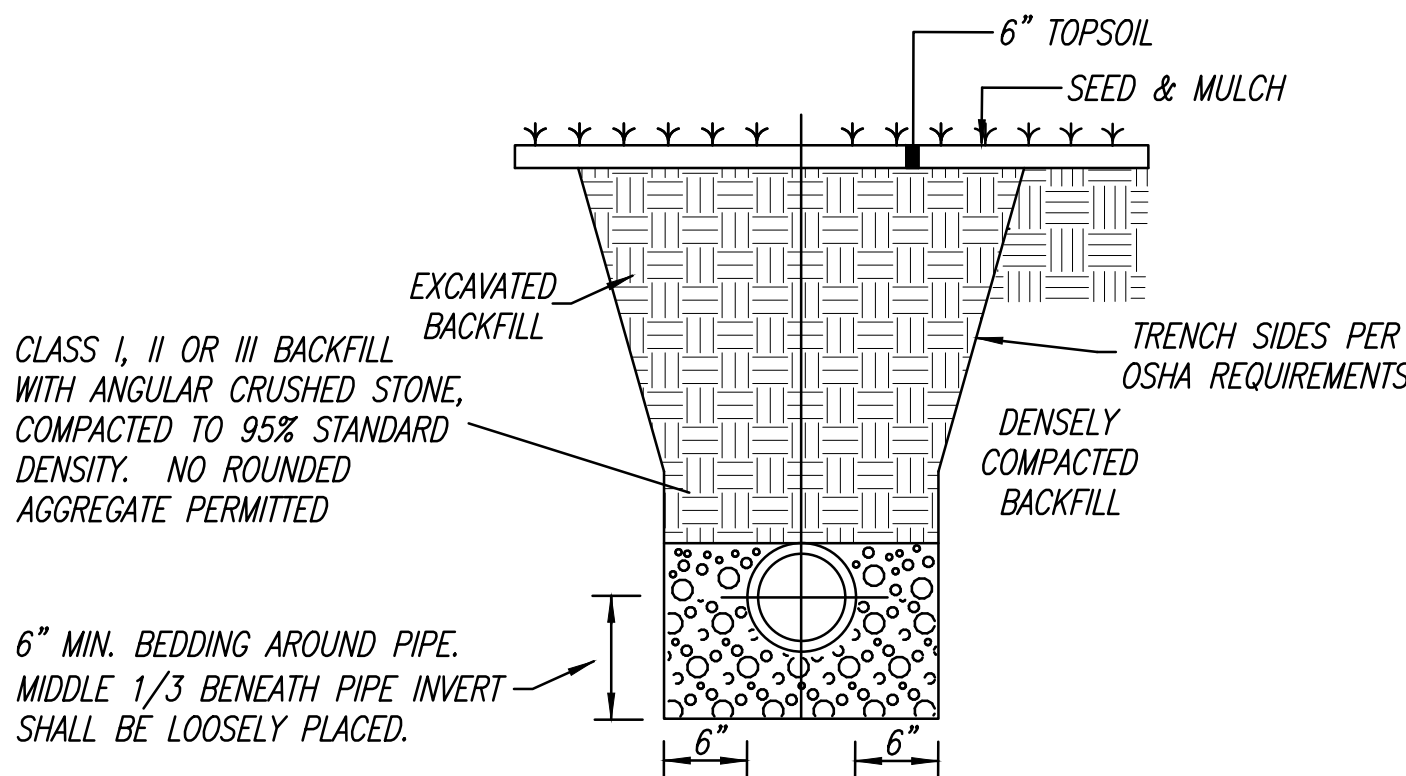


STANDARD UTILITY TRENCH FOR PIPES UNDER PAVEMENT

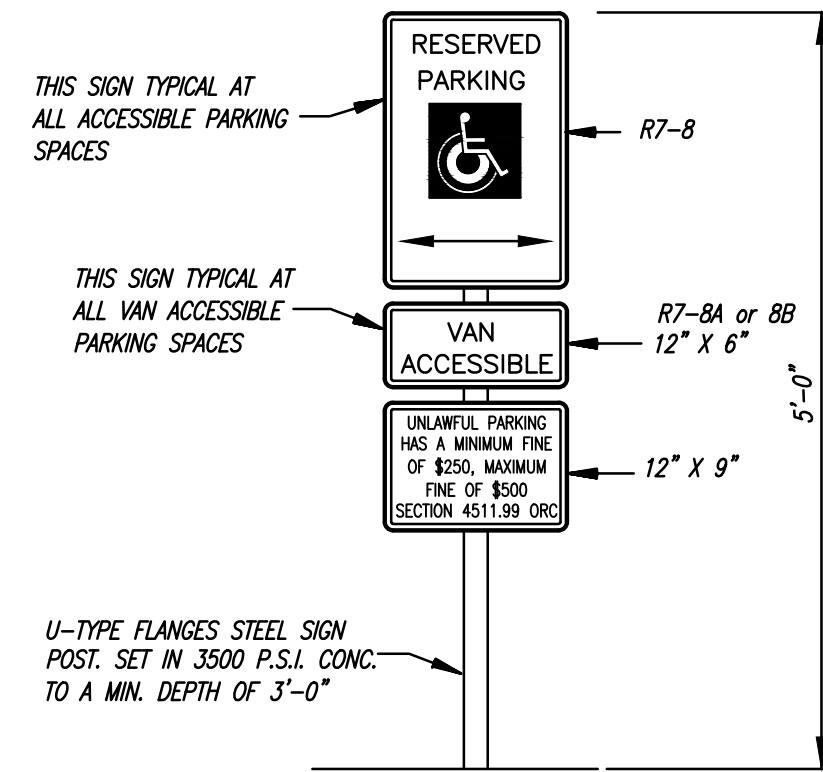


REFER TO O.D.O.T ITEM 603.04 FOR ADDITIONAL BEDDING INFORMATION
REFER TO O.D.O.T ITEM 603.08 FOR ADDITIONAL BACKFILLING INFORMATION

STANDARD UTILITY TRENCH FOR PIPES NOT UNDER PAVEMENT

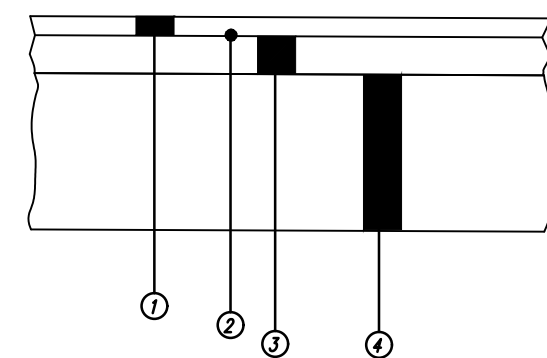


HANDICAP ACCESSIBLE PARKING SIGN



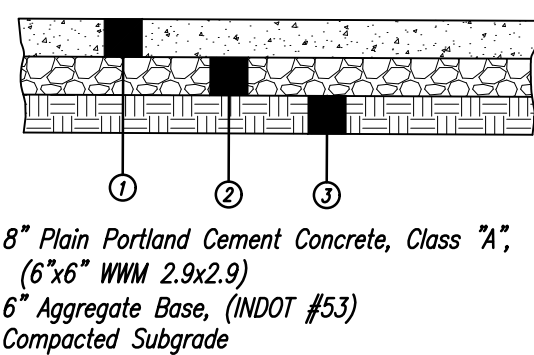
NOTE: SIGNS SHALL COMPLY WITH U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION'S "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES". MOUNT SIGNS TO POST IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

HEAVY DUTY ASPHALT PAVEMENT DETAIL



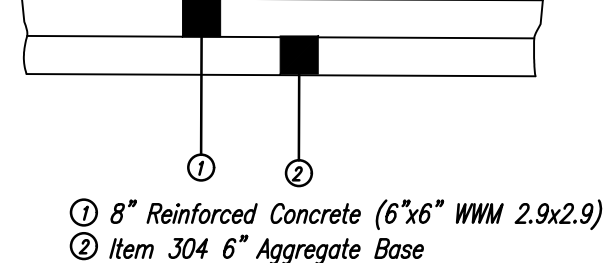
- 1 1 1/2" Asphalt Concrete Surface Course, Type 1 (PG 64-22)
- Tack Coat
- 3" Asphalt Concrete Intermediate Course (1 1/2" Courses) Type 2 (PG 64-22)
- 8" Aggregate Base (INDOT #53) (4" Courses)

CONCRETE PAVEMENT DETAIL



- 8" Plain Portland Cement Concrete, Class "A", (6"x6" WMM 2.9x2.9)
- 6" Aggregate Base, (INDOT #53)
- Compacted Subgrade

DUMPSTER PAD PAVEMENT DETAIL

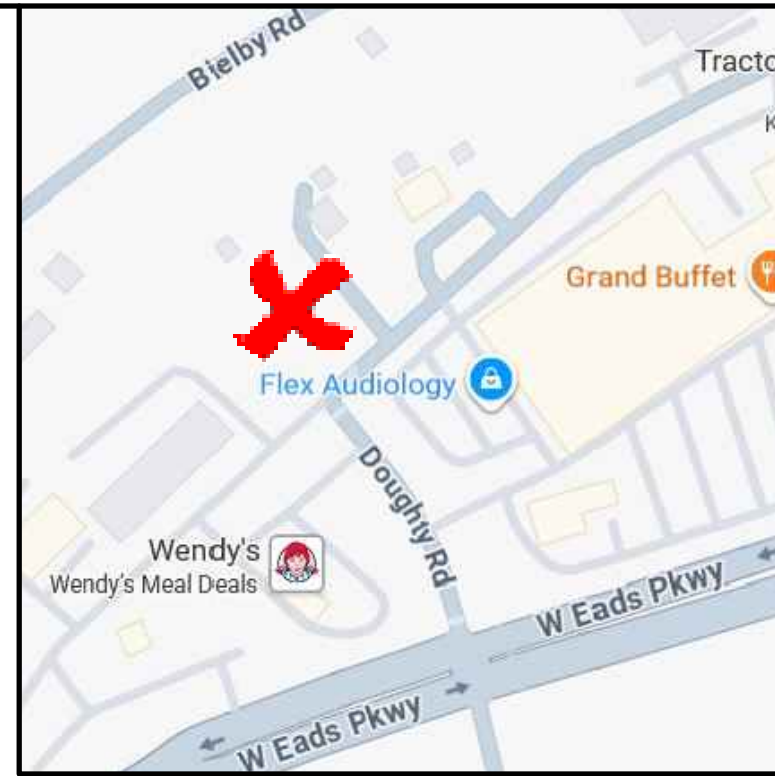


ENGINEER:

ABERCROMBIE & ASSOCIATES, INC.
8111 CHEVIOT ROAD
COLUMBUS, OH 43217
ATTN: DAVID LOREI
PHONE: (513) 385-5757

DEVELOPER/OWNER:

TANNERS CREEK MANOR, L.P.
330 W. SPRING STREET, SUITE 430
COLUMBUS, OH 43215
ATTN: SCOTT HARROLD
PHONE: (614) 350-0391



VICINITY MAP

Date	5-11-26	Drawn By	B.P.	Checked By	D.L.	Scale	NONE
REVISIONS	6-22-26, 800 SET						
							DWG: 26-0001 DSGM/DL-DSGN

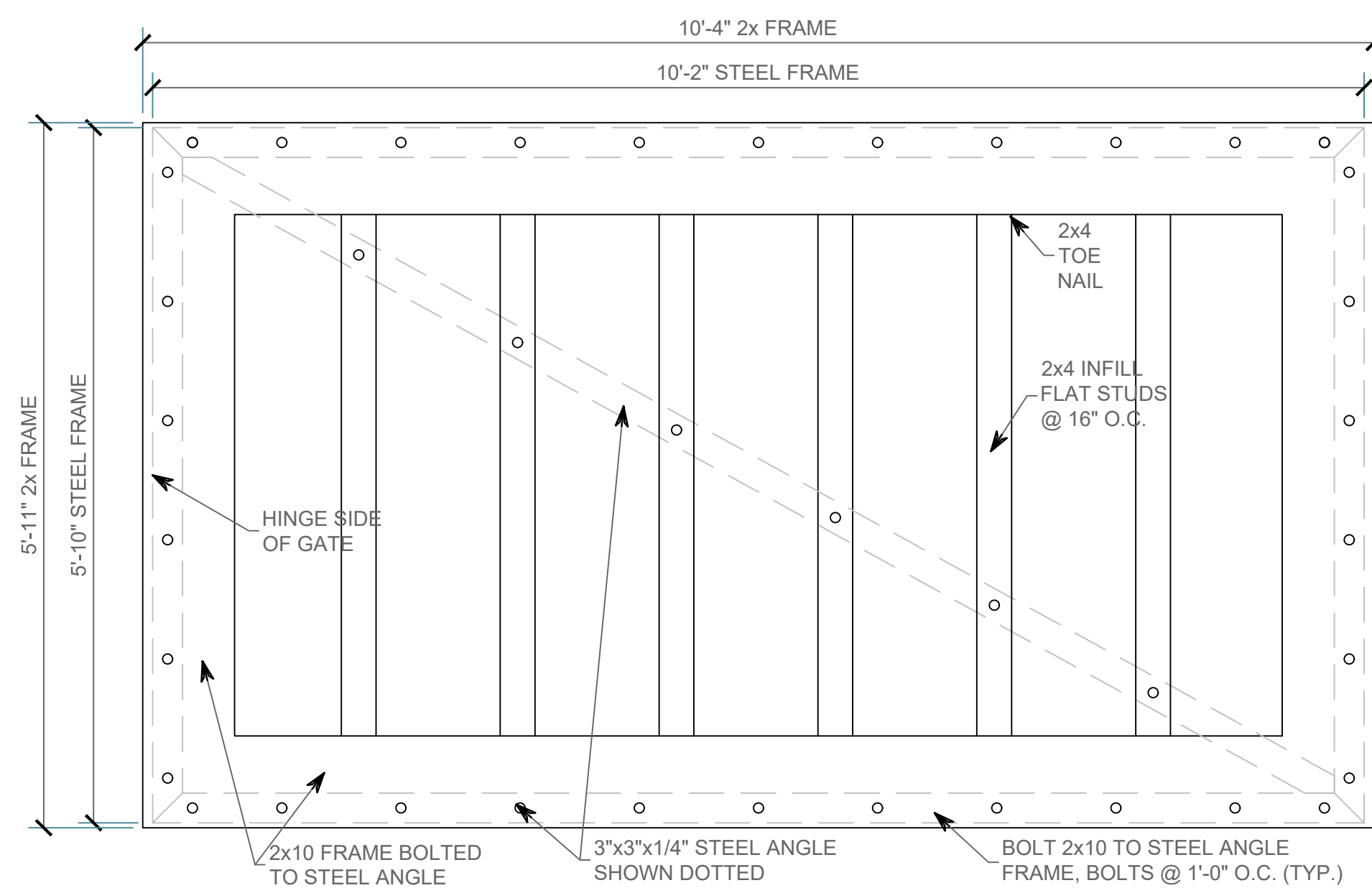
TITLE SHEET

58 DOUGHTY ROAD
SECTION-15, TOWN-5-NORTH, RANGE-1-WEST
CITY OF LAWRENCEBURG
DEARBORN COUNTY, INDIANA

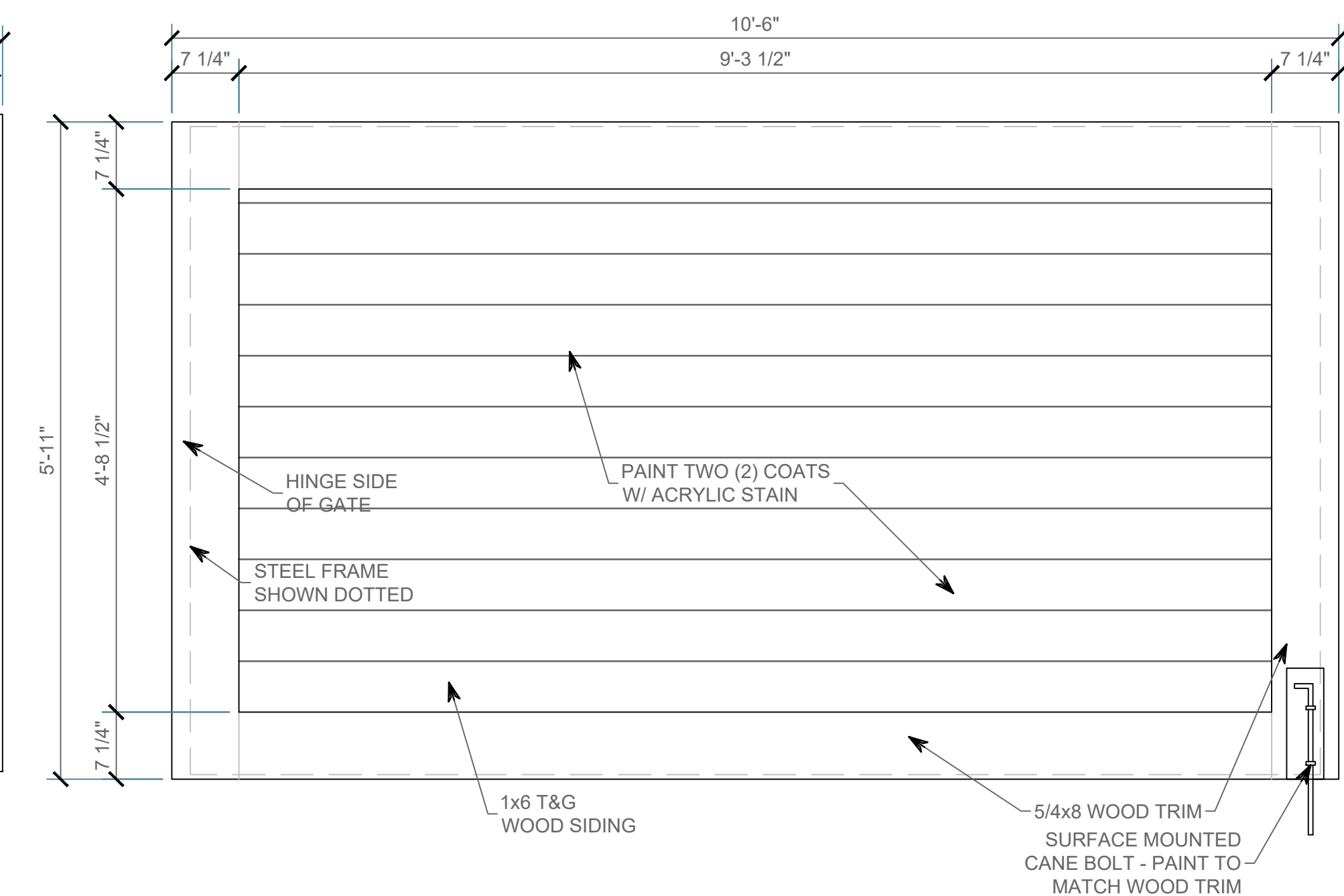
Abercrombie & Associates, Inc.
Civil Engineering + Surveying
8111 Cheviot Road, Suite 200
Cincinnati, Ohio 45247
www.abercrombie-associates.com

Job No. 26-0001
Page C 100

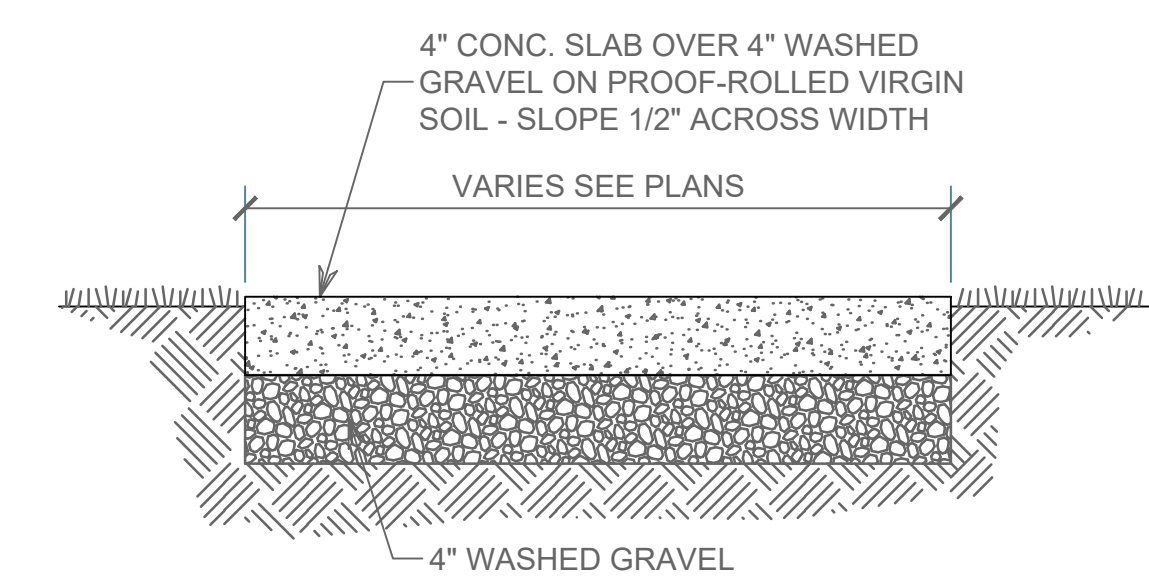




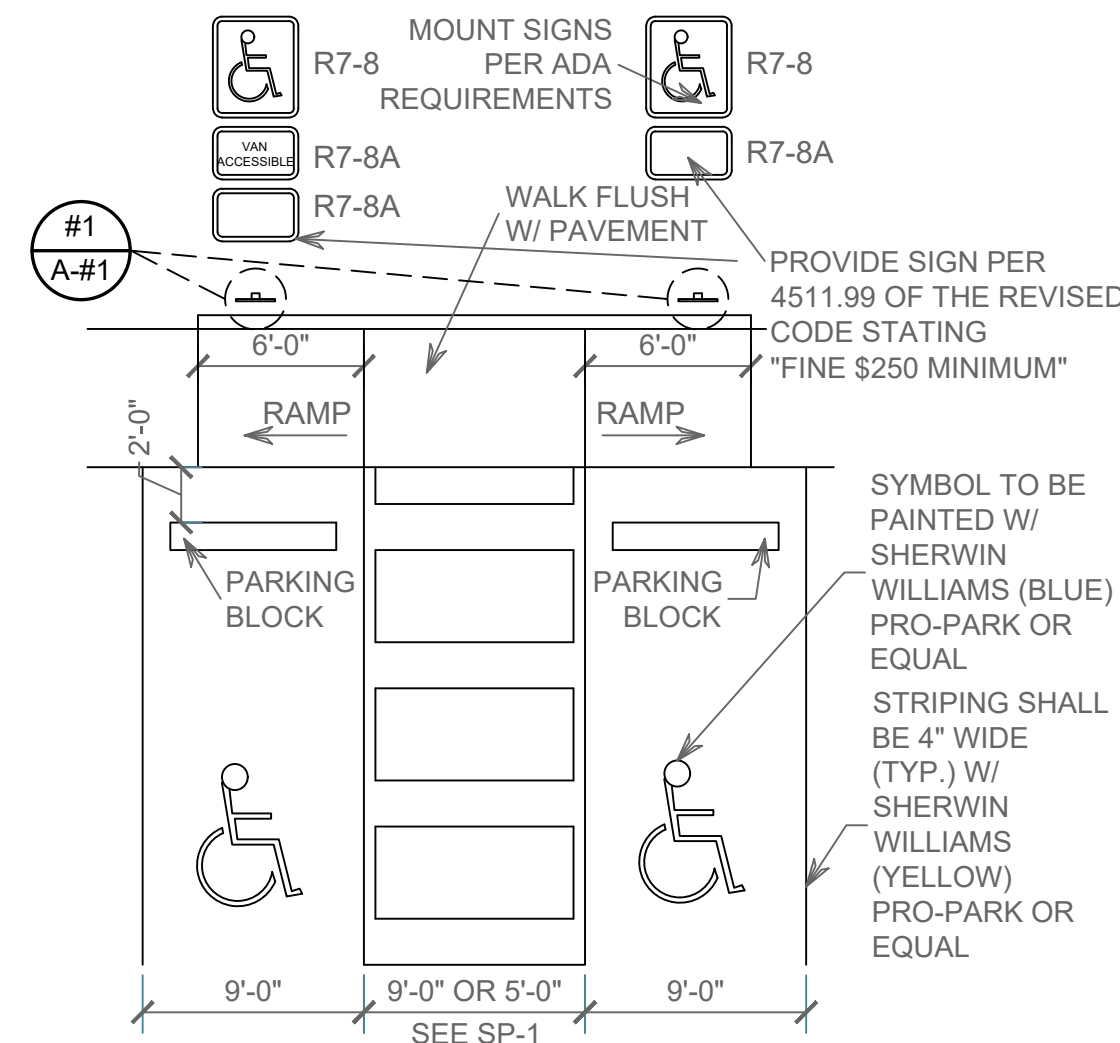
GATE FRAME ELEVATION



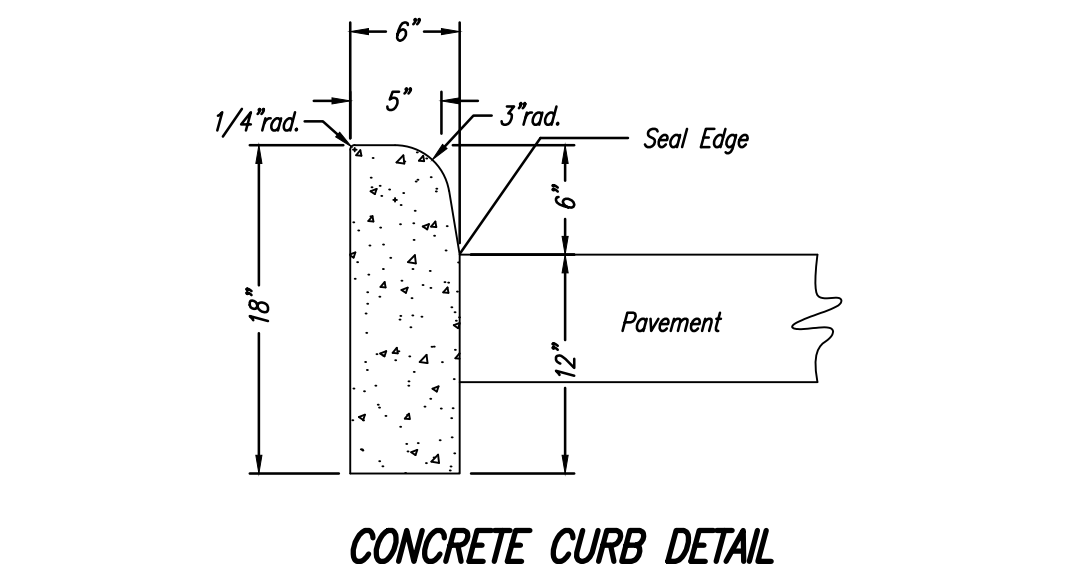
ENLARGED ELEVATION



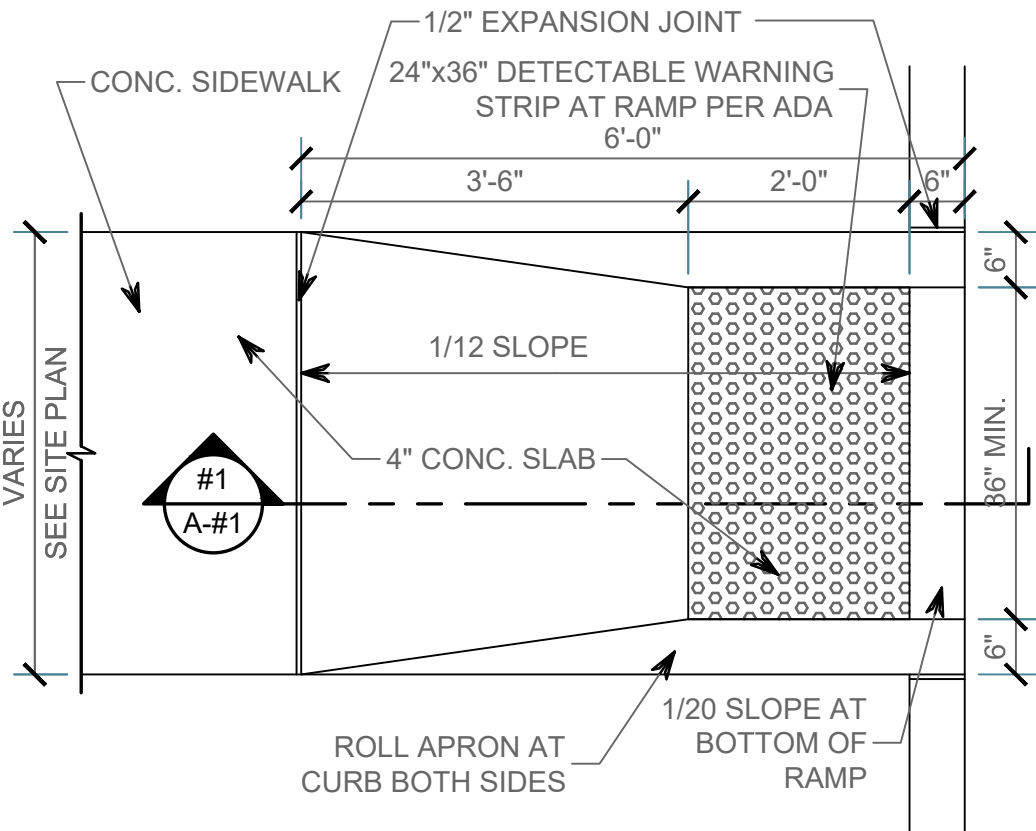
CONC. SIDEWALK DETAIL



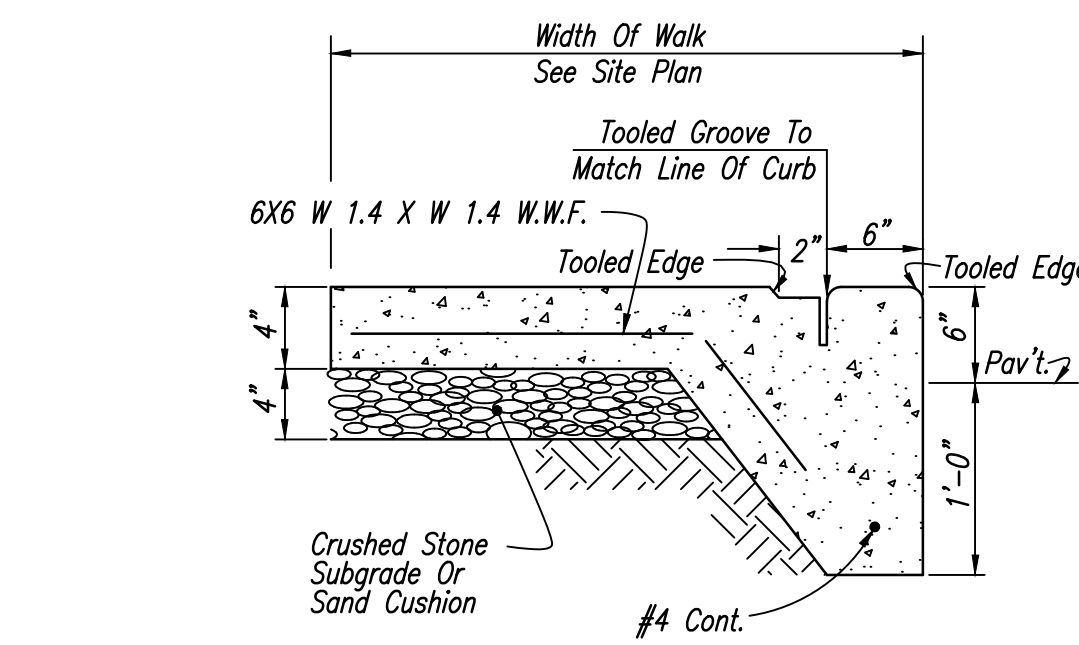
HANDICAPPED PARKING



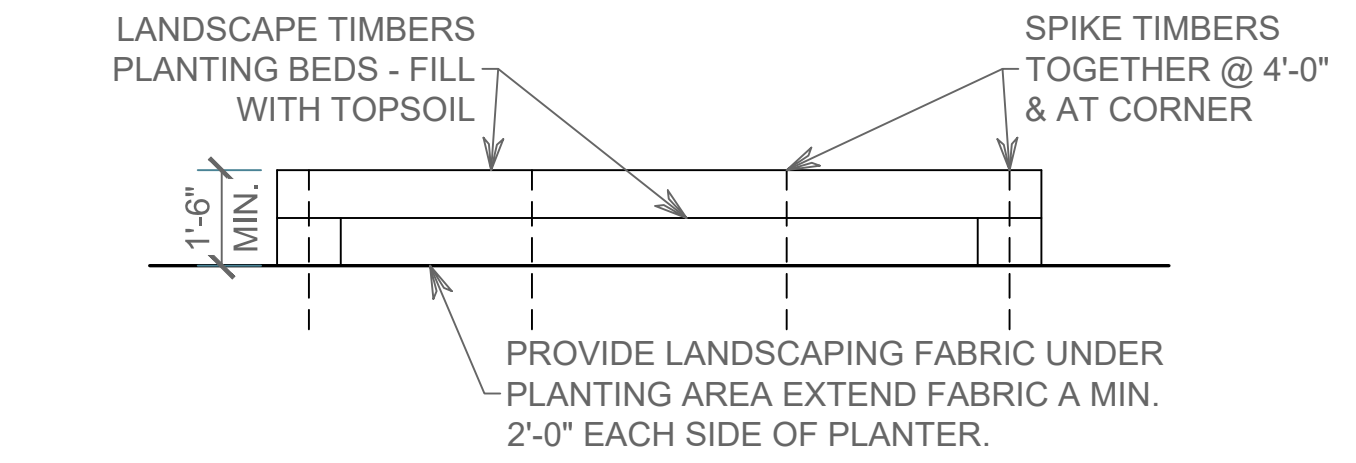
CONCRETE CURB DETAIL



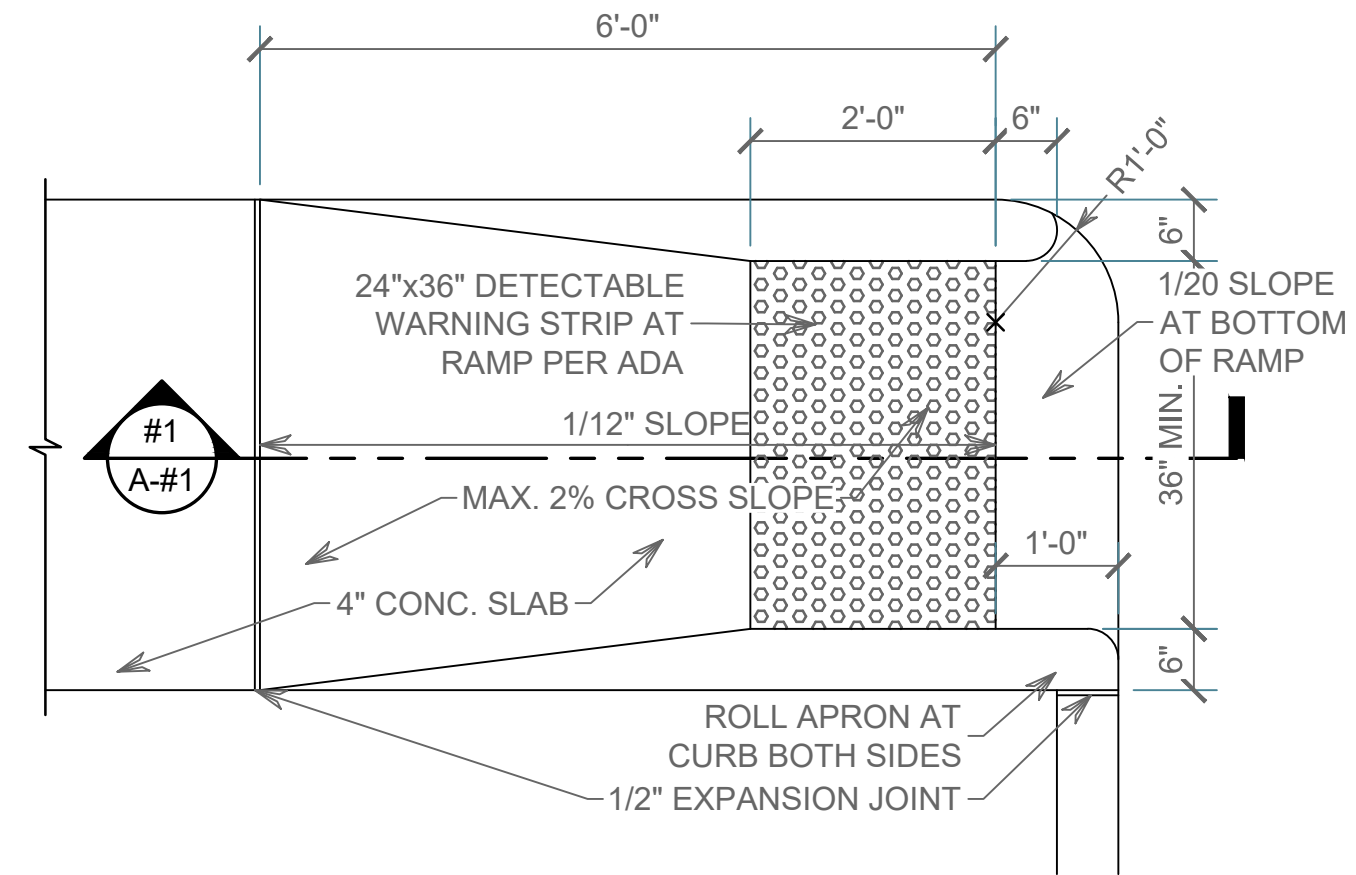
CONCRETE RAMP PLAN



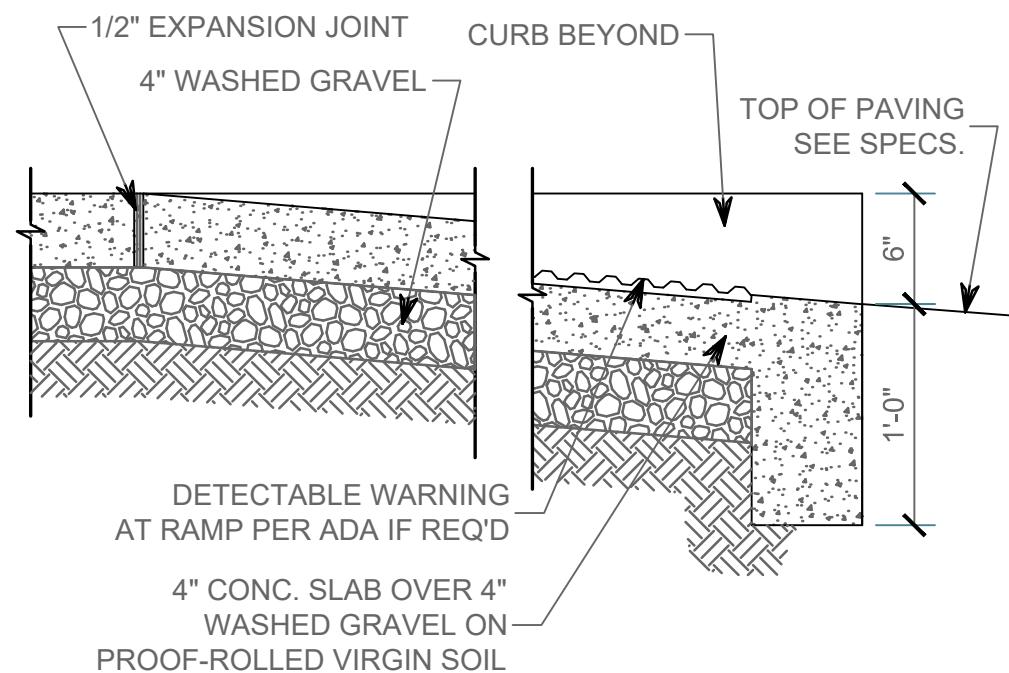
SIDEWALK W/INTEGRAL CURB DETAIL



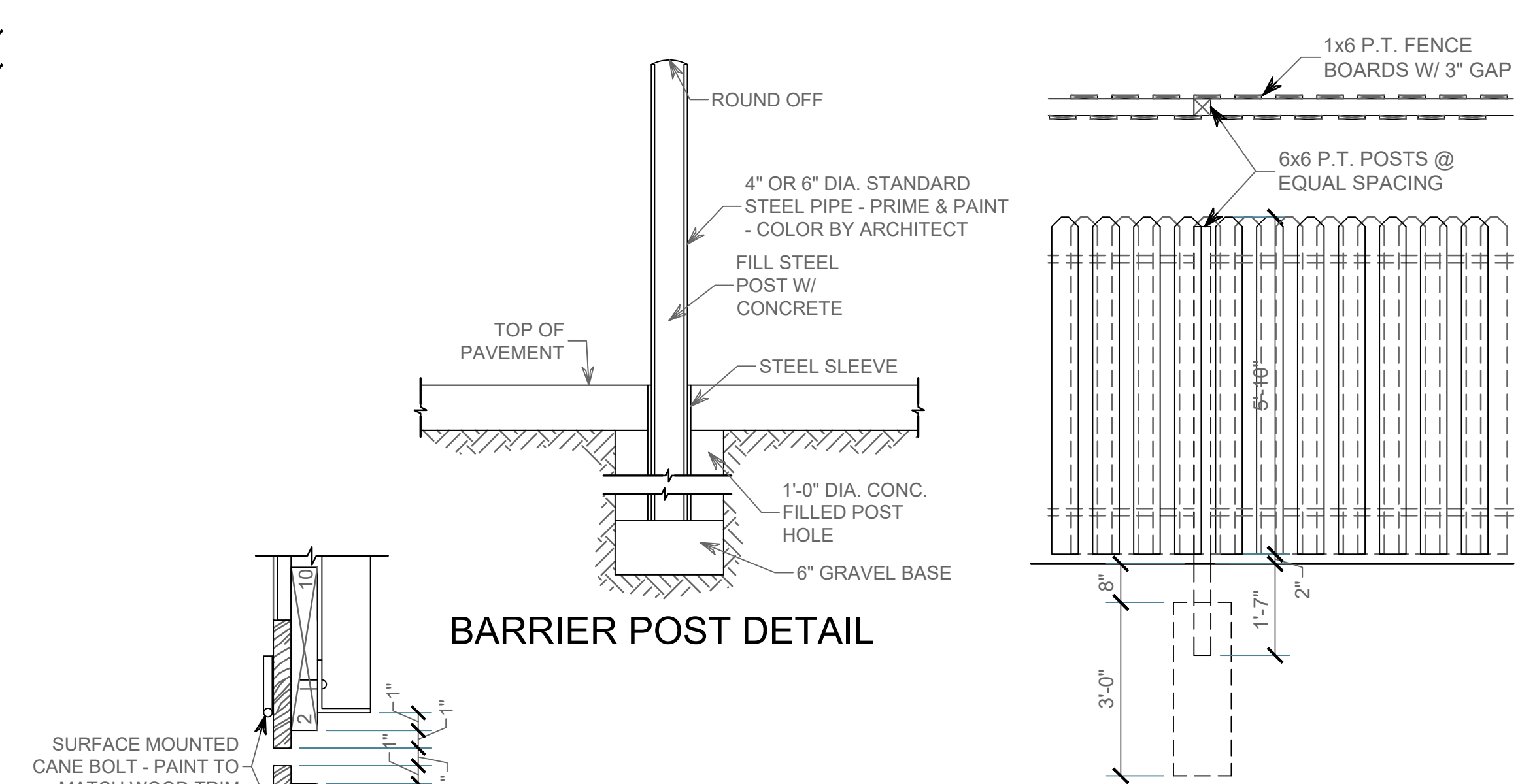
RAISED PLANTING BED



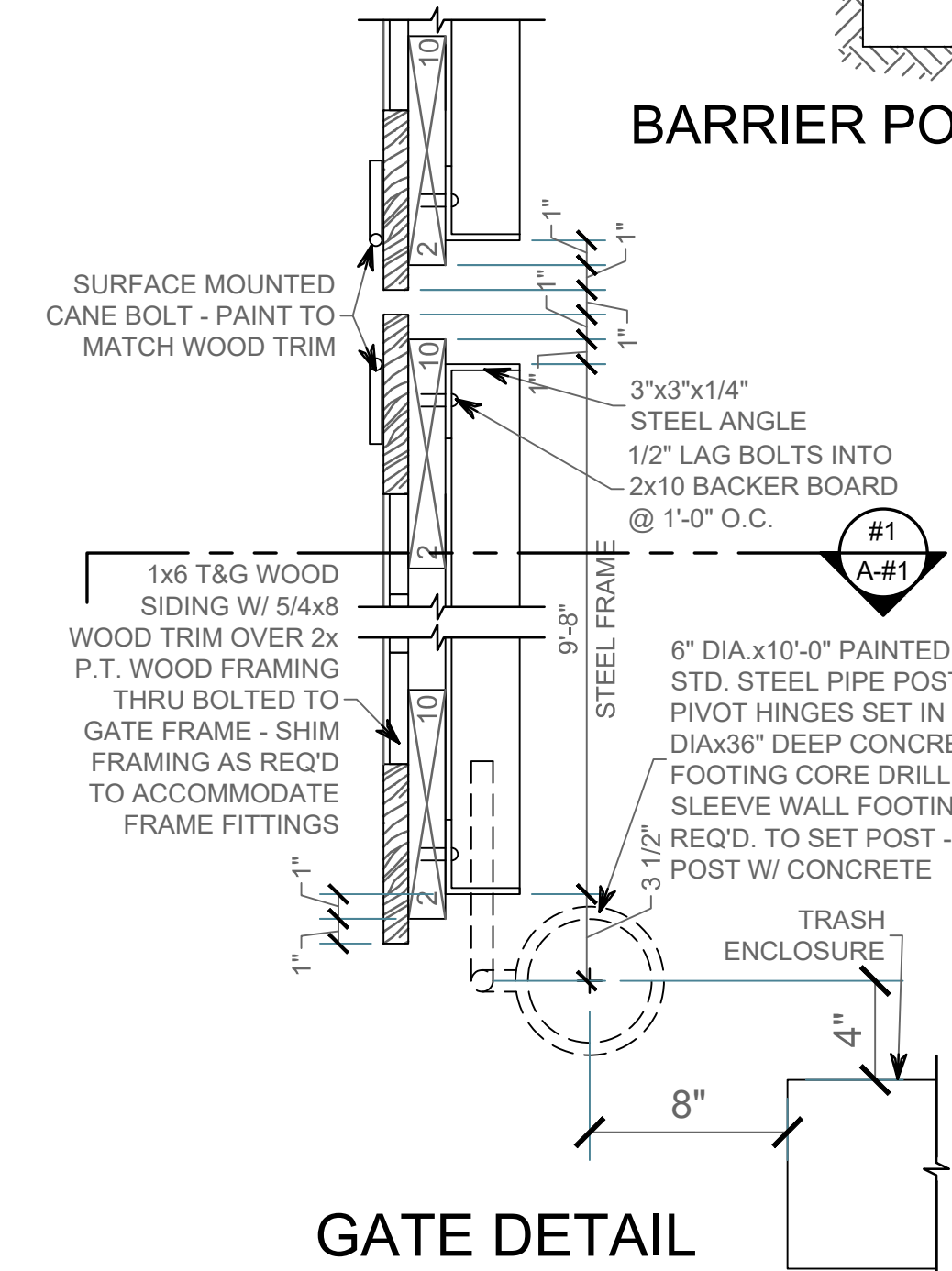
CONCRETE RAMP PLAN



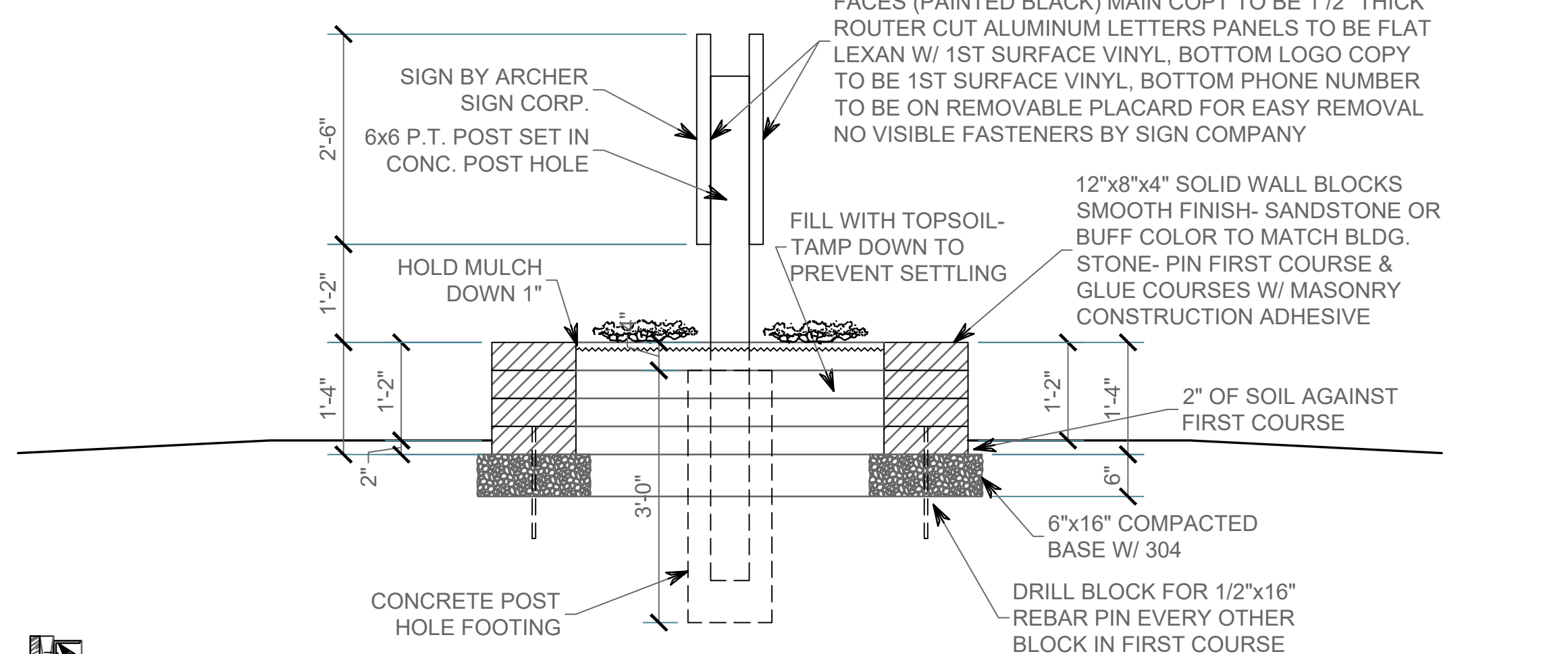
CONC. RAMP DETAIL



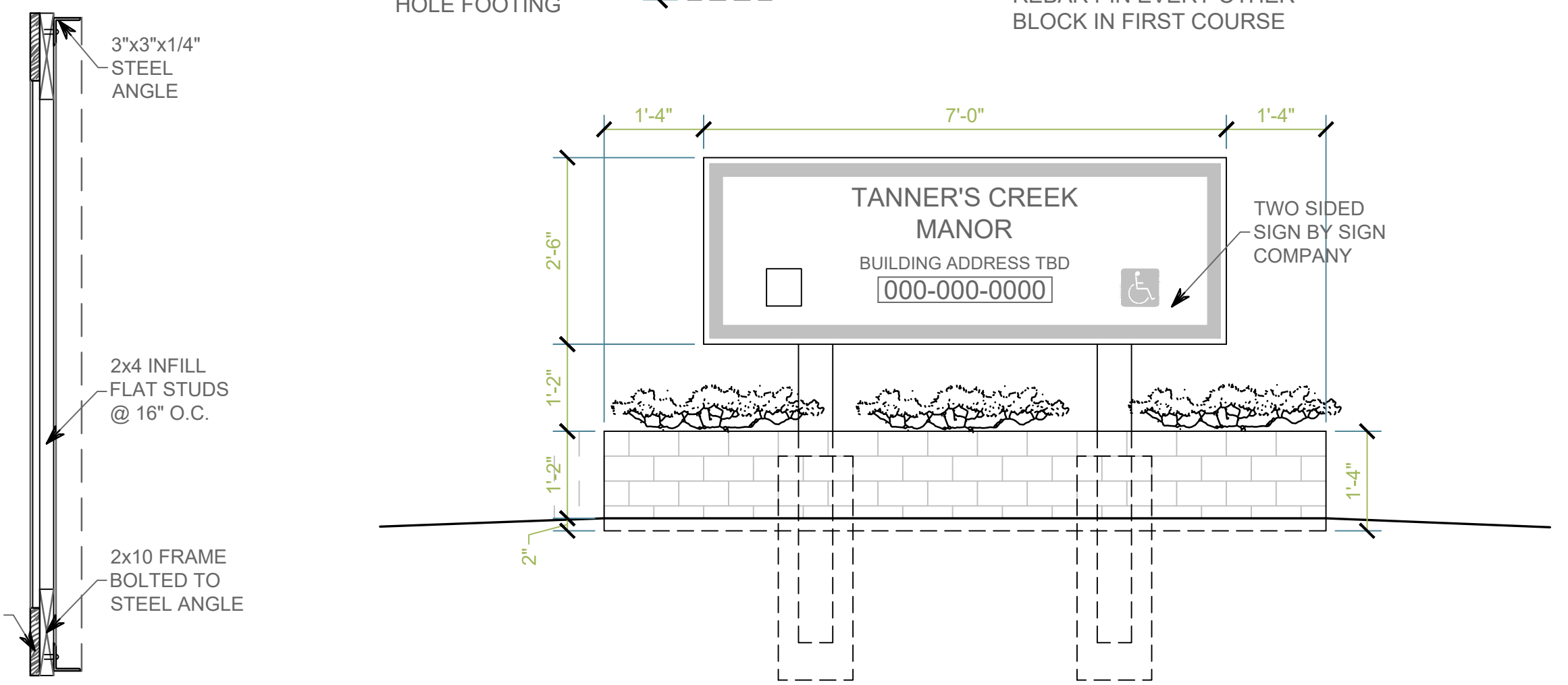
BARRIER POST DETAIL



GATE DETAIL



CONCRETE PARKING BLOCK



SECTION



Sheet Title	<i>EX. CONDITIONS & DEMO PLAN</i>
Project Title	<i>58 DOUGHTY ROAD SECTION-15, TOWN-5-NORTH, RANGE-1-WEST CITY OF LAWRENCEBURG DEARBORN COUNTY, INDIANA</i>

EXISTING UNDERGROUND UTILITIES REPRESENTED ON THIS DRAWING ARE
APPROXIMATE LOCATION ONLY BASED ON FIELD OBSERVATIONS AND
AVAILABLE RECORDS. CONTACT THE LOCAL UTILITY PROTECTION SERVICES AND
AGENCIES PRIOR TO ANY EXCAVATION OR CONSTRUCTION.

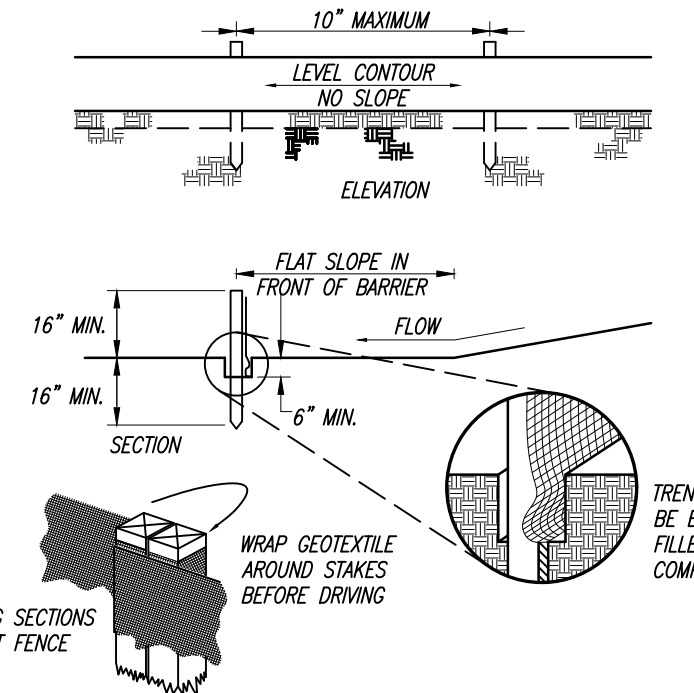
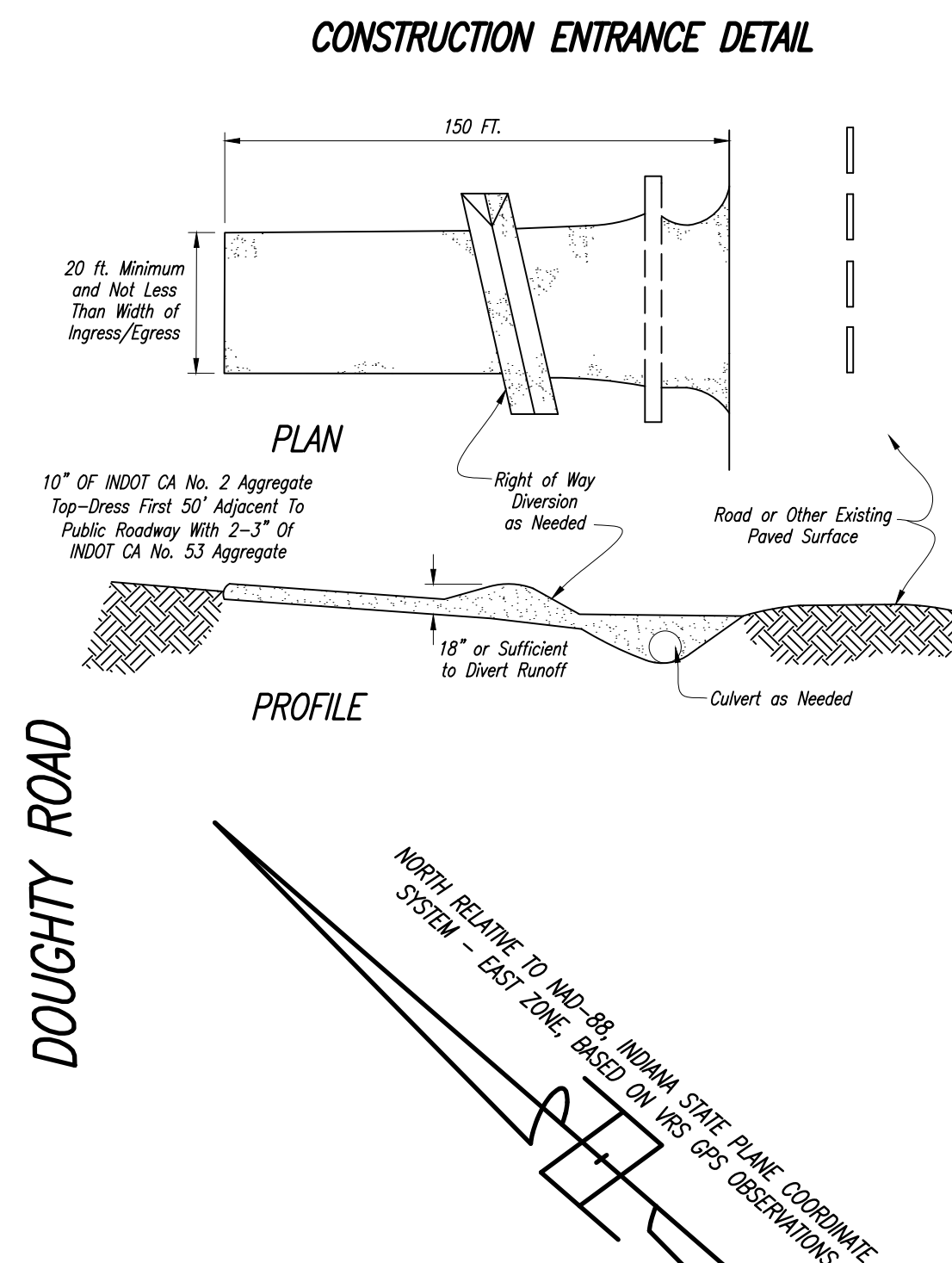
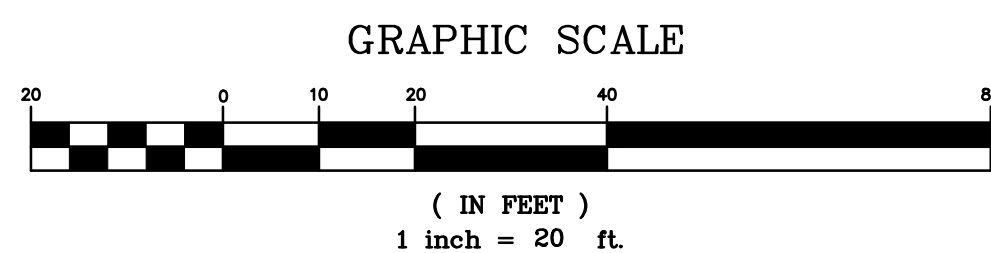
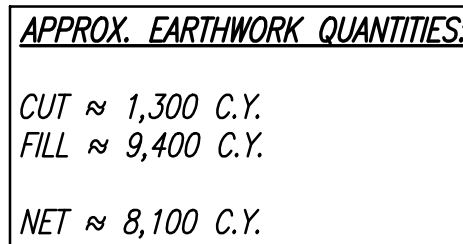
ELEVATION DATUM SHOWN IS RELATIVE
TO NAVD 88 BASED ON VRS GPS OBSERVATIONS.

SUBJECT PROPERTY IS LOCATED IN FLOOD ZONE "X", "X-2" and "AE" AS
DETERMINED BY A PERSONAL REVIEW OF FLOOD MAP NO. 18029C0201C, DATED
APRIL 16, 2014 OF THE NATIONAL FLOOD INSURANCE PROGRAM.
BASE FLOOD ELEVATION = 499.0



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BIELBY ROAD
(R/W VARIES)



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

GRADING PLAN

58 DOUGHTY ROAD
15, TOWN-5-NORTH, RANGE-1-WEST
CITY OF LAWRENCEBURG
DEARBORN COUNTY, INDIANA

**Abercrombie
& Associates, Inc.**
Civil Engineering + Surveying
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Cincinnati, Ohio 45247
13-385-5757
www.abercrombie-associates.com

Doc No. 26-0001

SURFACE STABILIZATION

Permanent Seeding



Permanent seeding involves the establishment of a permanent vegetative cover to protect soils from erosive forces.

Purpose

- To provide permanent vegetative cover and improve visual aesthetics of a project site.
- To reduce erosion and sedimentation damage by stabilizing disturbed areas.
- To reduce problems associated with mud or dust from unvegetated soil surfaces.
- To reduce sediment-laden storm water runoff from being transported to downstream areas.

Specifications

Seedbed Preparation

Grade and apply soil amendments.

Seeding Frequency

Seed final graded areas daily while soil is still loose and moist.

Density of Vegetative Cover

Ninety percent or greater over the soil surface.

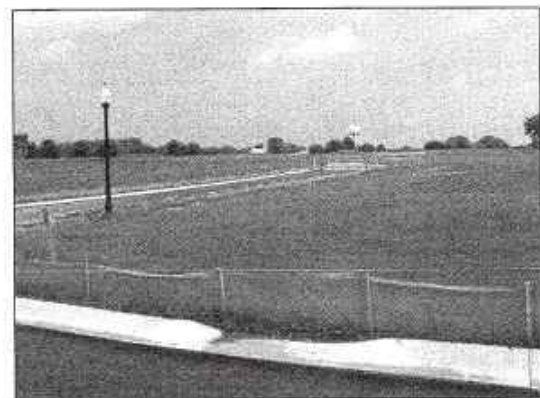
October 2007

Chapter 7

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SURFACE STABILIZATION

Temporary Seeding



Temporary seeding involves the establishment of rapid growing annual grasses or small grains to stabilize disturbed areas until such time as a permanent, nonerosive cover can be established.

Purpose

- To provide vegetative cover where permanent seeding is not desirable or practical.
- To reduce erosion and sedimentation damage by stabilizing disturbed areas.
- To reduce problems associated with mud or dust from unvegetated soil surfaces during construction.
- To reduce sediment-laden storm water runoff from being transported to downstream areas.
- To improve visual aesthetics of construction areas.

Specifications

Seedbed Preparation

Grade and apply soil amendments.

Seeding Frequency

Seed rough graded areas daily while soil is still loose and moist.

Density of Vegetative Cover

Eighty percent or greater over the soil surface.

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CONCRETE WASHOUT

- These systems are manufactured to resist damage from construction equipment and protect against leaks or spills.
- Manufacturer or supplier provides the containers. The project site manager maintains the system or the supplier provides complete service that includes maintenance and disposal.
- Units are often available with or without ramps, with ramps lend themselves to accommodate pump trucks.
- Maintain according to the manufacturer's recommendations.

Designed and Installed Units

These units are designed and installed on site. They tend to be less reliable than prefabricated systems and are often prone to failure. Concrete washout systems can be constructed above or below grade. It is not uncommon to have a system that is partly below grade with an additional containment structure above grade.

- Washout systems shall utilize a pit or bermed area designed and maintained at a capacity to contain all liquid and concrete waste generated by washout operations.
- The volume of the system must also be designed to contain runoff that drains to the system and rainfall that enters the system for a two-year frequency, 24-hour storm event.

Below Grade System

- A washout system installed below grade should be a minimum of ten feet wide by ten feet long, but sized to contain all liquid and waste that is expected to be generated between scheduled cleanout periods. The size of the pit may be limited by the size of polyethylene available. The polyethylene lining should be of adequate size to extend over the entire excavation.
- Include a minimum 12-inch freeboard to reasonably ensure that the structure will not overflow during a rain event.
- Line the pit with ten millimeter polyethylene lining to collect seepage.
- The bottom of excavated pit should be above the seasonal high water table.

Above Grade System

- A system designed and built above grade should be a minimum of ten feet wide by ten feet long, but sized to contain all liquid and waste that is expected to be generated between scheduled cleanout periods. The size of the containment system may be limited by the size of

CONCRETE WASHOUT

- polyethylene available. The polyethylene lining should be of adequate size to extend over the berm or containment system.
- The system design may utilize an earthen berm, straw bales, sandbags, or other acceptable barriers that will maintain its shape and integrity and support the polyethylene lining.
- Include a minimum four-inch freeboard as part of the design.

Washout Procedures

- Do not leave excess mud in the chutes or hopper at the pour. Every effort should be made to empty the chutes and hopper at the pour. The less material left in the chutes and hopper, the quicker and easier the cleanout. Small amounts of excess concrete (not washout water) may be disposed of in areas that will not result in flow to an area that is to be protected.
- At the washout location, scrape as much material from the chutes as possible before washing them. Use non-water cleaning methods to minimize the chance for waste to flow off site.
- Remove as much mud as possible when washing out.
- Stop washing out in an area if you observe water running off the designated area or if the containment system is leaking or overflowing and ineffective.
- Do not back flush equipment at the project site. Back flushing should be restricted to the plant as it generates large volumes of waste that more than likely will exceed the capacity of most washout systems. If an emergency arises, back flush should only be performed with the permission of an on-site manager for the project.
- Do not use additives with wash water. Do not use solvents or acids that may be used at the target plant.

Materials

- Minimum of ten millimeter polyethylene sheeting that is free of holes, tears, and other defects. The sheeting selected should be of an appropriate size to fit the washout system without seams or overlap of the lining (designed and installed systems).
- Signage.
- Orange safety fencing or equivalent.
- Straw bales, sandbags (bags should be ultraviolet-stabilized geotextile fabric), soil material, or other appropriate materials that can be used to construct a containment system (above grade systems).

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PERMANENT SEEDING

cover is not achieved. Reseeding or overseeding can be easily accomplished if the soil surface remains well protected with mulch.

- Select a seeding mixture and rate from Table 1. Select seed mixture based on site conditions, soil pH, intended land use, and expected level of maintenance.
- Apply seed uniformly with a drill or cultipacker seeder (see Figure 1) or by broadcasting (see Figure 2). Plant or cover the seed to a depth of one-fourth to one-half inch. If drilling or broadcasting the seed, ensure good seed-to-soil contact by firming the seedbed with a roller or cultipacker after completing seeding operations. (If seeding is done with a hydroseeder (see Figure 3), fertilizer and mulch can be applied with the seed in a slurry mixture.)
- Mulch all seeded areas (see **Mulching** on page 55 and **Compost Mulching** on page 59) and use appropriate methods to anchor the mulch in place. Consider using erosion control blankets on sloping areas and conveyance channels (see **Erosion Control Blanket** on page 63).

Maintenance

- Inspect within 24 hours of each rain event and at least once every seven calendar days until the vegetation is successfully established.
- Characteristics of a successful stand include vigorous dark green or bluish-green seedlings with a uniform vegetative cover density of 90 percent or more.
- Check for erosion or movement of mulch.
- Repair damaged, bare, gullied, or sparsely vegetated areas and then fertilize, reseed, and apply and anchor mulch.
- If plant cover is sparse or patchy, evaluate the plant materials chosen, soil fertility, moisture condition, and mulch application; repair affected areas either by overseeding or preparing a new seedbed and reseeding. Apply and anchor mulch on the newly seeded areas.
- If vegetation fails to grow, consider soil testing to determine soil pH or nutrient deficiency problems. (Contact your soil and water conservation district or cooperative extension office for assistance.)
- If additional fertilization is needed to get a satisfactory stand, do so according to soil test recommendations.
- Add fertilizer the following growing season. Fertilize according to soil test recommendations.
- Fertilize turf areas as annually. Apply fertilizer in a split application. For cool-season grasses, apply one-half of the fertilizer in late spring and one-half in early fall. For warm-season grasses, apply one-third in early spring, one-third in late spring, and the remaining one-third in middle summer.

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TEMPORARY SEEDING

Application

Seedbed Preparation

- Test soil to determine pH and nutrient levels.
- Apply soil amendments as recommended by the soil test. If testing is not done, apply 400 to 600 pounds per acre of 12-12-12 analysis fertilizer, or equivalent.
- Work the soil amendments into the upper two to four inches of the soil with a disk or rake operated across the slope.

Seeding

- Select a seed species or an appropriate seed mixture and application rate from Table 1.
- Apply seed uniformly with a drill or cultipacker seeder or by broadcasting. Plant or cover seed to the depth shown in Table 1.

Notes:

- If drilling or broadcasting the seed, ensure good seed-to-soil contact by firming the seedbed with a roller or cultipacker after completing seeding operations.
- Daily seeding when the soil is moist is usually most effective.
- If seeding is done with a hydroseeder, fertilizer and mulch can be applied with the seed in a slurry mixture.
- Apply mulch (see **Mulching** on page 55 or **Compost Mulching** on page 59) and anchor it in place.

Maintenance

- Inspect within 24 hours of each rain event and at least once every seven calendar days.
- Check for erosion or movement of mulch and repair immediately.
- Monitor for erosion damage and adequate cover (80 percent density); reseed, fertilize, and apply mulch where necessary.
- If nitrogen deficiency is apparent, top-dress fall seeded wheat or rye seeding with 50 pounds per acre of nitrogen in February or March.

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CONCRETE WASHOUT

- Metal pins or staples at a minimum of six inches in length, sandbags, or alternative fastener to secure polyethylene lining to the containment system.
- Non-collapsing and non-water holding cover for use during rain events (optional).

Installation

Prefabricated Washout Systems/Containers

- Install and locate according to the manufacturer's recommendations.

Designed and Installed Systems

- Utilize and follow the design in the storm water pollution prevention plan to install the system.
- Dependent upon the type of system, either excavate the pit or install the containment system.
- A base shall be constructed and prepared that is free of rocks and other debris that may cause tears or punctures in the polyethylene lining.
- Install the polyethylene lining. For excavated systems, the lining should extend over the entire excavation. The lining for bermed systems should be installed over the pooling area with enough material to extend the lining over the berm or containment system. The lining should be secured with pins, staples, or other fasteners.
- Place flags, safety fencing, or equivalent to provide a barrier to construction equipment and other traffic.
- Place a non-collapsing, non-water holding cover over the washout facility prior to a predicted rainfall event to prevent accumulation of water and possible overflow of the system (optional).
- Install signage that identifies concrete washout areas.
- Post signs directing contractors and suppliers to designated locations.
- When necessary, provide stable ingress and egress (see **Temporary Construction Ingress/Egress** Pad on page 17) or alternative approach pad for concrete washout systems.

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PERMANENT SEEDING

Table 1. Permanent Seeding Recommendations

This table provides several seed mixture options. Additional seed mixtures are available commercially. When selecting a mixture, consider intended land use and site conditions, including soil properties (e.g., soil pH and drainage), slope aspect, and the tolerance of each species to shade and drought.

Open Low-Maintenance Areas (remaining idle more than six months)

Seed Mixtures	Rate per Acre Pure Live Seed	Optimum Soil pH
1. Perennial ryegrass - white clover ¹	70 lbs. 2 lbs.	5.6 to 7.0
2. Perennial ryegrass - tall fescue ¹	70 lbs. 60 lbs.	5.6 to 7.0
3. Tall fescue ¹ - white clover ¹	70 lbs. 2 lbs.	5.5 to 7.5

Steep Banks and Cuts, Low-Maintenance Areas (not mowed)

Seed Mixtures	Rate per Acre Pure Live Seed	Optimum Soil pH
1. Smooth bromegrass - red clover ¹	35 lbs. 20 lbs.	5.5 to 7.0
2. Tall fescue ¹ - white clover ¹	50 lbs. 2 lbs.	5.5 to 7.5
3. Tall fescue ¹ - red clover ¹	50 lbs. 20 lbs.	5.5 to 7.5
4. Orchard grass - red clover ¹ - white clover ¹	30 lbs. 20 lbs. 2 lbs.	5.6 to 7.0
5. Crownvetch ¹ - tall fescue ¹	12 lbs. 30 lbs.	5.6 to 7.0

Lawns and High-Maintenance Areas

Seed Mixtures	Rate per Acre Pure Live Seed	Optimum Soil pH
1. Bluegrass	140 lbs.	5.5 to 7.0
2. Perennial ryegrass (turf type)	80 lbs. 90 lbs.	5.6 to 7.0
3. Tall fescue (turf type) ² - bluegrass	170 lbs. 30 lbs.	5.6 to 7.5

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SITE MANAGEMENT MEASURES

Concrete Washout



Concrete washout areas are designated locations within a construction site that are either a prefabricated unit or a designed measure that is constructed to contain concrete washout. Concrete washout systems are typically used to contain wash-out water when chutes and hoppers are rinsed following delivery.

Purpose

Concrete washout systems are implemented to reduce the discharge of pollutants that are associated with concrete washout waste through consolidation of solids and retention of liquids. Uncured concrete and associated liquids are highly alkaline which may leach into the soil and contaminate ground water or discharge to a waterbody or wetland which can elevate the pH and be harmful to aquatic life. Performing concrete washout in designated areas and into specifically designed systems reduces the impact concrete washout will have on the environment.

Specifications

Site Management

- Complete construction/installation of the system and have washout locations operational prior to concrete delivery.
- Do not wash out concrete trucks or equipment into storm drains, wetlands, streams, rivers, creeks, ditches, or streets.
- Never wash out into a storm sewer drainage system. These systems are typically connected to a natural conveyance system.
- Where necessary, provide stable ingress and egress (see **Temporary Construction Ingress/Egress** Pad on page 17).
- It is recommended that washout systems be restricted to washing concrete from mixer and pump trucks and not used to dispose of excess concrete or

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CONCRETE WASHOUT

Maintenance

- Inspect daily and after each storm event.
- Inspect the integrity of the overall structure including, where applicable, the containment system.
- Inspect the system for leaks, spills, and tracking of soil by equipment.
- Inspect the polyethylene lining for failure, including tears and punctures.
- Once concrete wastes harden, remove and dispose of the material.
- Excess concrete should be removed when the washout system reaches 50 percent of the design capacity. Use of the system should be discontinued until appropriate measures can be initiated to clean the structure. Prefabricated systems should also utilize this criterion, unless the manufacturer has alternate specifications.
- Upon removal of the solids, inspect the structure. Repair the structure as needed or construct a new system.
- Dispose of all concrete in a legal manner. Reuse the material on site, recycle, or haul the material to an approved construction/demolition landfill site. Recycling of material is encouraged. The waste material can be used for multiple applications including but not limited to roadbeds and building. The availability for recycling should be checked locally.
- The plastic liner should be replaced after every cleaning; the removal of material will usually damage the lining.
- The concrete washout system should be repaired or enlarged as necessary to maintain capacity for concrete waste.
- Concrete washout systems are designed to promote evaporation. However, if the liquids do not evaporate and the system is near capacity it may be necessary to vacuum or remove the liquids and dispose of them in an acceptable method. Disposal may be allowed at the local sanitary sewer authority provided their National Pollutant Discharge Elimination System permits allow for acceptance of this material. Another option would be to utilize a secondary containment system or basin for further dewatering.
- Prefabricated units are often pumped and the company supplying the unit provides this service.
- Inspect construction activities on a regular basis to ensure suppliers, contractors, and others are utilizing designated washout areas. If concrete waste is being disposed of improperly, identify the violators and take appropriate action.

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Chapter 7

PERMANENT SEEDING

Channels and Areas of Concentrated Flow

Seed Mixtures	Rate per Acre Pure Live Seed	Optimum Soil pH
1. Perennial ryegrass - white ¹	150 lbs. 2 lbs.	5.5 to 7.0
2. Kentucky bluegrass - smooth bromegrass - switchgrass - timothy - perennial ryegrass - white clover ¹	20 lbs. 10 lbs. 3 lbs. 4 lbs. 10 lbs. 2 lbs.	5.5 to 7.5
3. Tall fescue ¹ - white clover ¹	150 lbs. 2 lbs.	5.5 to 7.5
4. Tall fescue ¹ - perennial ryegrass - Kentucky bluegrass	150 lbs. 20 lbs. 20 lbs.	5.5 to 7.5

- For best results: (a) legume seed should be inoculated; (b) seeding mixtures containing legumes should preferably be spring-seeded, although the grass may be fall-seeded and the legume frost-seeded (see **Dormant Seeding and Frost Seeding** on page 47); and (c) if legumes are fall-seeded, do so in early fall.

- Tall fescue provides little cover for, and may be toxic to some species of wildlife. The Indiana Department of Natural Resources recognizes the need for additional research on alternatives such as buffalograss, orchardgrass, smooth bromegrass, and switchgrass. This research, in conjunction with demonstration areas, should focus on erosion control characteristics, wildlife toxicity, turf durability, and drought resistance.

Notes:

- An oat or wheat companion or nurse crop may be used with any of the above permanent seeding mixtures, at the following rates: (a) spring oats - one-fourth to three-fourths bushel per acre (b) wheat - no more than one-half bushel per acre
- A high potential for fertilizer, seed, and mulch to wash exists on steep banks, cuts, and in channels and areas of concentrated flow.

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CONCRETE WASHOUT

residual loads due to potential to exceed the design capacity of the washout system. Small amounts of excess or residual concrete (not washout water) may be disposed of in areas that will not result in flow to an area that is to be protected.

- Install systems at strategic locations that are convenient and in close proximity to work areas and in sufficient number to accommodate the demand for disposal.
- Install signage identifying the location of concrete washout systems.

Location

- Locate concrete washout systems at least 50 feet from any creeks, wetlands, ditches, karst features, or storm drains/natural conveyance systems.
- To the extent practical, locate concrete washout systems in relatively flat areas that have established vegetative cover and do not receive runoff from adjacent land areas.
- Locate in areas that provide easy access for concrete trucks and other construction equipment.
- Locate away from other construction traffic to reduce the potential for damage to the system.

General Design Considerations

- The structure or system shall be designed to contain the anticipated washout water associated with construction activities.
- The system shall be designed, to the extent practical, to eliminate runoff from entering the washout system.
- Runoff from a rainstorm or snowmelt should not carry wastes away from the washout location.
- Washout will not impact future land uses (i.e., open spaces, landscaped areas, home sites, parks).
- Washout systems/containment measures may also be utilized on smaller individual building sites. The design and size of the system can be adjusted to accommodate the expected capacity.

Prefabricated Washout Systems/Containers

- Self-contained sturdy containment systems that are delivered to a site and located at strategic locations for concrete disposal.

EROSION CONTROL PRACTICE SEQUENCE

- INSTALL CONSTRUCTION ENTRANCE DRIVE AS DEPICTED BY THIS PLAN AND APPLICABLE CONSTRUCTION DETAIL.
- INSTALL SILT FENCE AS DEPICTED ON THIS PLAN AND APPLICABLE DETAILS. CONSTRUCT CONCRETE WASHOUT BASIN.
- BEGIN MASS EARTH WORK WITH THE STRIPPING ON TOPSOIL.
- CONTINUE WITH MASS EARTHWORK BY ROUGH GRADING THE SITE.
- CONTINUE WITH SITE GRADING.
- MAINTAIN ALL EROSION CONTROL PRACTICES PER THE PROVIDED MAINTENANCE SPECIFICATIONS.
- DO NOT REMOVE ANY SEDIMENT TRAPPING PRACTICE UNTIL SUCH TIME AS ALL UPSTREAM DISTURBED AREAS HAVE BEEN ESTABLISHED WITH PERMANENT VEGETATIVE COVER.

APPROXIMATE CONSTRUCTION SCHEDULE:

JULY 2026
JULY/AUGUST 2026
AUGUST/SEPT 2026
OCTOBER 2026
SPRING 2027

INSTALL EROSION & SEDIMENT CONTROLS

BEGIN EARTHWORK

CONTINUE EARTHWORK & INSTALL UTILITIES

BUILDING CONSTRUCTION

PAVING

Date

5-11-26

Drawn By

B.P.

Checked By

D.L.

Score

NONE

DWG:

26-0001

DCSN/DL-DCSN

REVISIONS

6-22-26, 2007

Sheet Title

Project Title

58 DOUGHTY ROAD

SECTION-15, TOWN-5-NORTH, RANGE-1-1-WEST

CITY OF LAWRENCEBURG

DEARBORN COUNTY, INDIANA

8111 Cheval Road, Suite 200

Cincinnati, Ohio 45247

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Job No.

26-0001

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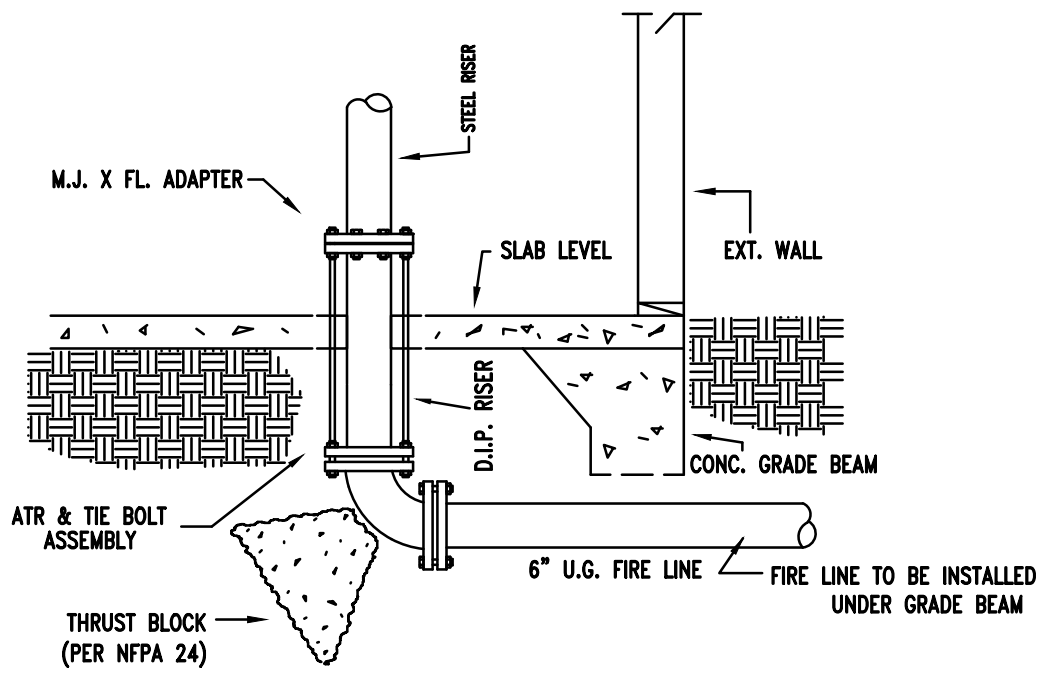
- STORM SEWER STRUCTURES:**
1. MANHOLES (STM. MH) SHALL BE STANDARD MANHOLE A, B OR C (E 720-MHST)
 2. YARD DRAINS (YD) SHALL BE NYLOPLAST DRAIN BASIN W/DOME GRATE, PIPE CATCH BASIN (E 720-CBST-06) W/ PIPE CATCH BASIN CASTING (E 720-CBCA-01), INLET TYPE F (E-720-INST-04) W/ TYPE 7 CASTING (E 720-EDCA-01) OR APPROVED EQUAL.
 3. CATCH BASINS (CB) SHALL BE INLET TYPE A (E 720-INST-01) OR CATCH BASIN TYPE A (E 720-CBST-01) W/ TYPE 2 CASTING (E 720-MHCA-01) OR APPROVED EQUAL.
 4. SINGLE GUTTER INLETS (SGI) SHALL BE INLET TYPE A (E 720-INST-01) W/ TYPE 8 CASTING (E 720-ICCA-04, 05, 06) OR APPROVED EQUAL.
 5. STORM STRUCTURE #103 SHALL BE INLET TYPE F (E 720-INST-04) W/ TYPE 7 CASTING (E 720-EDCA-01) OR APPROVED EQUAL.
 6. DRAIN BASINS SHALL BE NYLOPLAST DRAIN BASINS WITH STANDARD TRAFFIC DUTY GRATE OR APPROVED EQUAL, SIZE AND DETAILS PER ADS DRAWINGS (TO BE COORDINATED WITH STORMTECH DRAWINGS).
 7. STORM DETENTION STRUCTURE #400 SHALL BE 36" NYLOPLAST DRAIN BASIN WITH WEIR WALL OR APPROVED EQUAL.
 - 7.1. WEIR WALL: 1.5" Ø ORIFICE @ 481.50, (2) 8" Ø ORIFICES @ 484.70, 11" Ø ORIFICE @ 486.50, T/WALL @ 489.00

**STORMTECH MC-7200
PROPOSED ELEVATIONS**

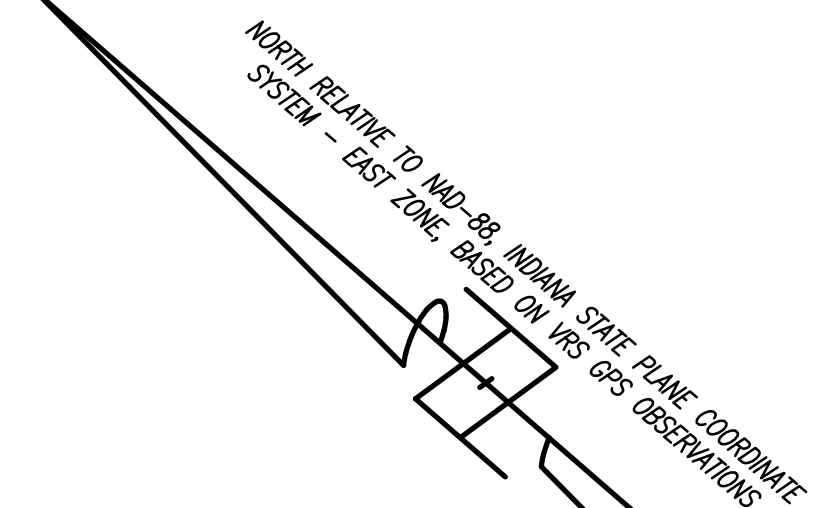
TOP OF STONE	505.00
TOP OF CHAMBER	504.00
BOTTOM OF CHAMBER	499.00
BOTTOM OF STONE 6" UNDERDRAIN INVERT	498.25

STORM WATER DETENTION FACILITY TABLE

DESIGNATION	HIGHWATER ELEVATION (FT. ABOVE M.S.L.)	WATER QUALITY VOLUME (C.F.)	PROVIDED STORAGE VOLUME (C.F.)
STORMTECH	744.26	5,060	12,112



**UNDERGROUND STUB UP
WITH ROD DETAIL**



RIVERA SECTION 4
P.C. 4, SLIDE 147
OPEN SPACE J7

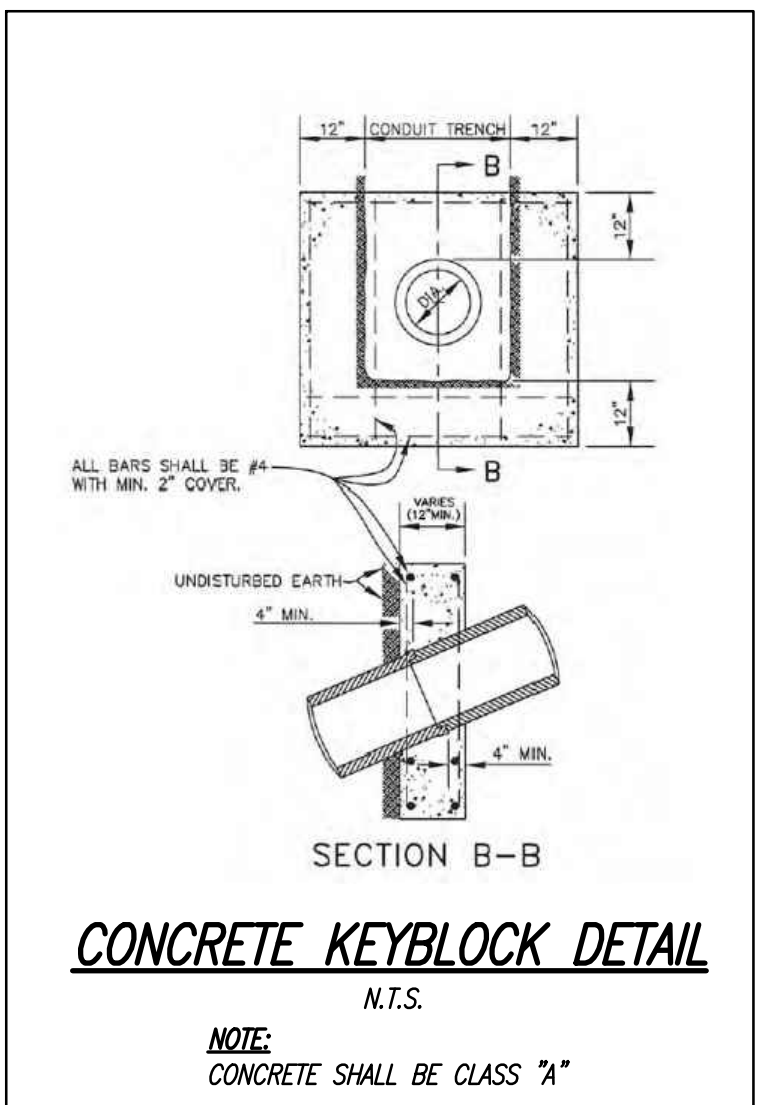
BILBY ROAD
(R/W VARIES)

DOUGHTY ROAD

DOUGHTY ROAD

Prop. Building (4-Story)
47,301 Sq. Ft. (Gross)
F.F.=510.50 (Ground)
F.F.=520.74 (First)
F.F.=530.98 (Second)

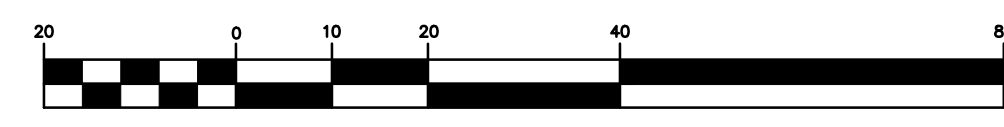
Prop. ADS Stormtech MC-7200
Underground Detention System
36 Chambers w/12 End Caps
Vol.=12,112 CF



CONCRETE KEYBLOCK DETAIL

N.T.S.
NOTE:
CONCRETE SHALL BE CLASS "A"

GRAPHIC SCALE



NOTE:
POST-DEVELOPED STORM WATER VELOCITIES
LEAVING THE SITE WILL NOT EXCEED EXISTING
VELOCITIES DURING A 25-YEAR STORM EVENT.

- ⊙ Denotes 4" D.S. Line @ 2.0% Min. To Connect To Storm Sewer System
- ⊙ Denotes 6" D.S. Line @ 2.0% Min. To Connect To Storm Sewer System
- ⊕ Denotes D.S. To Splash Block

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Date: 5-11-26

Drawn By: B.P.

Checked By: D.L.

Scale: 1" = 20'

REVISIONS

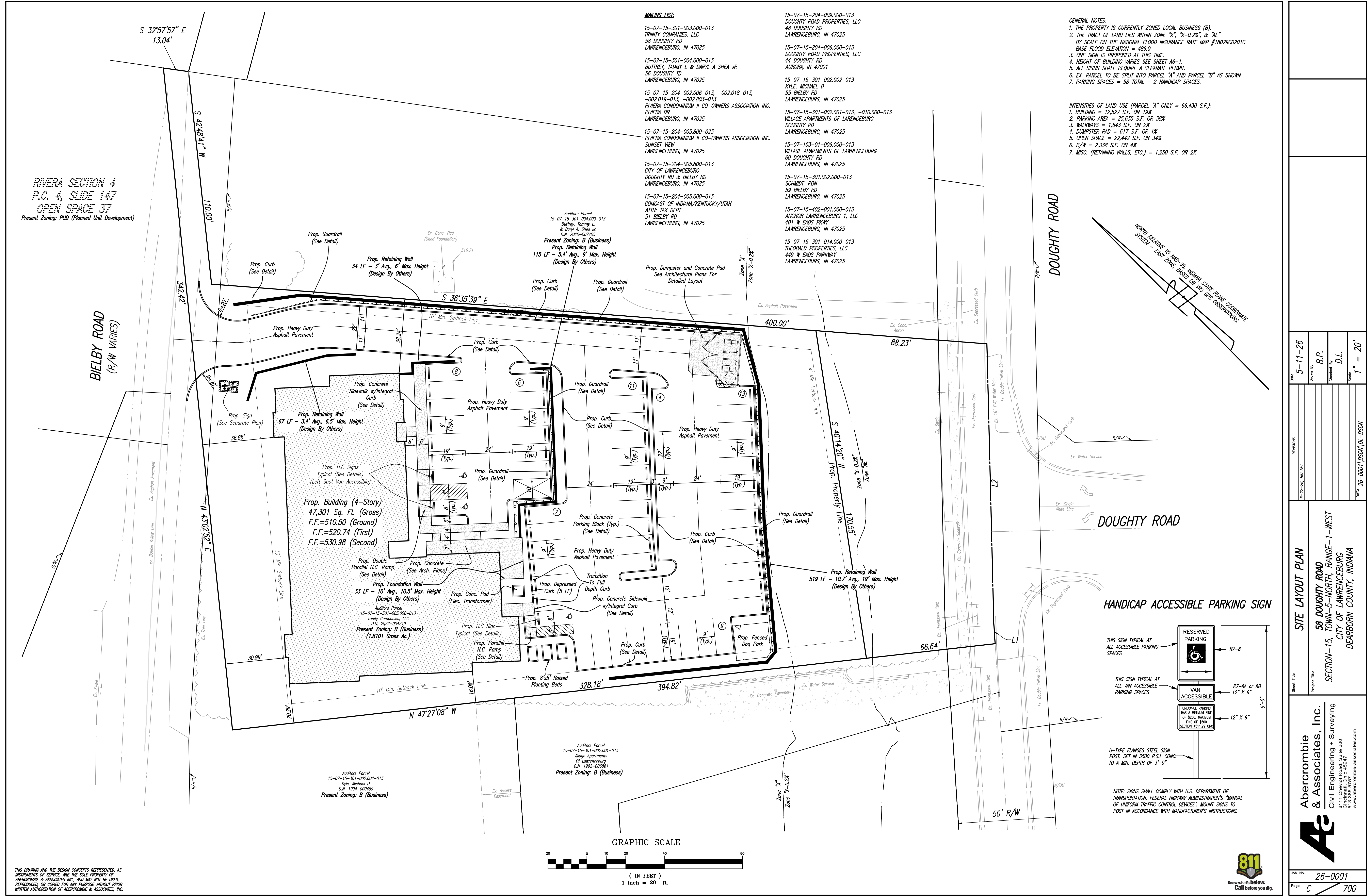
UTILITY PLAN

58 DOUGHTY ROAD
SECTION-15, TOWN-5-NORTH, RANGE-1-WEST
CITY OF LAWRENCEBURG
DEARBORN COUNTY, INDIANA

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SITE LAYOUT PLAN

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