



STATE TRUNK HIGHWAY CONNECTION APPLICATION

Wisconsin Department of Transportation (WisDOT)

DT1504 4/2023 Wis. Stat. ss. 86.07(2)(a), 84.09, 84.25, 84.295 & Wis. Adm. Code Ch. Trans 231

• Use this form to apply for a new connection to a state trunk highway (STH) or for altering, removing, or allowing an existing connection. • If the property has any legal restrictions that prohibit access to a STH, WisDOT cannot approve a STH connection for the property. • One DT1504 form is required per connection. Please type or print neatly in ink. Fill out the required information on all pages of this form per the instructions. For more information, visit: https://wisconsindot.gov/Pages/doing-bus/real-estate/permits/connections.aspx • Provide a copy of the property deed, title work related to the property purchase, and any property surveys.	Tracking #: 13-100316213-2023
	WISDOT OFFICE INFORMATION WisDOT SW Region -Madison 2101 Wright St Madison, WI 53704 attn: Wendy Braun

APPLICANT INFORMATION	1. Applicant Name and Mailing Address (Street/PO Box, City, State, ZIP Code) Westgate Partners LLC 1509 N Prospect Ave Milwaukee, WI 53202	2. Property Owner Name and Mailing Address (If not applicant) Same	3. If Not Property Owner, Reason for Request Same
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CONNECTION LOCATION INFORMATION	4. Highway Number(s) USH 12/18 STH 134	5. County Dane	6. ☐ City ☒ Village ☐ Town of: Cambridge	7. Side of the Highway ☐ North ☒ South ☐ East ☒ West
	8. Located within the: SE Quarter, of the SW Quarter, Section 1, Town 6 North, Range 12 East			9. Fire or Street Number (If applicable) N/A
	10. Name of Nearest Side Road from Location STH 134			11. How far is the location from the nearest non-side road connection (driveway or trail crossing) on the same highway? 350' SE
	Distance and Direction from the Side Road 0 NE (Feet or Miles) (N, S, E, W, A)			
Completed by WisDOT → Latitude: 43.0101 Longitude: -89.0237				

CONNECTION TYPE INFORMATION	12. Proposed Activity (Check one) ☒ Construct New ☐ Remove Existing ☐ Allow Existing ☐ Alter Existing Choose all applicable items from alter list →	13. Proposed Use (Check one – See instructions for category description) ☐ Urban – Commercial/Industrial ☐ Rural – Commercial/Industrial ☐ Urban – Residential ☐ Rural – Residential ☒ Public Road ☐ Rural – Agricultural ☐ Trail or Trail Crossing	16. Proposed Trips Per Day (Check one) ☐ Seasonal ☐ 51-100 ☐ 1-25 ☒ 101-1000 ☐ 26-50 ☐ Over 1000 → Peak hour traffic count: 728
	14. Proposed Width: 37' BOC - BOC 15. Proposed Surface: Asphalt		SEE PAGE 2 for QUESTIONS 17-27. SEE PAGE 3 FOR INDEMNIFICATION. SEE PAGES 4-6 FOR CONDITIONS AND PROVISIONS.

X <u>Jaco</u> (Property Owner or Authorized Representative)	<u>4-29-23</u> (Date)	<u>262-490-0017</u> (Telephone Number)	<u>todd1.stew@gmail.com</u> (Email address)
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The applicant affirms that all information provided on and submitted with this form is correct and complete. Providing incorrect or incomplete information may result in permit denial or revocation as well as criminal prosecution under Wis. Stat. s. [946.32](#).

↓ Completed by Wisconsin Department of Transportation – REVIEW UPON PERMIT ISSUANCE ↓

☐ Application DISMISSED ACCESS RIGHTS (1) NOT OWNED BY APPLICANT OR (2) CONTROLLED UNDER WIS. STAT. S. 84.25 OR 84.295. NO RIGHT TO APPLY EXISTS.	GENERAL CONDITIONS OF ISSUANCE #1-43 APPLY			
☐ Permit DENIED MAY BE APPEALED UNDER WIS. STAT. S. 86.073.	Permit Provisions Also Apply: ☐ Supplemental ☐ Special			
☐ WORK Permit APPROVED ONLY FOR PERFORMING WORK ON STATE TRUNK HIGHWAY RIGHT-OF-WAY UNDER WIS. STAT. S. 86.07(2)(a). THIS PERMIT IS REVOCABLE.	☒ Lane Closure System notification required			
☐ DOCUMENTATION of Authorized Access Point APPROVED BY WisDOT UNDER PREVIOUS WIS. STAT. S. 84.25 PROJECT. THIS IS NOT A PERMIT BUT SERVES TO DOCUMENT THE TYPE, USE, TRIPS PER DAY, CONFIGURATION, DRAINAGE, ETC. FOR THE STH CONNECTION.	☐ Insurance or performance bond required			
☒ CONNECTION Permit APPROVED DOES NOT CREATE A RIGHT OF ACCESS OR ACCESS EASEMENT FOR THE PROPERTY. THIS PERMIT IS REVOCABLE.	☐ Permit voids/replaces permit #			
X <u>Wendy Braun</u> (WisDOT Authorized Representative Signature – If Computer-filled, Brush Script Font)	☐ Transportation project plat ID #			
	☐ Temporary access. Permit expiration date below. See #35 .			
	☐ Shared Connection			
	Co-user name(s): Related ID #(s):			
Misc. info:				
6-29-2023 8-7-2023 11-17-2023				
Application Submitted Approved Work Start Approved Work Finish Approved Work Extension				
7-6-2023 7-12-2023 7-12-2024				
Application Completed Identification Number Issued Permit Expires Permit Amended				

→ Note: In questions 17-26, "the property" refers to the property for which this application is being made.

17. ☒ Yes ☐ No Is the property zoned? In either case, provide the appropriate documentation from the jurisdictional zoning authority.

➔ **Note:** In questions 17-26, "the property" refers to the property for which this application is being made.

17. ☒ Yes ☐ No Is the property zoned? In either case, provide the appropriate documentation from the jurisdictional zoning authority.

18. Explain how the land is currently being used:
Vacant – brush and agricultural

19. ☒ Yes ☐ No Are you aware of any plan to change the zoning or land use for the property? If yes, explain.
Zoning approvals already completed

20. ☒ Yes ☐ No Is this connection for the property that was also part of a land division or assemblage created on or after 2/1/99? If yes, explain.
CSM approved and recorded 2021

21. ☐ Yes ☒ No Do you own other property abutting the highway that is next to the property that this connection will serve? If yes, explain.

22. ☐ Yes ☒ No Does the property abut other public roads? If yes, provide all road names.

23. ☐ Yes ☒ No Are there any existing connections to any road serving the property? If yes, how many? _____

24. ☐ Yes ☒ No Are there any restrictions on the number, use, or location of connections to the property? If yes, explain.

25A. ☐ Yes ☒ No Are there any access easements across the property, or does any other property obtain access to a state trunk highway by crossing the property?

25B. ☐ Yes ☒ No Are there any easements or arrangements that allow the property to access a public road by crossing another property? If you answered yes to 25A and/or 25B, explain. See the instructions for what information to provide.

➔ **Note:** If you answered "yes" to question (Q) 24, 25A or 25B, provide a copy of **all documents** relevant to the restrictions and/or easements.

26. Provide the property tax identification number: **061201396101**

27. List the **proposed** work start and finish dates for construction of the connection. Check **not applicable** if work is not needed for this permit.
Start: 08/07/2023 Finish: 10/31/2023 ☐ Not Applicable

Best times of the day and/or days of the week that are more convenient for WisDOT to call you if needed: During work days

FOR ANY NEW OR RELOCATED CONNECTION, APPLICANT SHALL PLACE A FLAG OR MARKER IN THE HIGHWAY DITCH OR FORESLOPE (VISIBLE FROM THE HIGHWAY) AT THE PROPOSED LOCATION FOR WisDOT SITE REVIEW.

(Note: Once a permit is issued, the applicant become the permittee)

INDEMNIFICATION

The Permittee shall save and hold the State, its officers, employees, agents, and all private and governmental contractors and subcontractors with the State under Chapter 84 Wisconsin Statutes, harmless from actions of any nature whatsoever (including any by the Permittee himself/herself) which arise out of, or are connected with, or are claimed to arise out of or be connected with any of the following:

1. Any of the work done by the Permittee, or Permittee's contractors or agents (collectively "WORKERS").
2. The construction or maintenance of facilities by the Permittee or WORKERS, pursuant to this permit or any other permit issued by the State for construction of facilities within the highway.
3. As a result of action or inaction by Permittee or WORKERS resulting in damage to another that occurs:
 - a. While the Permittee or WORKERS are performing work, or
 - b. While any of the Permittee's or WORKER's property, equipment, or personnel, are in or about such place or the vicinity thereof, or
 - c. While any property constructed, placed, or operated by or on behalf of Permittee or WORKERS remains on the State's property or right-of-way pursuant to this permit or any other permit issued by the State.

This hold harmless provision applies, without limiting the generality of the foregoing, to all liability, damages, loss, expense, claims, demands and actions on account of personal injury, death or property loss to the State, its officers, employees, agents, contractors, subcontractors or frequenters, to the Permittee or WORKERS, their employees, agents, contractors, subcontractors or frequenters, or to any other persons, whether based upon, or claimed to be based upon, statutory (including, without limiting the generality of the foregoing, worker's compensation), contractual, tort, or whether or not caused or claimed to have been caused by active or inactive negligence or other breach of duty by the State, its officers, employees, agents, contractors, subcontractors or frequenters, Permittee, WORKERS, their employees, agents, contractors, subcontractors or frequenters; or any other person.

Without limiting the generality of the foregoing, the liability, damage, loss, expense, claims, demands and actions indemnified against shall include all liability, damage, loss, expense, claims, demands and actions for damage to any property, caused by Permittee or WORKERS pursuant to this permit or any other permit issued by the State for damage to property, lines or facilities on highway right-of-way resulting in any loss of power, telephone service, communications, data, information, or material; or involving property rights any other person of any kind whatsoever.

The Permittee shall at his/her own expense investigate all such claims and demands, attend to their settlement or other disposition, defend all actions based thereon and pay all charges of attorneys and all other costs and expenses of any kind arising from any such liability, damage, loss, claims, demands and actions.

All facilities constructed within the highway right-of-way by Permittee become the property of the State of Wisconsin, Department of Transportation, and may be altered or removed by the maintaining authority of the highway in accordance with state law.

Any transfer, whether voluntary or involuntary, of ownership or control of any property constructed, placed, or operated by or on behalf of the Permittee or WORKERS that remains on the State's property or right-of-way pursuant to this permit shall not release Permittee from any of the indemnification requirements of this permit.

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GENERAL CONDITIONS OF ISSUANCE

1. All connections have restrictions that are documented in the preprinted and filled-in information on this form along with any conditions, covenants, supplemental and special provisions, superimposed notes, and detail drawings added by WisDOT. In addition to WisDOT's approval, permittee shall also comply with relevant state statutes and administrative rules, plus any laws, codes, rules, regulations, ordinances, and permit requirements of other jurisdictional agencies. Alteration of this form by the permittee **is prohibited**.
2. The permit authorizes the work for the applicant ("permittee") indicated on this permit. It does not grant authority for the work of any other, either by present or future installation.
3. Comply with this permit in its entirety. Failure to comply with any part of this permit is the permittee's responsibility, which includes full restitution of any costs WisDOT incurs to remedy non-compliance acts and may include treble damages under Wis. Stat. s. [86.02](#). Further, if permittee fails to comply with any permit term, and WisDOT seeks to compel compliance by the permittee, enforce a permit term, revoke this permit, or recover costs associated with completing work required under this permit or redoing work not up to standards or specifications, permittee shall also be responsible for paying a sum that reimburses the State for time expended by its attorneys working on the matter and all court costs.
4. The venue for any court action related to permit enforcement shall be Dane County, Wisconsin.
5. Immediately cure any violation of this permit, particularly any failure to maintain a safe work site and proper work zone traffic control. Failure to do so may result in WisDOT stopping further work, removing permittee from the highway right-of-way (ROW), revoking the permit or any combination of these actions.
6. Except in cases where the permitted connection is constructed by forces acting on behalf of WisDOT as part of a highway improvement or maintenance project, the permittee shall do all of the following:
 - (a) Furnish all materials, do all work, and pay all costs for construction and maintenance of the connection and its appurtenances in the ROW. Use the appropriate materials and type and quality of the work for the connection type specified in this permit.
 - (b) Do all work without jeopardy to, or interference with, traffic using the highway
 - (c) Be responsible for all additional work WisDOT deems necessary due to plan error, omission, or unknown or changed field conditions
 - (d) Maintain the connection and its appurtenances within ROW limits, which includes keeping them in a proper state of repair, preventing the blockage or impairment of ROW drainage, and preventing the occurrence of aboveground obstacles that may cause serious injury or death to a motorist
 - (e) Do not disturb or cause the disturbance of any survey marker without the **prior written approval** of WisDOT
7. The permittee shall not make any changes to the connection, its appurtenances, or the highway ROW, including, without limitation, changes to the location (Q4-11), use (Q13), width (Q14), surface (Q15), or increase the number of trips per day (Q16) indicated by this permit without obtaining **prior written approval** from WisDOT. WisDOT will evaluate all potential highway impacts that may arise from any proposed change(s) and therefore, does not guarantee approval.
8. WisDOT does not assume any responsibility for removal or clearance of snow, ice, or sleet, or the opening of windrows of such material upon any portion of any connection along any state trunk highway even though snow, ice, or sleet is deposited or windrowed on said connection by its authorized representative while performing normal winter maintenance operations. No snow, ice, or sleet removed from the connection shall be deposited on any highway pavement or shoulder or in a manner that creates a safety hazard or obstruction to highway drainage.
9. Rock, asphalt, concrete, timber, or other embankment retention or marking treatments for the connection **are prohibited**. A plastic or metal post with or without a blue reflector(s) may be installed on each connection side. Posts cannot be larger than 2" square. Acceptable posts are shown at right. Plastic or metal posts shall not be stronger than the equivalent of a 1½-inch diameter standard metal pipe. Using red or amber reflectors **is prohibited** under Wis. Stat. s. [346.41\(3\)](#). Using wood posts also **is prohibited**.
 
10. **WisDOT reserves the right to revoke any permit issued** and the right to make such changes, additions, repairs, relocations, and removals within statutory limits to the connection or its appurtenances on the ROW as may at any time be considered necessary to facilitate highway relocation, reconstruction, widening, and maintenance, or to provide proper protection to life and property on or adjacent to the highway, or if alternative access to the property becomes available.
11. **If the permitted work has not been started by the Approved Work Finish Date, this permit is null and void. If the work has been started but not completed by the Approved Work Finish Date, no additional work shall be done unless authorized through an approved Work Extension Date or a subsequent permit from WisDOT.** WisDOT does not guarantee approval of a time extension or subsequent permit since the conditions WisDOT based its permit approval upon may have changed between the permit issuance and time extension request dates. **Execution of any part of the work shall verify agreement by the permittee to conform to this permit and to be bound by all of its requirements, restrictions, and obligations, all of which shall continue to be in full force and effect.**
12. Any connection or related feature built within the ROW becomes part of the highway and is subject to the highway maintaining authority's jurisdiction. Permit issuance does not guarantee in the future that the connection will remain in place or be allowed to function in the same manner as when it was installed. WisDOT or any other authority with jurisdiction over the highway may alter the highway in such a manner that changes the connection's function by installing medians, lanes, or traffic control devices, or may require that the connection be closed entirely. WisDOT attempts, in exercising its police powers, to avoid unreasonably restricting property access to a highway. Abutting landowners are generally not entitled to compensation for highway changes made by the maintaining authority for police power activities.
13. The permittee agrees that any connection constructed by or for the permittee is for the purpose of obtaining access to the property listed in Q26. The connection shall not be used for parking or servicing vehicles, or for advertising, storing, or selling goods on the ROW.

WORK ZONES

14. **Before starting any permitted work**, install the required warning signs, devices, etc. and ensure all are fully functional and maintained to protect the public, workers, and work site until all work is complete. Augment the work zone with additional signs, devices, and flaggers as needed to always protect people and property from injury or damage in all conditions, including changed or changing conditions. At all times while working within the highway ROW, (a) wear high-visibility safety attire, and (b) activate flashing (or strobe) amber or white lights on all vehicles and equipment. Comply with the [Work Zone Field Manual](#) or [Wisconsin Manual of Uniform Traffic Control Devices](#), current editions, for proper layouts, designs, sizes, and quantities of warning signs and devices, including other items that may be relevant for the work zone.
15. Secure the work site and associated traffic control zone against any hazard to the public, both when the site is attended and unattended during off-hours, holidays, and nighttime hours. This includes vehicles, equipment, and materials.
16. Do not keep vehicles, equipment, or materials related to this permit within the highway ROW limits except those items that are actively being used in the work operation.
17. Perform all permitted work without obstructing or closing any part of any travel lane or fully closing any road unless authorized by WisDOT.
18. Derive no direct access to install, maintain, or repair the connection from a freeway travel lane, shoulder, or from any interchange ramp unless authorized by WisDOT in this permit. If access is needed due to an emergency, immediately contact the Wisconsin State Patrol and WisDOT Region Office listed on this permit. **The use of freeway median crossovers to make U-turns or obtain highway access is prohibited and subject to citation by law enforcement.**
19. Any disturbance to, operation within, or use of a highway median **is prohibited** unless authorized by WisDOT in this permit.
20. Coordinate the permitted work and in no case interfere with any ongoing highway improvement project.
21. Under Wis. Stat. s. [347.26\(7\)](#), flashing **green** warning lamps may be used **only** by WisDOT or county or municipal highway department vehicles when working on a highway.

(Note: Once a permit is issued, the applicant become the permittee)

CONSTRUCTION

22. **Notify the WisDOT representative listed on this permit 3 days before starting any work and call Diggers' Hotline 811 or (800) 242-8511.**
23. Determine the locations of any existing facilities in the area affected by the permitted work and protect or take actions needed to protect them from any damage. All notifications to facility owners, including but not limited to utilities, are the permittee's responsibility.
24. Always keep a complete copy of the permit (which may be electronic) at the job site when the permitted work is ongoing. If applicable, also keep a copy with a project manager or supervisor familiar with the permit and all of its details and requirements.
25. Construction methods shall meet the requirements of this permit and be performed in accordance with methods and procedures set forth in the current edition of WisDOT's [Standard Specifications for Highway and Structure Construction](#).
26. Install the connection in the specified permit location. Upon discovery of any error in placement or upon WisDOT order, move any part of the connection to the correct location. Any connection part located other than as specified in this permit exists at permittee's sole risk. Accordingly, if the same is undetected or is suffered to remain in variance to the permit, the permittee shall hold the State, its employees, agents, and officers harmless and free of any cost, claim or liability associated with any accidental damage to such facility that may result from a highway construction, maintenance, traffic control, or ROW management project or function.
27. The permittee may be required to excavate part of the ditch bottom or backslope to properly install a culvert endwall. Direct questions about this work to the WisDOT Region office that issued this permit.
28. Do not at any time open any greater length of trench than necessary to maintain essential work progress. Use temporary sheeting, shoring, or trench boxes as needed to prevent cave-ins.
29. Comply with applicable laws, rules, policies, and regulations when acting under this permit especially when within tribal or federal lands. Provide documentation as needed when on WisDOT ROW to prove compliance or coordination with the following agencies:
 - Wisconsin Historical Society to avoid or mitigate any potential cultural resource (archeological, historical, burial site, etc.) impacts per Wis. Stat. s. [44.40](#).
 - Department of Natural Resources to avoid or mitigate any potential stormwater runoff, site erosion, wetland, waterway, and endangered or threatened species impacts.
30. Comply with all applicable regulations and codes, including, but not limited to, the U.S. Department of Labor, Occupational Safety and Health Administration, [29 CFR Part 1926](#) for construction safety precautions and operations.

EROSION CONTROL

31. Implement erosion control best management practices (BMPs) prior to and during work operations pursuant to Wis. Admin. Code [Ch. NR 151](#) and any applicable municipal or county ordinances. Provide copies of any required Department of Natural Resources, municipal, or county construction permits. Provide and maintain erosion control BMPs to protect all restored areas upon completion of the permitted work and until replacement vegetation achieves sustained growth. Remove all sediment or material site runoff deposited onto WisDOT ROW and stabilize the area within 24 hours of the release. Immediately clean all sediment or materials deposited onto highway travel lanes or shoulders. Clean downstream ditches, culverts, and storm sewers to ensure positive flow prior to finalizing the work. Remove temporary erosion control BMPs following work completion.

AFTER CONSTRUCTION

32. Send electronic notice to the WisDOT representative who approved this permit **within 10 calendar days** of completing the work including all restoration. Notice may also be sent via telephone or regular mail.
33. Cure faults related to work or facilities under this permit that, in WisDOT's opinion, obstruct highway drainage or in any other manner adversely affect highway maintenance or operation, and restore the ROW as directed by WisDOT and to its satisfaction.
34. Alter the permitted connection as may be ordered by WisDOT to facilitate highway improvements, safety, operations, or maintenance. Accept all costs of constructing, maintaining, altering, temporarily moving, or relocating the permitted connection.

RESTORATION

35. **All restoration work** shall meet qualities, grades, compactions, and conditions of this permit and be performed in accordance with the methods and procedures set forth in the current edition of WisDOT's [Standard Specifications for Highway and Structure Construction](#). **For temporary permits, complete all restoration prior to the expiration date.**
36. Promptly restore to WisDOT's satisfaction and at least pre-existing conditions any highway facility, surface, shoulder, curb, gutter, sign, sidewalk, driveway, gravel base, ballast, ditch, vegetation, drainage appurtenance, guardrail, electric conduit/cable, or property of any type or other ROW element disturbed by any work under this permit.
37. Sawcut all pavement full-depth when open cutting. Restore concrete pavement in conjunction with WisDOT standard detail drawing [13C9](#). Remove and restore concrete pavement to the nearest joint for full lane width or provide a detailed joint plan for review and approval. The minimum patch dimension is 6' by the full lane or shoulder width. High early strength concrete may be specified if needed. For concrete pavement repair guidance, see [FDM 14-25-10, Exhibit 10.1](#). The minimum asphalt patch dimension is 6' by the distance to the nearest joint or seam. Only use hot mix asphalt.
38. Backfill all excavations permitted within highway pavement or shoulder areas with suitable granular material, placed in lifts or layers 12" or less each in depth, and mechanically compact to meet appropriate density. Do not use water jetting to perform mechanical compaction. Repair to WisDOT's satisfaction any subsequent heaving, settling, or other defects or faults attributable to the permitted work.
39. Adjust manhole covers, shut-off and regulator valves, and like facilities to the level of the immediately adjacent grades.
40. Restore any turfed ROW area disturbed under this permit with fine-graded topsoil having a depth of not less than 4" and reseeded to perennial grass or sodded to WisDOT's satisfaction. Water the planted seed or sod until fully established.
41. Construct smooth and finished slopes at all locations where regraded portions of the highway ROW meet the lands of adjacent property owners. Do not trespass on adjacent property owner's lands.
42. Dispose of any brush, trash, or waste materials resulting from the permitted work off the ROW in accordance with applicable solid waste disposal regulations. Dumping or littering **is prohibited**.
43. WisDOT may notify permittee that restoration must be completed by a specific time if it is not done voluntarily without delay. If the permittee fails to satisfactorily complete the restoration by the specific time, WisDOT may arrange for the restoration to be completed and bill permittee accordingly. If this occurs, the permittee shall pay for all restoration costs, which may be tripled under Wis. Stat. s. [86.02](#).

SUPPLEMENTAL PERMIT PROVISIONS (#44-67)*The permittee shall abide by the following checked provisions:***STATE HIGHWAY DETOUR**

- ☐ 44. Complete a permit application form to detour state highway traffic ([DT1479](#)). This permit shall only be in effect if WisDOT approves the matching DT1479 permit.

WORK RESTRICTIONS

- ☒ 45. Daily, holiday, or seasonal work restrictions apply to the permitted work as detailed in the special permit provisions. Review these restrictions with the WisDOT Region Office identified in this permit.

NOTIFICATIONS

- ☒ 46. Contact the WisDOT Region office identified on this permit to arrange for a WisDOT representative to inspect the work site. Perform no work under this permit prior to his/her arrival.
- ☒ 47. Contact the WisDOT Region office identified on this permit prior to completing the permitted work to arrange for an inspection by a WisDOT representative before the permittee's contractor or work crew leaves the site.
- ☐ 48. Call WisDOT's Traffic Management Center (TMC) / - on a weekly basis or as otherwise determined by the TMC before working on any freeway. The TMC may place restrictions on work times and lane/shoulder closures based upon various special events, oversize freight movements, or daily peak travel times.

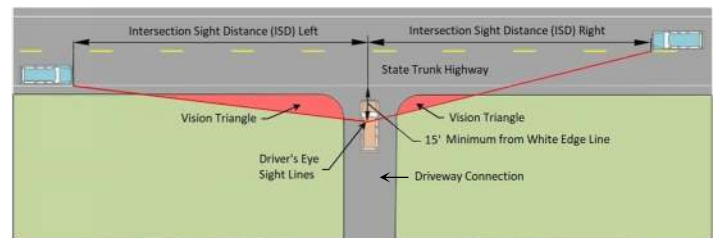
(Note: Once a permit is issued, the applicant become the permittee)

TREE & VEGETATION MANAGEMENT

- ☐ 49. Plant trees or vegetation only in the locations and with the species as detailed on the plans included and approved with this permit, or as WisDOT specifies in the field.
- ☐ 50. Replace trees or vegetation removed with the species and in the manner required in any special provisions of this permit.
- ☐ 51. Maintain all plantings according to the special permit provisions.
- ☐ 52. Do not place any sign or marker identifying the plantings within the highway ROW.
- ☐ 53. WisDOT accepts no responsibility for loss occurring to plantings. Be fully aware that plantings are subject to:
- Thinning or mortality
 - Normal hazards from maintenance operations, snow control, and public utility installation, maintenance, or alteration
 - Trimming or removal when the plantings cause sight distance restrictions or hazardous snow/ice conditions on the highway
 - Destruction when highway reconstruction is done
 - Partial or complete abandonment or obliteration, or return to private ownership, if future highway relocations are made
 - Removal by government authorities, including WisDOT, under Wis. Stat. s. [86.03\(3\)\(a\)](#)
- ☐ 54. Do not cut, trim, or damage trees or vegetation to facilitate the permitted connection's construction or maintenance except as authorized by the owner of such tree or vegetation. (Wis. Stat. s. [86.03](#)). Cleanly cut the exposed ends of all tree roots found during excavation with suitable pruning tools immediately after exposure. Comply with all applicable laws, regulations, and local ordinances (even those stricter than WisDOT specifications) governing tree sale, transport, cutting, or pruning and with [ANSI A300](#), which is the generally accepted industry standard for tree care practices.
- ☐ 55. Trim only trees or vegetation necessary to provide safe clearances or by special provisions. Do not damage non-target trees or vegetation. Do not clear-cut trees or vegetation.
- ☐ 56. Survey trees or vegetation to be removed and inspect jointly with a WisDOT representative prior to starting any highway ROW work.
- ☐ 57. Do not cut or trim oak trees between April 15 and October 15 to prevent Oak Wilt Disease from spreading unless a thick coat of asphalt base tree paint is applied immediately after **any** cut, trimming wound, or abrasion made between those dates.
- ☐ 58. Remove each stump in the area where cutting is permitted, including stumps created by windfalls or prior cutting, by cutting the stump flush with ground level or removing it with a stump grinding operation. The permittee shall be responsible for any damages to mowing equipment or any vehicle caused by any stump not being cut in accordance with this requirement.
- ☐ 59. Treat all deciduous tree stumps with an herbicide approved for use to prevent future sprouting. Do not treat evergreen tree stumps.
- ☐ 60. Dispose of all cut, trimmed, or sprayed trees, logs, branches, stumps, and other vegetation in the following manner(s). If more than one box is checked, verify if related special permit provisions have been added. Off-site means off the ROW. In all cases, avoid disturbance to any manicured lawn.
- ☐ Cut trees, logs, or trimmed branches may be chipped and used for mulch on the ROW in a layer not exceeding 3" and in a way that does not interfere with highway drainage
 - ☐ Sprayed or basally treated trees and vegetation shall be cut and hauled off-site to a proper location
 - ☐ Permittee may haul materials to a specific location off-site upon receiving the landowner's permission
 - ☐ Permittee may keep the materials after hauling them off-site
 - ☐ Other adjacent landowners may keep the materials off-site
 - ☐ Haul only the materials that have salvage value to the nearest county highway department or other designated site for public sale or distribution by WisDOT
- ☐ 61. Promptly restore all natural highway safety features, including but not limited to, living snow fence and headlamp screens.

VISION TRIANGLES

- ☐ 62. In addition to the required intersection sight distance (ISD) for the connection, maintain vision triangles to allow drivers approaching or stopped at the connection to safely perform the necessary maneuvers to navigate the connection. This means eliminating all objects that may obstruct driver views. For side road connections, maintain vision triangles in accordance with WisDOT's Facilities Development Manual Chapter [11-10-5](#), section 5.1.4.3. For driveway connections, unless otherwise specified in provision #62, maintain vision triangles as depicted in the shaded areas of the diagram below using an ISD Left of ____ and ISD Right of _____. On land within the vision triangles, (1) do not erect buildings, signs, billboards, fences, or anything exceeding 3', and (2) do not plant shrubs, trees, hedges, grasses, flowers, and other vegetation that may grow to a height exceeding 3', or continuously maintain them to not exceed a height of 3'.
- ☒ 63. Follow provision #62 except maintain vision triangles as depicted in shaded areas of the diagram below measured at ____ from the white edge line instead of the minimum 15' and using an ISD Left of 90' and ISD Right of 90'.

**URBAN CONNECTIONS**

- ☐ 64. Completely remove existing curb and gutter for construction of the connection. Such removal shall be to the nearest construction joint and saw cut to a minimum length of 3' for remnant curb. Join all new concrete to existing concrete with No. 4 tie bars.
- ☐ 65. Construct the new concrete curb and gutter such that its gutter pan bottom matches the gutter pan bottom of the existing curb and gutter to allow for the drilling of tie bars into the existing concrete pavement and to allow for an asphaltic overlay if the adjacent curb has been previously overlaid with asphalt.
- ☐ 66. Saw cut the existing asphaltic pavement at a sufficient distance to allow for concrete curb and gutter removal and prevent damage of the remaining asphaltic pavement. After sufficient cure time of the new concrete curb and gutter and driveway apron, overlay the curb flange with asphaltic pavement to match existing.

CONSTRUCTION INSPECTION

- ☒ 67. Provide qualified construction engineering inspectors on-site at all times during the project. Provide the name(s) and cellular phone number(s) for the inspectors to WisDOT before any construction begins. The inspector(s) shall ensure the work is being performed in conformance with the plans and WisDOT specifications, which includes items such as work zone traffic control and erosion control. The inspector(s) shall have the authority and responsibility to stop work operations and notify WisDOT when the permit plan and WisDOT specifications are not being followed.

SPECIAL PERMIT PROVISIONS (#68-__)

The permittee shall also abide by the following provisions:

- See attached Supplemental Provisions
- Please contact WisDOT– Stefan Ciobanu 608.516.6832 10-days prior to work within the Right of Way
- Follow attached Supplemental Provisions.
- Keep STH system clean from dirt and debris caused by construction and construction traffic.
- Provide a schedule.
- If closing a lane or shoulder, provide the following advance notification to the Wisconsin Lane Closure System. (<https://transportal.cee.wisc.edu/closures/>)
- Temporary driveway to be returned to previous vegetated area after construction completed.

SUPPLEMENTAL PROVISIONS

USH12/18 and STH134, Village of Cambridge, Dane Co.

Pursuant to Wisconsin Statutes and once approved by WisDOT, this permit allows performance of the specific work described over which WisDOT has permit authority. ***The permittee shall abide by these general provisions, and any supplemental and/or special provisions.*** (ROW = right-of-way)

- Please contact Stefan Ciobanu (WisDOT) 608.516.6832 10 days prior to work within the Right of Way.
- Provide a schedule prior to work on ROW.
- Provide the WDNR and/or Municipal/County Construction Permit and CARP-C permit.
- Follow Plans submitted July 6, 2023.
- Remove and vegetate the temporary driveway and driveway on Parcel 061201399111
- **WORK RESTRICTIONS:** Daily, holiday and/or seasonal work restrictions apply to the permitted work as detailed:
 - **Daily if issues arise, may require Daily Restrictions.**
 - From noon Friday, June 30, 2023 to 6:00 AM Wednesday, July 5, 2023, for Independence Day;
 - From noon Friday, September 1, 2023 to 6:00 AM Tuesday, September 5, 2023, for Labor Day
 - From noon Wednesday, November 22, 2023 to 6:00 AM Monday, November 27, 2023, for Thanksgiving
- **Traffic Management:**
 - FINAL Traffic Control Plan (ID9007) completed 7-6-2023.
 - Signage should follow Wisconsin Manual on Uniform Traffic Control Devices.
 - If closing a lane or shoulder, Provide the following advance notification to the engineer for incorporation into the Wisconsin Lane Closure System (LCS). (<https://transportal.cee.wisc.edu/closures/>)
 - Any highway open to traffic that has an aggregate surface must be repaved with HMA within 72 hours or by the end of the week whichever occurs first.
 - Flaggers, if used, must be certified.
 - Do not store equipment or materials within 10' of traffic.
 - Any drop-off greater than 2" needs to be protected by a 3:1 slope or temporary concrete barrier is required.

Wisconsin Lane Closure System Advance Notification:

TABLE 108-1 CLOSURE TYPE AND REQUIRED MINIMUM ADVANCE NOTIFICATION

Closure type with height, weight, or width restrictions (available width, all lanes in one direction < 16')	MINIMUM NOTIFICATION
Lane and shoulder closures	7 calendar days
Full roadway closures	7 calendar days
Detours	7 calendar days
Closure type without height, weight, or width restrictions (available width, all lanes in one direction ≥ 16')	MINIMUM NOTIFICATION
Lane and shoulder closures	3 business days
Modifying all closure types	3 business days

- **Utilities:** Avoid or move utilities that may be in the way of the work in right of way.
- **Erosion Control:**
 - Do not store any materials within the State ROW.
 - Implement erosion control best management practices (BMPs) prior to and at all times during work operations. Provide and maintain erosion control BMPs to protect all restored areas upon completion of the permitted work until the replacement vegetation achieves sustained growth.
 - Any sediment that is deposited from the site onto WisDOT facilities needs to be removed and the area stabilized within 24 hours of the release.
 - Any sediment or materials tracked onto state right of way needs to be cleaned within that workday.
 - The applicant will assure that the ditches/storm sewer (down-stream) are cleaned and positively flow, prior to finalizing the construction.
 - Temporary erosion control best management practices need to be removed and the area restored.
 - After temporary use is complete, the area will be restored to pre-construction conditions in accordance with applicable parts of [WisDOT's Standard Specifications for Highway and Structure Construction](#), current edition.
- **The final restoration work needs review prior to acceptance.**

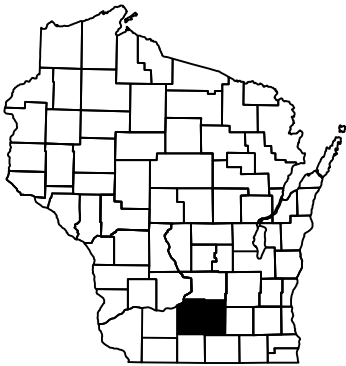
PROJECT ID:
WITH: 1701341

COUNTY:
DANE

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details
Section No.	3	Estimate of Quantities
Section No.	3	Miscellaneous Quantities
Section No.	4	Right of Way Plat
Section No.	5	Plan and Profile
Section No.	6	Standard Detail Drawings
Section No.	7	Sign Plates
Section No.	8	Structure Plans
Section No.	9	Computer Earthwork Data
Section No.	9	Cross Sections

TOTAL SHEETS =



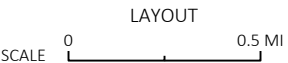
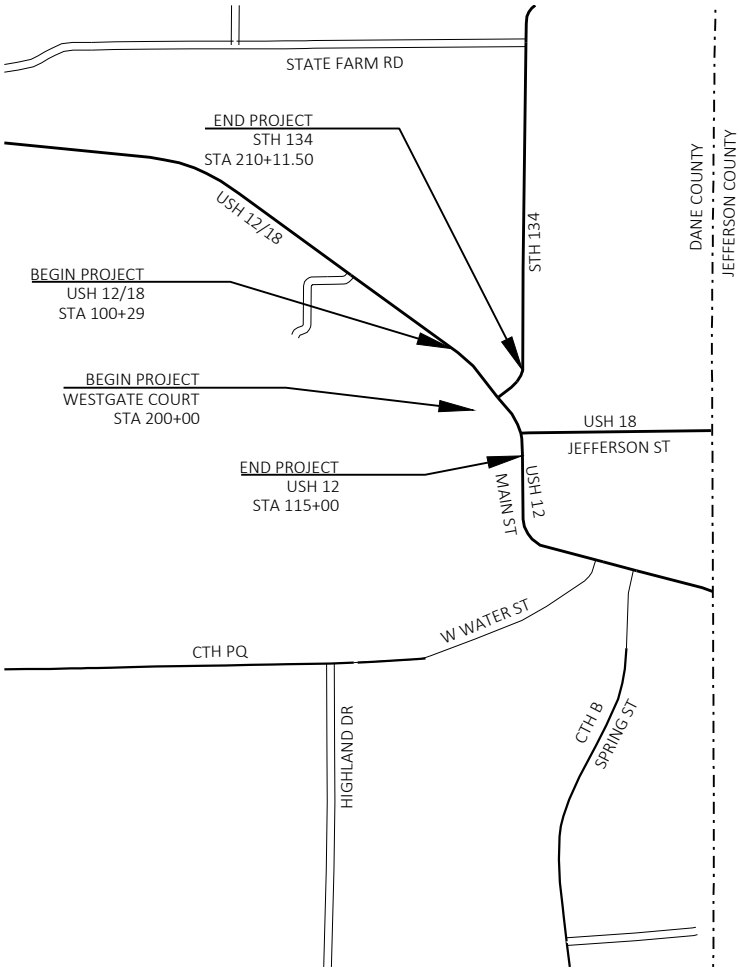
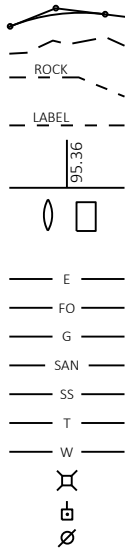
CONVENTIONAL SYMBOLS

PLAN

CORPORATE LIMITS	
PROPERTY LINE	
LOT LINE	
LIMITED HIGHWAY EASEMENT	
EXISTING RIGHT OF WAY	
PROPOSED OR NEW R/W LINE	
SLOPE INTERCEPT	
REFERENCE LINE	
EXISTING CULVERT	
PROPOSED CULVERT (Box or Pipe)	
COMBUSTIBLE FLUIDS	
MARSH AREA	
WOODED OR SHRUB AREA	

PROFILE

GRADE LINE	
ORIGINAL GROUND	
MARSH OR ROCK PROFILE (To be noted as such)	
SPECIAL DITCH	
GRADE ELEVATION	
CULVERT (Profile View)	
UTILITIES	
ELECTRIC	
FIBER OPTIC	
GAS	
SANITARY SEWER	
STORM SEWER	
TELEPHONE	
WATER	
UTILITY PEDESTAL	
POWER POLE	
TELEPHONE POLE	



TOTAL NET LENGTH OF CENTERLINE =

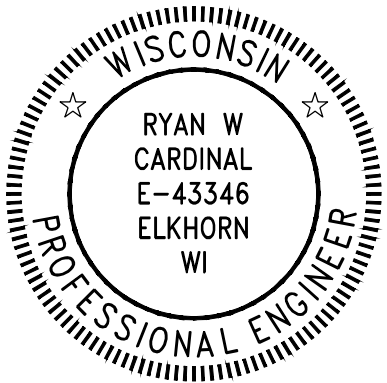
HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), DANE COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES.

ELEVATIONS ARE REFERENCED TO NAVD 88 (2011). GPS DERIVED ELEVATIONS ARE BASED ON GEOID CONTINENTAL US_NGS 2012B

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
PLAN OF PROPOSED IMPROVEMENT
US HIGHWAY 12/18
STATE TRUNK HIGHWAY 134 AND WESTGATE COURT INTERSECTION
USH 12/18
DANE COUNTY

STATE PROJECT NUMBER
1701341

PROJECT ID



ORIGINAL PLANS PREPARED BY
CARDINAL ENGINEERING LLC



DATE: _____
(Professional Engineer Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY	CARDINAL ENGINEERING
Surveyor	CARDINAL / TADI
Designer	PROJECT MANAGER
Project Manager	REGIONAL EXAMINER
Regional Examiner	REGIONAL SUPERVISOR
Regional Supervisor	

APPROVED FOR THE DEPARTMENT
DATE: _____
(Signature)

E

GENERAL NOTES

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK. ANY UTILITY WHICH IS NOT A MEMBER OF THE DIGGERS HOTLINE MUST BE CONTACTED SEPARATELY.

A VERTICAL SAW CUT SHALL BE MADE THROUGH EXISTING DRIVEWAYS, SIDEWALKS, AND PAVEMENTS AT THE REMOVAL LIMITS.

SAW CUT LOCATIONS SHOWN ON THE PLANS ARE SUBJECT TO ADJUSTMENT BY THE ENGINEER IN THE FIELD.

NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER.

TOPSOIL, FERTILIZER, SEED AND MULCH OR EROSION MAT AS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER SHALL BE PLACED ON ALL DISTURBED AREAS, EXCLUSIVE OF THE AREA OCCUPIED BY THE NEW PAVEMENTS, SIDEWALKS, ENTRANCES, AND RELATED STRUCTURES.

EROSION CONTROL ITEMS SHOWN ARE APPROXIMATE, THE EXACT LOCATION SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL SUCH TIME AS THE ENGINEER DETERMINES THAT THE MEASURE IS NO LONGER NECESSARY. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING EROSION CONTROL MEASURE AS DIRECTED BY THE ENGINEER.

HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON 112 LB/SY/IN

TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

INLETS ELEVATIONS ARE SHOWN THE THE FLOW LINE UNLESS NOTED OTHERWISE.

CURB AND GUTTER RADII ARE MEASURED TO THE FLANGE LINE, UNLESS NOTED OTHERWISE.

CONTRACTOR IS RESPONSIBLE FOR RESHAPING AND FINISHING ANY PREVIOUSLY GRASSED AREAS WHICH ARE DISTURBED BY THEIR OPERATION OUTSIDE THE NORMAL CONSTRUCTION LIMITS.

CONTRACTOR IS RESPONSIBLE AND MUST FOLLOW THE WISDOT CURB RAMP COMPLIANCE REPORTING INSTRUCTIONS TO VERIFY THE CURB RAMPS HAVE BEEN BUILT TO CURRENT ADA STANDARDS.

ABBREVIATIONS

AE, AEW	APRON ENDWALL
AGG	AGGREGATE
ASPH	ASPHALT
BAD	BASE AGGREGATE DENSE
BM	BENCHMARK
CABC	CRUSHED AGGREGATE BASE COURSE
C/L, CL	CENTER LINE
CONC	CONCRETE
CMP	CORRUGATED METAL PIPE
EB	EASTBOUND
EL, ELV	ELEVATION
EXC	EXCAVATION
F/L, FL	FLOW LINE
HT	HEIGHT
INTER	INTERSECTION
INV	INVERT
L	LENGTH OF CURVE
NB	NORTHBOUND
NE	NORTHEAST
NW	NORTHWEST
PAVT	PAVEMENT
PC	POINT OF CURV
PCC	POINT OF COMPOUND CURV
PI	POINT OF INTERSECTION
PL	PROPERTY LINE
PT	POINT OF TANGENT
R	RADIUS OF CURVE
R/L, RL	REFERENCE LINE
R/W	RIGHT OF WAY
RCP	REINFORCED CONCRETE PIPE
REQ'D	REQUIRED
SALV	SALVAGED
SDD	STANDARD DETAIL DRAWINGS
SE	SOUTHEAST
SB	SOUTHBOUND
SW	SOUTHWEST
SHLD	SHOULDER
STH	STATE TRUNK HIGHWAY
T	TANGENT LINE
TEMP	TEMPORARY
TYP	TYPICAL
USH	US HIGHWAY
VAR	VARIABLE
WB	WESTBOUND

CONSTRUCTION NOTES

THIS PROJECT REQUIRES A WISCONSIN DNR NOI PERMIT. THE LANDOWNER OR THEIR AUTHORIZED AGENT MUST POST PLACARD AND SHALL KEEP APPROVED PLAN, PERMIT, AND EROSION CONTROL INSPECTION RECORDS ONSITE AT ALL TIMES UNTIL THE SITE IS STABILIZED AND NOTICE OF TERMINATION FILED.

CHANGES TO THIS PLAN MUST BE APPROVED BY THE DESIGN ENGINEER, WISCONSIN DOT, WISCONSIN DNR, VILLAGE OF CAMBRIDGE, AND OTHER JURISDICTIONAL AUTHORITIES PRIOR TO IMPLEMENTATION.

AT A MINIMUM, CONSTRUCTION SITE EROSION CONTROL INSPECTIONS SHALL BE CONDUCTED WEEKLY, AND WITHIN 24 HOURS OF AFTER A PRECIPITATION EVENT OF 0.5 INCH OR GREATER. A PRECIPITATION EVENT MAY BE CONSIDERED TO BE THE TOTAL AMOUNT OF PRECIPITATION IN ANY CONTINUOUS 24-HOUR PERIOD. CONTINUE THROUGH STABILIZATION.

MONITOR USH 12/18 FOR OFFSITE TRACKING FROM EQUIPMENT LEAVING THE PROJECT SITE AND TRACKING ON-ROAD. AT A MINIMUM, SWEEP PAVEMENTS DAILY AND AS NEEDED. SPECIFICALLY MONITOR TRACKING PAD EFFECTIVENESS AND OFFSITE TRACKING EACH WORKING DAY.

MAINTAIN INSPECTION RECORDS WITH FORM 3400-017, CURRENT REVISION, OR DOCUMENT WITH EQUIVALENT INFORMATION AS PER NR 216.48(4)(c). RECORDS SHALL BE KEPT ONSITE AND AVAILABLE UPON REQUEST.

ALL EQUIPMENT USED FOR THE PROJECT SHALL BE DE-CONTAMINATED FOR INVASIVE AND EXOTIC VIRUSES AND SPECIES PRIOR TO AND AFTER USE. FOLLOW MOST RECENT WDNR APPROVED WASHING AND DISINFECTION PROTOCOLS AND WDNR APPROVED BEST MANAGEMENT PRACTICES.

WHEN POSSIBLE: PRESERVE EXISTING VEGETATION (ESPECIALLY ADJACENT TO SURFACE WATERS), MINIMIZE LAND-DISTURBING CONSTRUCTION ACTIVITY ON SLOPES OF 20% OR MORE, MINIMIZE SOIL COMPACTION, AND PRESERVE TOPSOIL.

IN THE EVENT DEWATERING BECOMES NECESSARY, NOTIFY ENGINEER IMMEDIATELY, AND OBTAIN APPROPRIATE PERMITS PRIOR TO CONTINUING WORK.

IMMEDIATELY STABILIZE STOCKPILES AND SURROUND STOCKPILES AS NEEDED WITH SILT FENCE OR OTHER PERIMETER CONTROL IF STOCKPILES WILL REMAIN INACTIVE FOR 7 DAYS OR LONGER.

IMMEDIATELY STABILIZE ALL DISTURBED AREAS THAT WILL REMAIN INACTIVE FOR 14 DAYS OR LONGER. BETWEEN SEPTEMBER 15 AND OCTOBER 15: STABILIZE WITH MULCH, TACKIFIER, AND A PERENNIAL SEED WITH WINTER WHEAT, ANNUAL OATS, OR ANNUAL RYE, AS APPROPRIATE FOR REGION AND SOIL TYPE. OCTOBER 15 THROUGH COLD WEATHER: STABILIZE WITH A POLYMER AND DORMANT SEED MIX, AS APPROPRIATE FOR REGION AND SOIL TYPE.

STABILIZE AREAS OF FINAL GRADING WITHIN 7 DAYS OF REACHING FINAL GRADE. MONITOR FOR ONE YEAR AFTER PROJECT COMPLETION. DURING MONITORING PERIOD, THE GRADING SITE SHALL BE INSPECTED REGULARLY, AND ANY AREAS REQUIRING ADDITIONAL STABILIZATION OR REVEGETATION SHALL BE ADDRESSED TO ENSURE FINAL STABILIZATION.

EROSION CONTROL MEASURES SHALL BE REMOVED ONCE THE AREAS THEY SERVE HAVE ESTABLISHED VEGETATIVE COVER, OR 70% GROWTH.

ONE YEAR AFTER PROJECT COMPLETION, A REPORT AND PHOTOGRAPHS SHALL BE SUBMITTED TO THE WDNR TO DEMONSTRATE THAT THE GRADING SITE IS STABILIZED. IF AFTER ONE YEAR, FINAL STABILIZATION HAS NOT BEEN ACHIEVED OR MAINTAINED, THE WDNR MAY REQUIRE THE LANDOWNER TO SUBMIT A REVISED VEGETATION PLAN TO THE WDNR, AND IMPLEMENT THE REVISED PLAN.

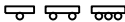
SWEEP/CLEAN UP ALL SEDIMENT/TRASH THAT MOVES OFF-SITE DUE TO CONSTRUCTION ACTIVITY OR STORM EVENTS BEFORE THE END OF THE SAME WORKDAY OR AS DIRECTED BY THE VILLAGE OF CAMBRIDGE AND/OR WISCONSIN DOT. SEPARATE SWEEPED MATERIALS (SOILS AND TRASH) AND DISPOSE OF APPROPRIATELY.

PROPERLY DISPOSE OF ALL WASTE AND UNUSED BUILDING MATERIALS (INCLUDING GARBAGE, DEBRIS, CLEANING WASTES, OR OTHER CONSTRUCTION MATERIALS) AND DO NOT ALLOW THESE MATERIALS TO BE CARRIED BY RUNOFF INTO RECEIVING CHANNEL.



Dial 811 or (800)242-8511

www.DiggersHotline.com

SYMBOL LEGEND		LINE LEGEND	
	INTERIOR AREA OF DELINEATED WETLAND		PROPERTY LINE/RIGHT-OF-WAY LINE
	EXISTING STORM INLET		PLSS SECTION QUARTER LINE
	EXISTING MANHOLE		PLSS SECTION SIXTEENTH LINE
	EXISTING VALVE		DELINEATED WETLAND BOUNDARY
	EXISTING SURVEY MONUMENT		PROPOSED SILT FENCE
	EXISTING UTILITY PEDESTAL		EXISTING OVERHEAD UTILITY
	EXISTING OVERHEAD LIGHT AND POLE		EXISTING UNDERGROUND GAS
	EXISTING GUY POLE/WIRE		EXISTING UNDERGROUND COMMUNICATIONS
	EXISTING UTILITY POLE		EXISTING PAVEMENT EDGE
	EXISTING SINGLE/DOUBLE/TRIPLE POLE SIGN		PROPOSED PAVEMENT EDGE
	PROPOSED SINGLE/DOUBLE/TRIPLE POLE SIGN		EXISTING GRAVEL SHOULDER
	PROPOSED SIGN ON BOTH SIDES OF POLE		PROPOSED GRAVEL SHOULDER
	EXISTING SIGN ON BOTH SIDES OF POLE		EXISTING CURB AND GUTTER
	EASEMENT		PROPOSED CURB AND GUTTER
	EXISTING FLARED END SECTION		PROPOSED SIDEWALK
	EXISTING CULVERT AND FLARED END SECTION		
	GROUND SURFACE WATER FLOW DIRECTION		
	DITCH CHECK		
	CULVERT INLET CHECK		

DESIGN CONTACT

CARDINAL ENGINEERING LLC
RYAN CARDINAL, PE
1200 LASALLE STREET
LAKE GENEVA, WI 53147
PHONE: 262-757-8776
EMAIL: RYAN@PLANSURVEYENGINEER.COM

DESIGN CONTACT - TRAFFIC SIGNALS

TRAFFIC ANALYSIS & DESIGN, INC.
JEFF FAIT, PE
PO BOX 128
CEDARBURG, WI 53012
PHONE: 1-800-605-3091 EXT. 81
EMAIL: JFAIT@TRAFFIC-AD.COM

POLICE DEPARTMENT

VILLAGE OF CAMBRIDGE
CHAD LAURITSEN, POLICE CHIEF
200 SPRING STREET
CAMBRIDGE, WI 53523
PHONE: 608-423-4328 (NON-EMERGENCY)

FIRE DEPARTMENT

VILLAGE OF CAMBRIDGE
JOE EVANS, FIRE CHIEF
271 WEST MAIN STREET
CAMBRIDGE, WI 53523
PHONE: 608-423-2014 (NON-EMERGENCY)
EMAIL: CAMBRIDGEVFD@GMAIL.COM

WISDOT REGIONAL CONTACT

WIS. DEPARTMENT OF TRANSPORTATION
WENDY BRAUN, PE
2101 WRIGHT ST.
MADISON, WI 53704
PHONE: 608-246-3837
EMAIL: WENDY.BRAUN@DOT.WI.GOV

VILLAGE OF CAMBRIDGE ENGINEER

MSA PROFESSIONAL SERVICES
JOSEPH M. DEYOUNG, PE
1702 PANKRATZ STREET
MADISON, WI 53704
PHONE: 608-242-7779
EMAIL: JDEYOUNG@MSA-PS.COM

UTILITIES - ALLIANT

ALLIANT ENERGY
PHONE: 608-423-4827
UTILITY LOCATE: 608-223-2014

UTILITIES - CHARTER

CHARTER COMMUNICATIONS
UTILITY LOCATE PHONE: 262-446-9821

DEVELOPER

CAMBRIDGE REAL ESTATE VENTURES, LLC
TODD SCHULTZ
1509 N PROSPECT AVE
MILWAUKEE, WI 53202
PHONE: 262-490-0017
EMAIL: TODD1.RTCW@GMAIL.COM

CAMBRIDGE PUBLIC WORKS

VILLAGE OF CAMBRIDGE
TOD LORD
200 SPRING STREET
CAMBRIDGE, WI 53523
PHONE: 608-501-8944
EMAIL: TLORD@CI.CAMBRIDGE.WI.US

UTILITIES - FRONTIER

FRONTIER COMMUNICATIONS
UTILITY LOCATE PHONE: 262-446-9821
ADDRESS
CITY, STATE, ZIP
PHONE:
EMAIL:

DNR LIASON

WISCONSIN DNR
ERIC HEGGELUND
3911 FISH HATCHERY ROAD
FITCHBURG, WI 53711
PHONE: 608-228-7927
EMAIL: ERIC.HEGGELUND@WISCONSIN.GOV

DIGGERSHOTLINE

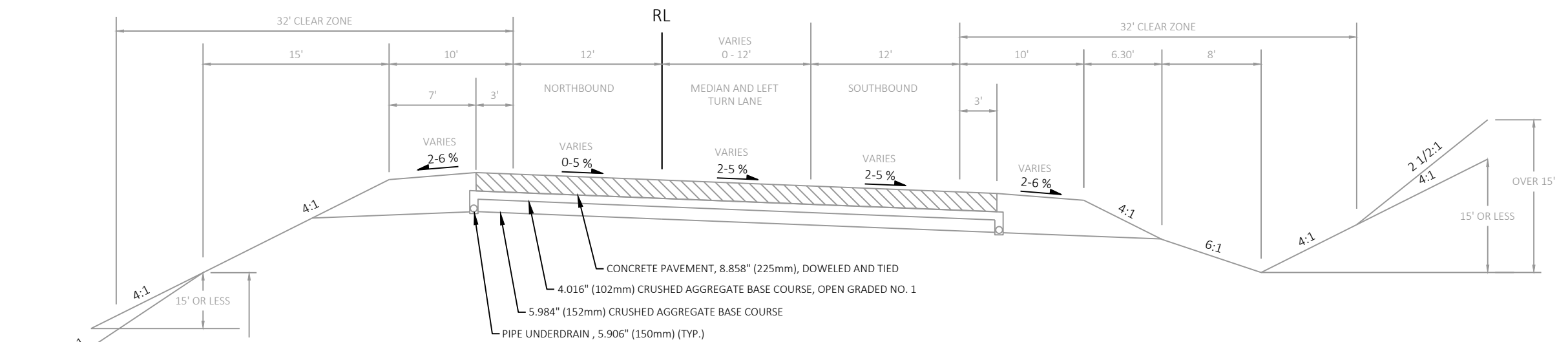
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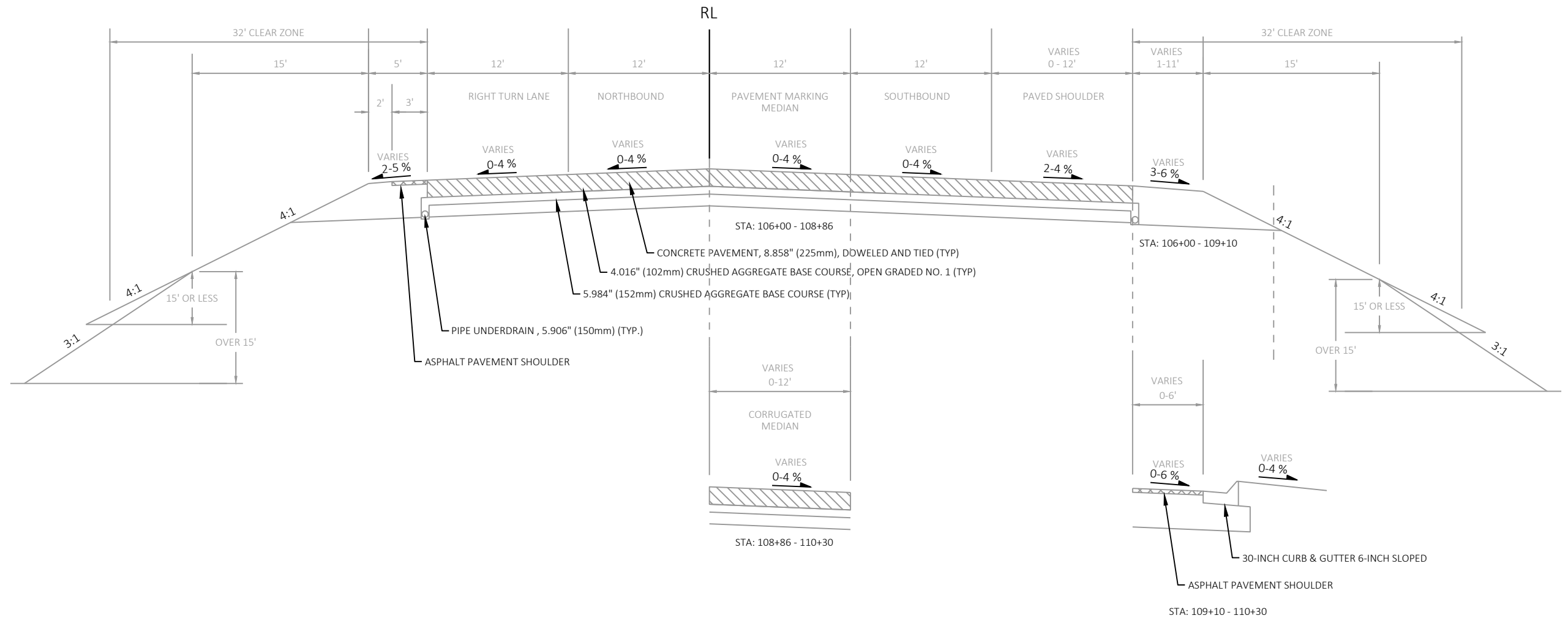




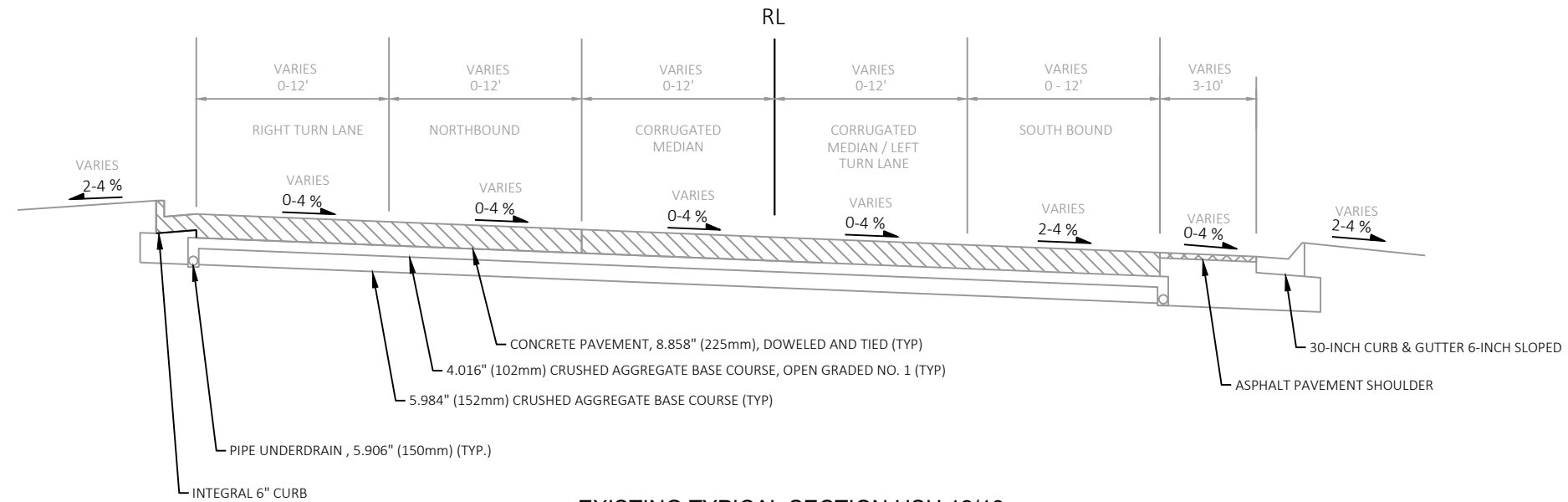
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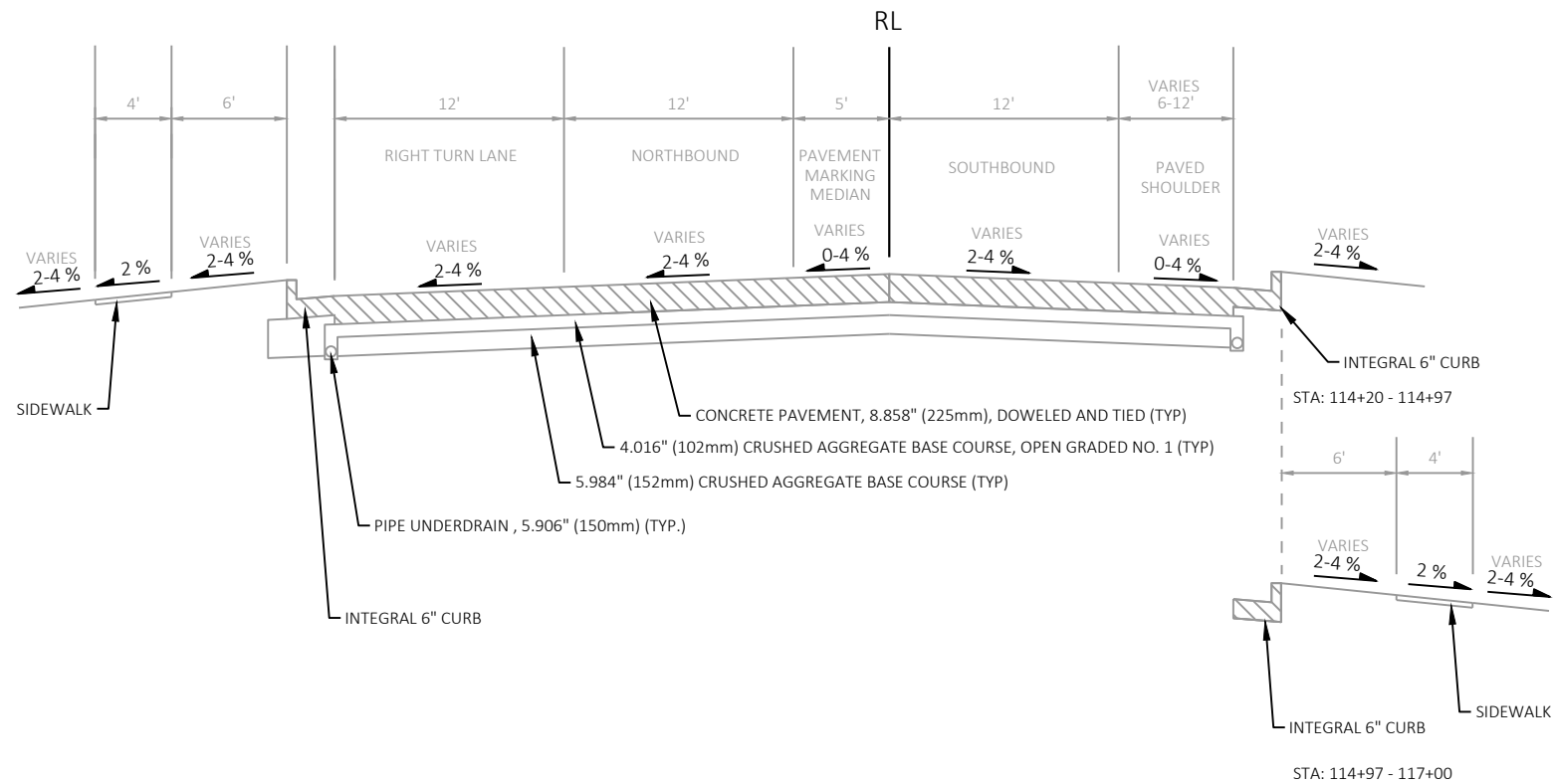
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STA 100+00 - 106+00



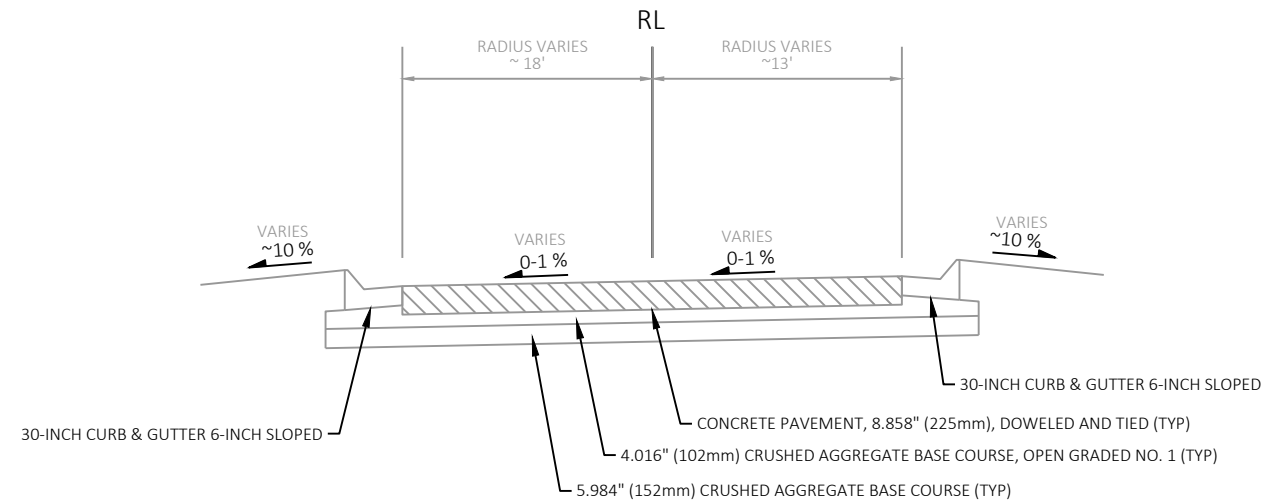
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EXISTING TYPICAL SECTION USH 12/18
STA 110+30 - 114+20

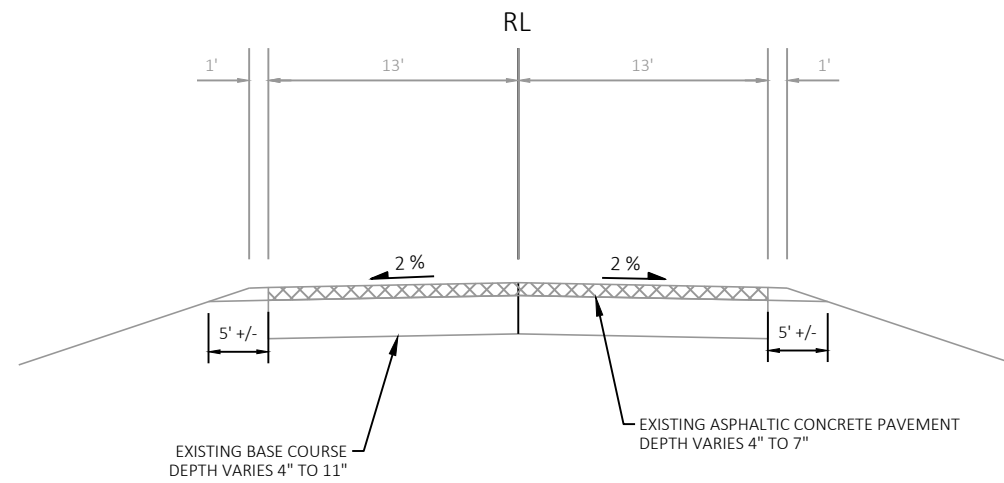


EXISTING TYPICAL SECTION USH 12/18
STA 114+20 - 117+00



EXISTING TYPICAL SECTION STH 134

STA 206+80 - 207+33

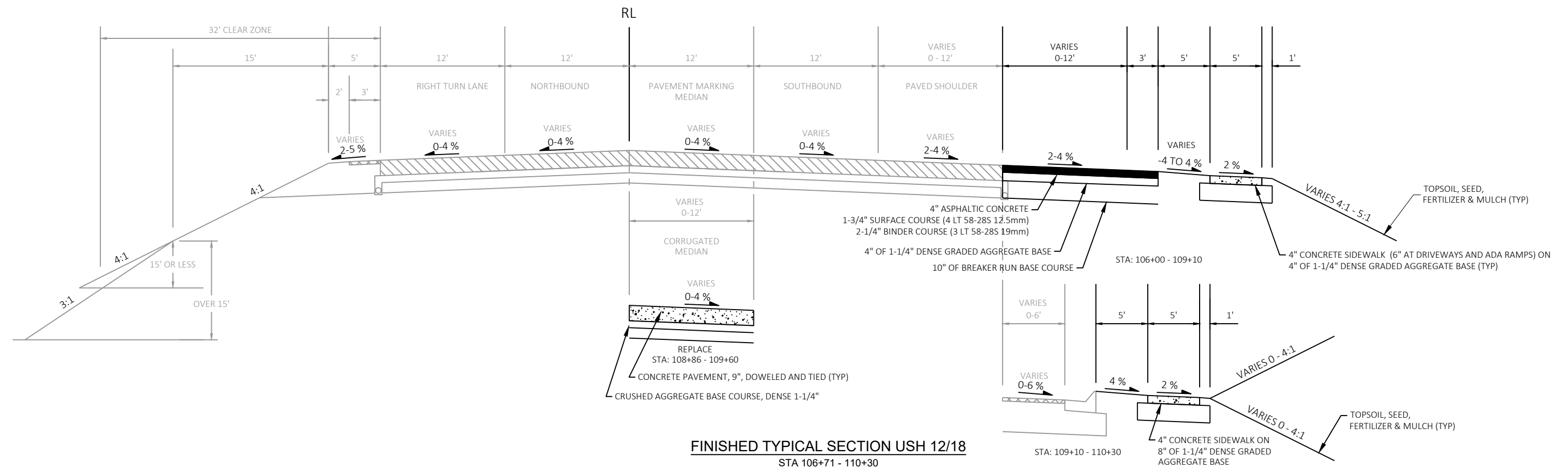
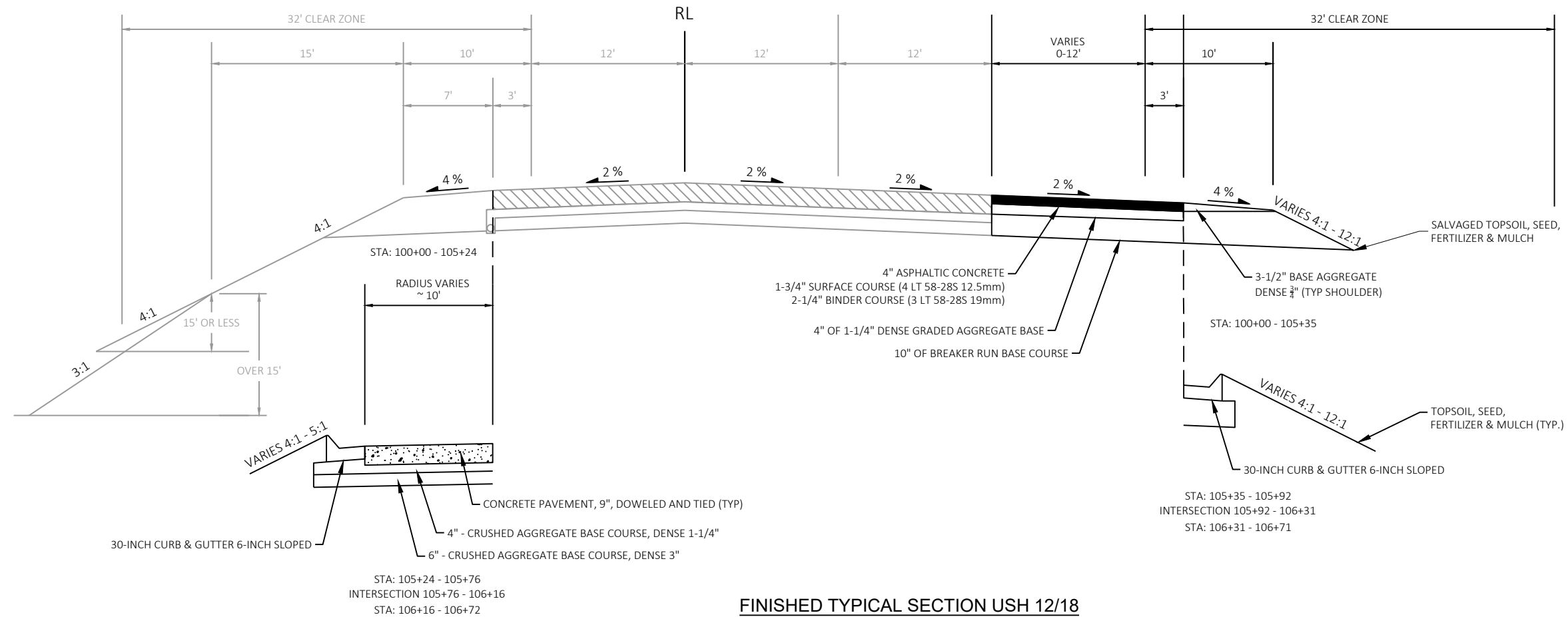


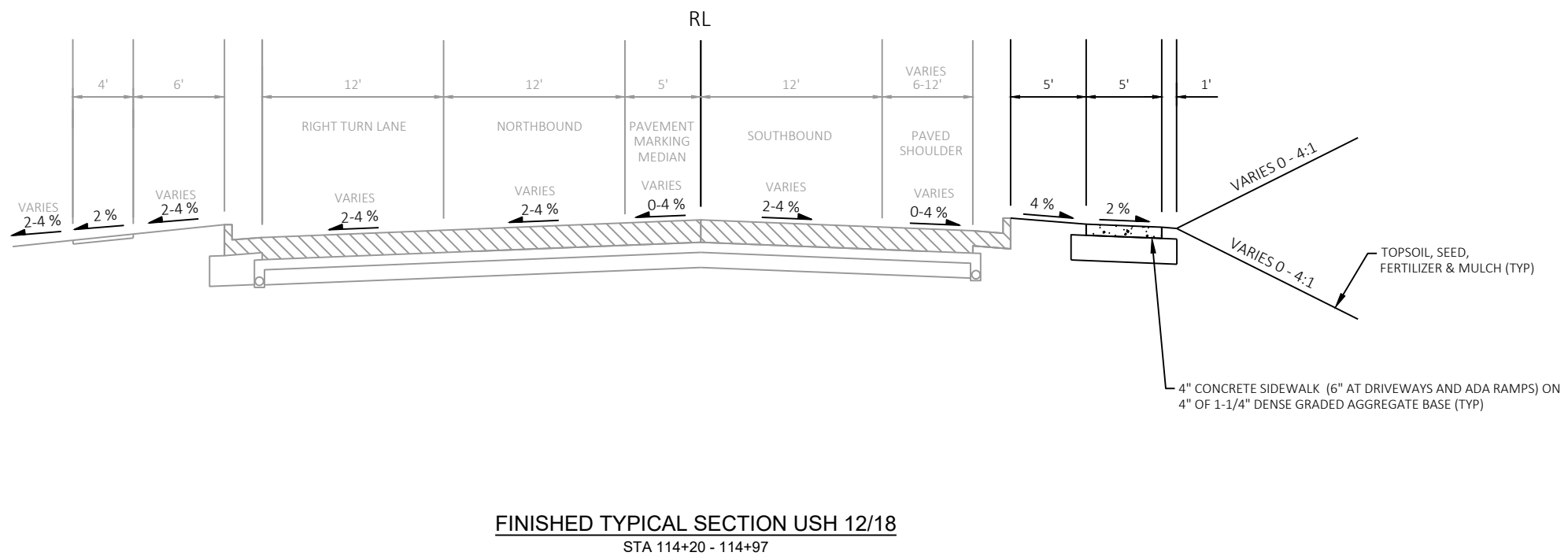
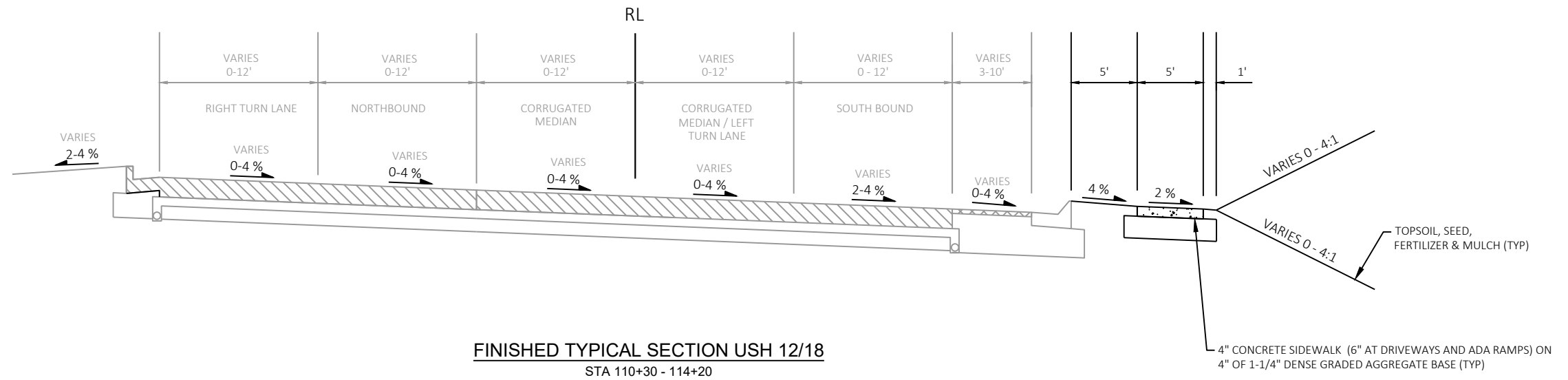
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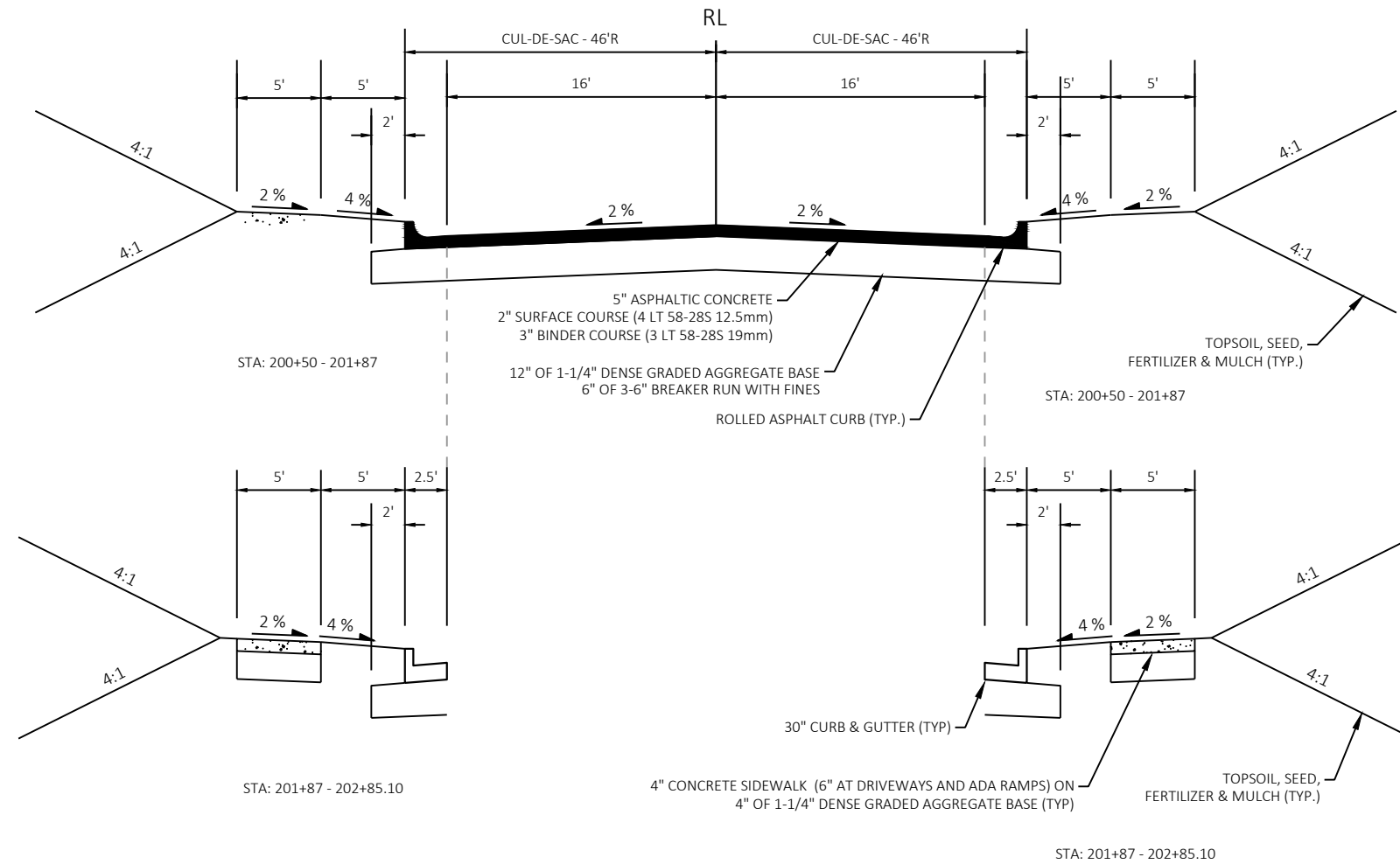
STA 207+00 - 210+11.50

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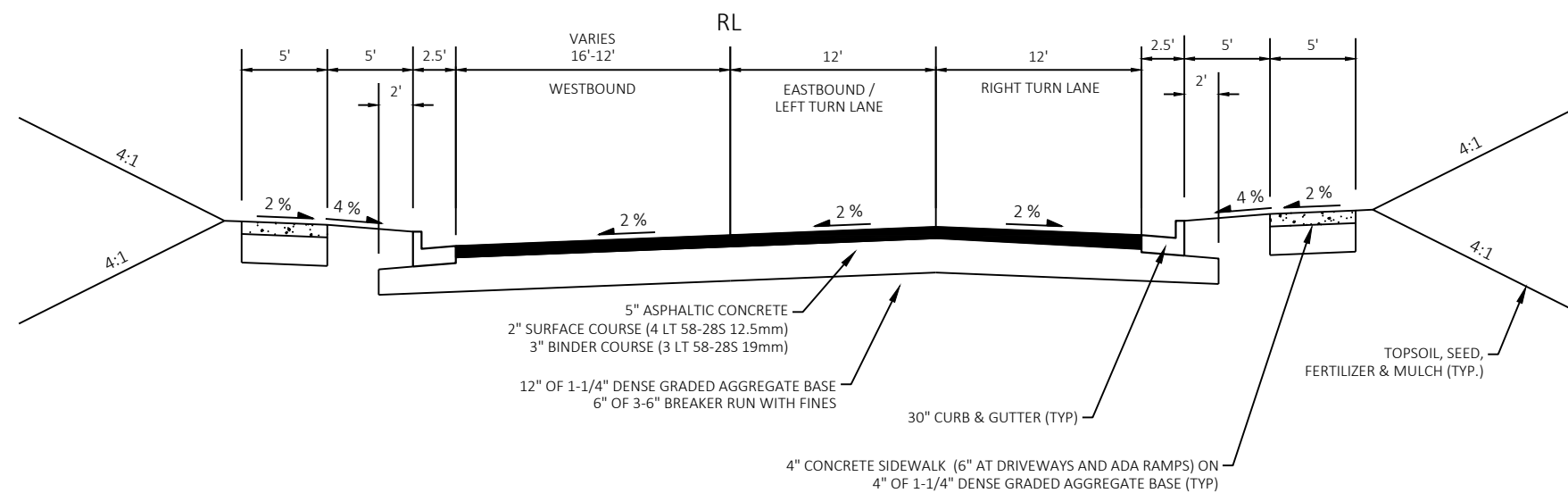
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**FINISHED TYPICAL SECTION WESTGATE CT**

STA 200+50 - 202+85.10

**FINISHED TYPICAL SECTION WESTGATE CT**

STA 202+85.10 - 205+80

PROJECT NO: 1701341

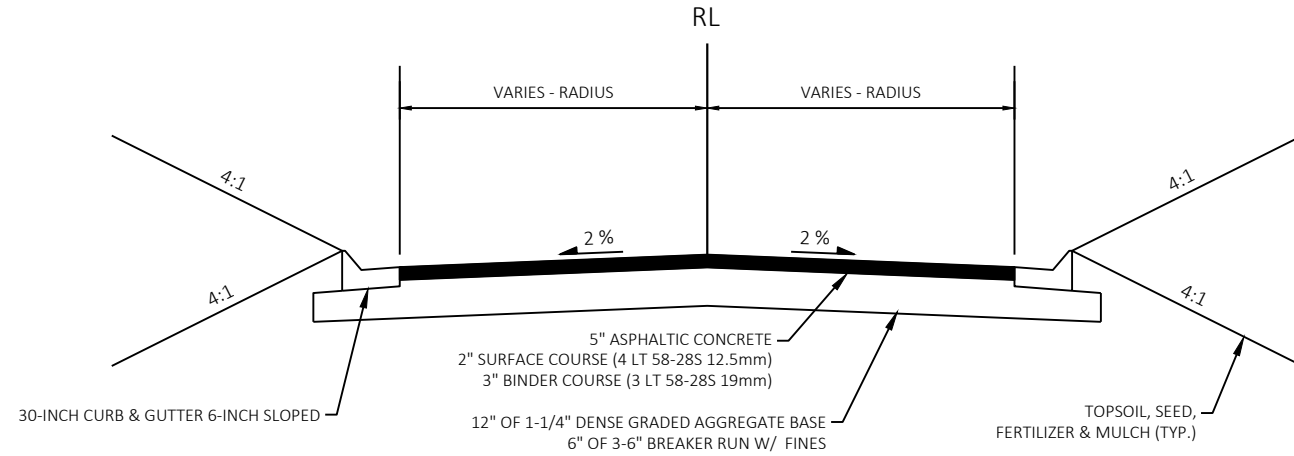
HWY: USH 12/18 & STH 134

COUNTY: DANE

TYPICAL FINISHED SECTIONS

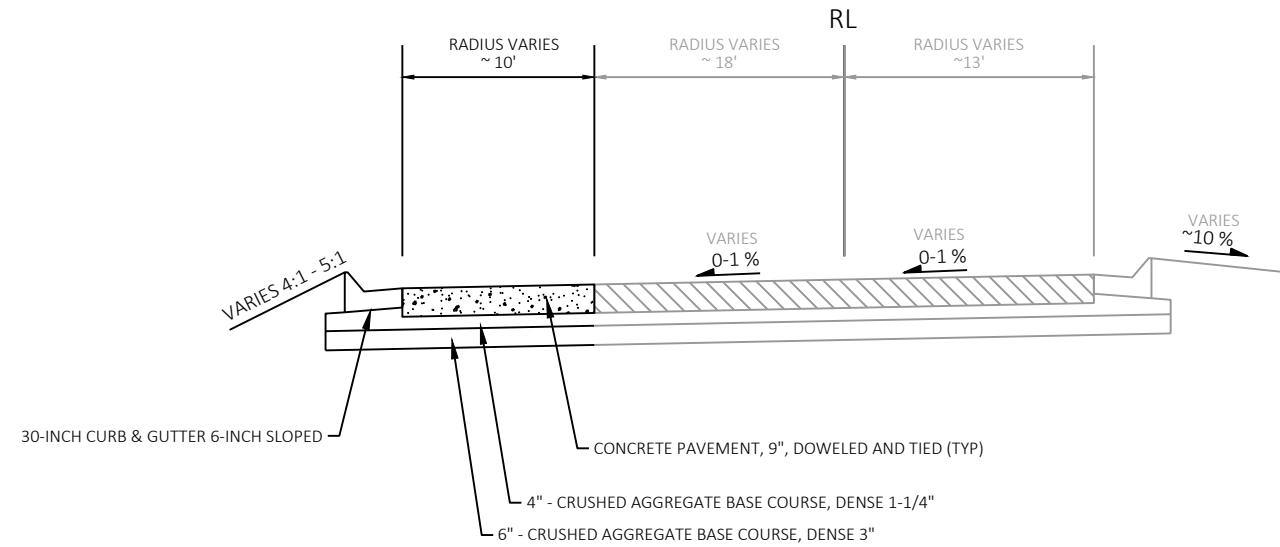
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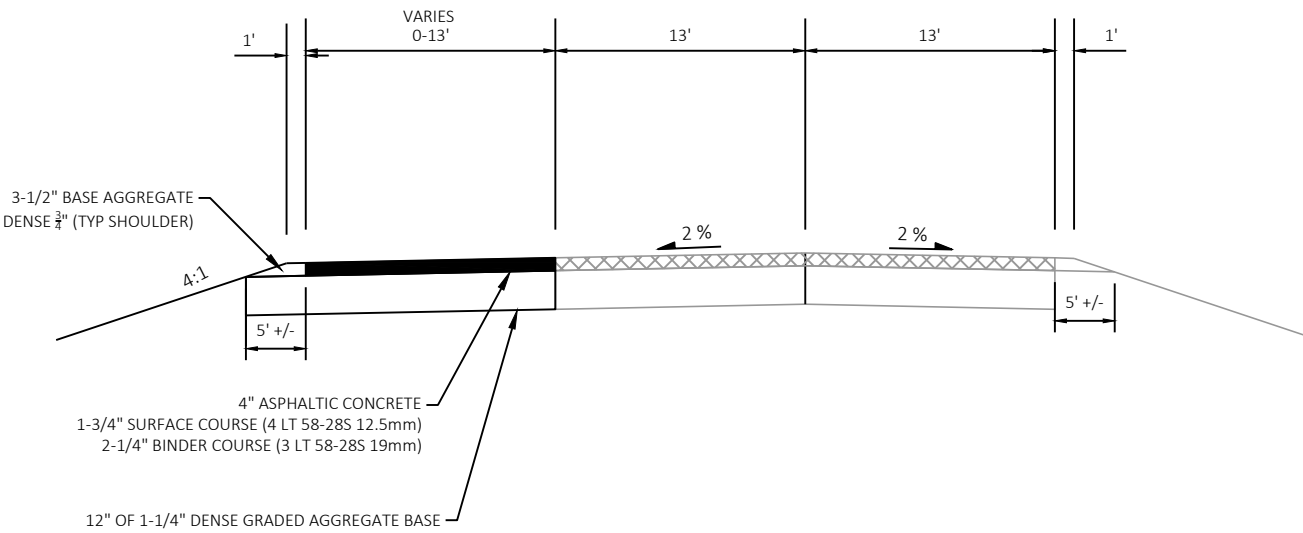
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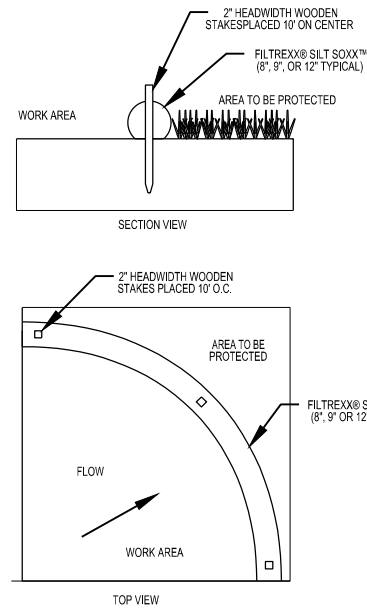


EXISTING TYPICAL SECTION STH 134

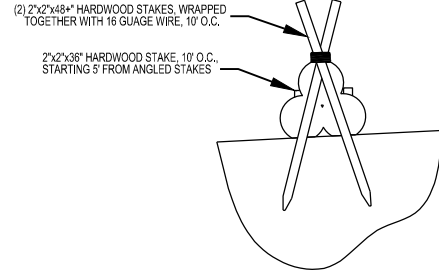
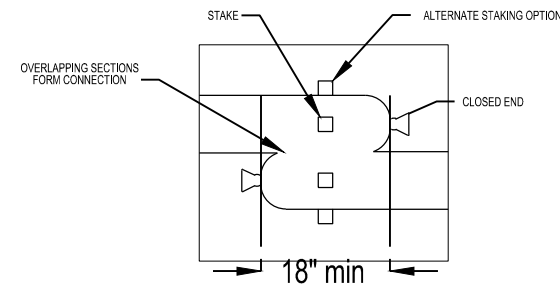
STA 206+80 - 207+33



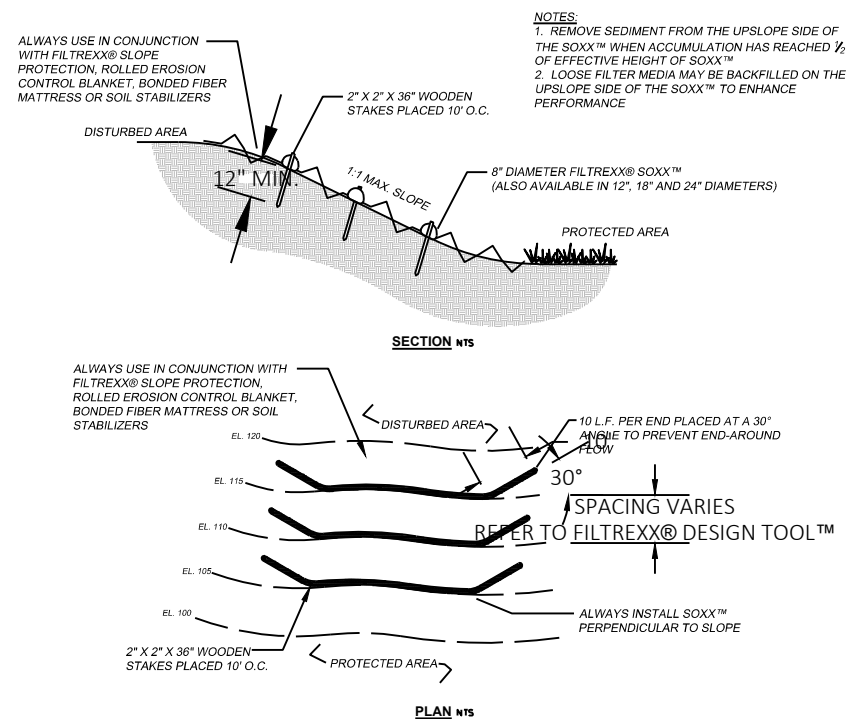
PROPOSED TYPICAL SECTION STH 134
STA 207+33 - 210+11.50

FILTREXX® SILT SOXX™

NOTES:
1. ALL MATERIAL TO MEET FILTREXX® SPECIFICATIONS.
2. SILT SOXX™ FILL TO MEET APPLICATION REQUIREMENTS.
3. COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY ENGINEER.

FILTREXX® PYRAMID STAKING DETAIL**COMPOST SOCK CONNECTION/ATTACHMENT DETAIL**

THIS DRAWING AND ALL INFORMATION CONTAINED HEREIN IS THE PROPERTY OF FILTREXX INTERNATIONAL, LLC AND MAY NOT BE COPIED, REPRODUCED OR DIVULGED TO UNAUTHORIZED PERSONS WITHOUT THE EXPRESS WRITTEN CONSENT OF FILTREXX INTERNATIONAL. IT IS PROVIDED SOLELY FOR THE CONVENIENCE OF THE USER AND SHALL BE RETURNED UPON REQUEST.	DIMENSIONS ARE IN INCHES ANGULAR BEING ± 2° TWO PLACE DECIMAL ± .05 THREE PLACE DECIMAL ± .005	DRAWN ECO	NAME	DATE	filtrerxx INTERNATIONAL, LLC 2000 WEST 10TH AVE. SUITE 100 DENVER, CO 80202 TEL: 303.733.1111 WWW.FILTREXX.COM	FILTREXX INTERNATIONAL, LLC 2000 WEST 10TH AVE. SUITE 100 DENVER, CO 80202 TEL: 303.733.1111 WWW.FILTREXX.COM
			CHECKED	DATE		
			NO NOT SCALE DRAWING			

SILT SOCK EROSION PROTECTION – FILTREXX OR APPROVED EQUAL**FILTREXX® SLOPE INTERRUPTION**

NTS

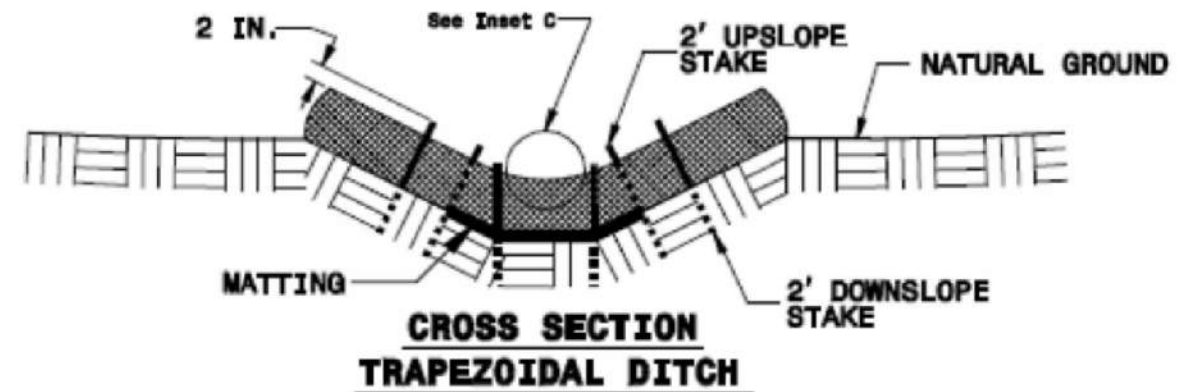
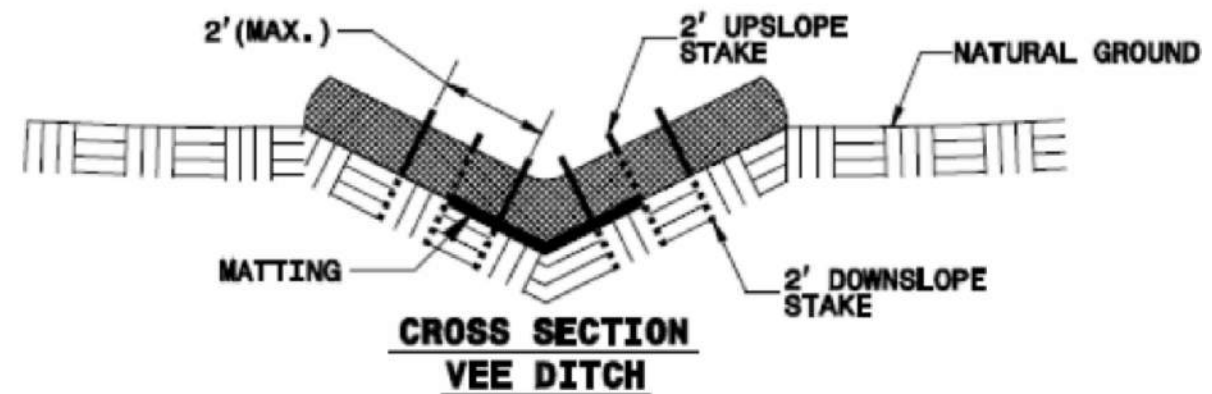
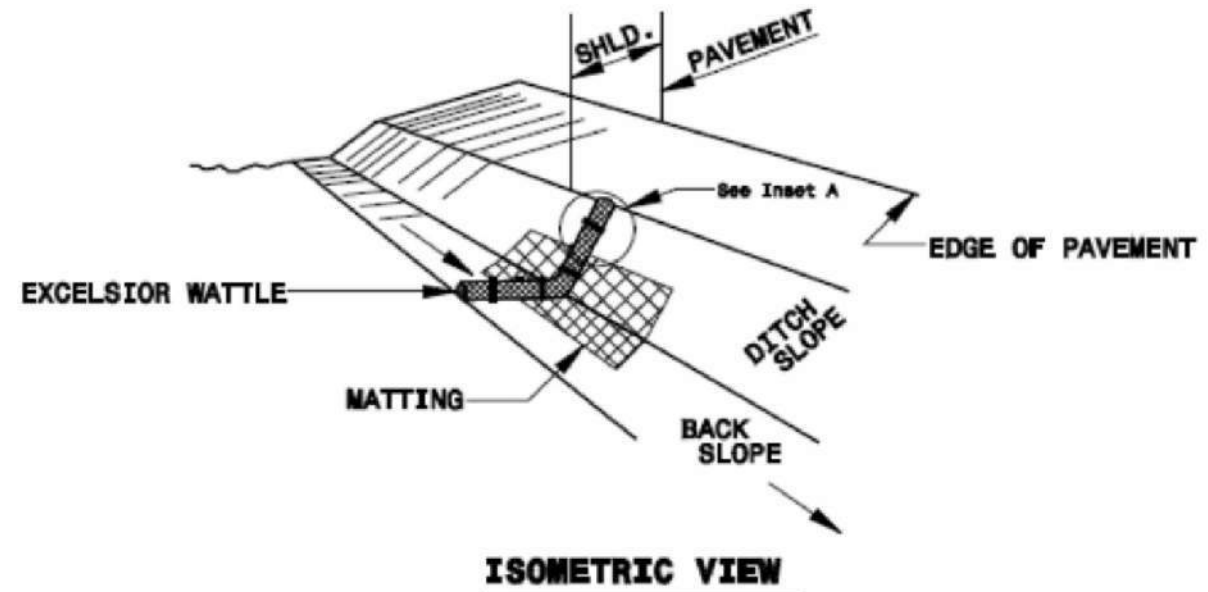
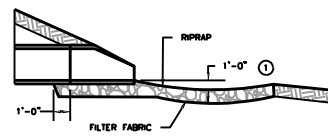
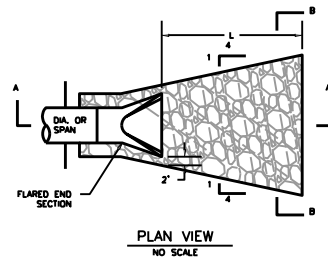
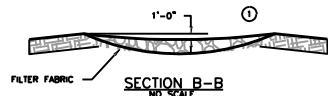


TABLE OF QUANTITIES RIPRAP AT RCP OUTLETS

		CLASS II Ø50=6"	CLASS III Ø50=9"	CLASS IV Ø50=12"
DIA OF ROUND PIPE (IN.)	L (FT.)	12" DEPTH RIPRAP (CU YDS.)	18" DEPTH RIPRAP (CU YDS.)	24" DEPTH RIPRAP (CU YDS.)
12	8	2.8	4.1	5.5
15	8	2.9	4.4	5.8
18	10	3.9	5.9	7.8
21	10	4.2	6.3	8.4
24	12	5.5	8.3	11.0
27	12	5.8	8.7	11.6
30	14	7.3	10.9	14.5
36	16	9.2	13.8	18.3
42	18	10.9	16.3	21.7
48	20	12.9	19.4	25.8

TABLE OF QUANTITIES RIPRAP AT RCP-A OUTLETS OR BOXES OF EQUIVALENT SPAN WIDTH

		CLASS II Ø50=6"	CLASS III Ø50=9"	CLASS IV Ø50=12"
SPAN OF PIPE ARCH (IN.)	L (FT.)	12" DEPTH RIPRAP (CU YDS.)	18" DEPTH RIPRAP (CU YDS.)	24" DEPTH RIPRAP (CU YDS.)
22	10	3.9	5.9	7.8
28	12	5.5	8.2	10.9
36	14	7.2	10.8	14.5
43	16	9.2	13.7	18.3
51	18	10.9	16.3	21.7
58	20	12.7	19.0	25.4



ALL FLARED END SECTIONS TO INCLUDE GRATES

NOTES:

- PIPES SIZES LARGER THAN THOSE SHOWN REQUIRE A SPECIAL DESIGN.
- ① GEOTEXTILE FILTER FABRIC SHALL BE TYPE "R" UNLESS OTHERWISE SPECIFIED.
- FOR PIPES GREATER THAN OR EQUAL TO 30" USE 1.5'.

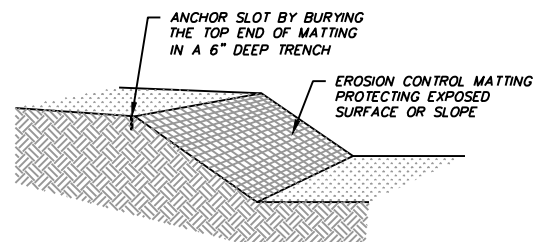
VILLAGE OF CAMBRIDGE

RIP-RAP & FABRIC DETAIL FOR ENDWALL

DATE: JULY 2020

DRAWING NO.

5-14

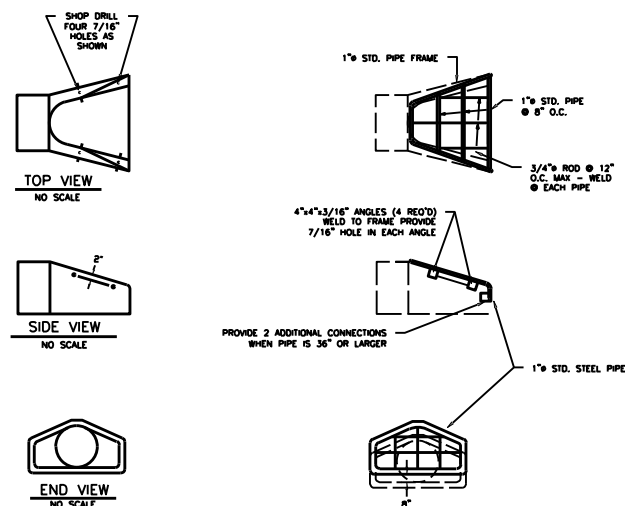


NOTES:

- PRIOR TO THE INSTALLATION OF ANY EROSION CONTROL MATTING, ALL ROCKS, DIRT CLODS, STUMPS, ROOTS, TRASH AND ANY OTHER OBSTRUCTIONS WHICH WOULD PREVENT THE MAT FROM LAYING IN DIRECT CONTACT WITH THE SOIL SHALL BE REMOVED.
- EROSION CONTROL MATTING SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 628 OF THE WISCONSIN DOT STANDARD SPECIFICATIONS, DNR TECHNICAL STANDARD 1052 (NON CHANNEL APPLICATIONS), DNR TECHNICAL STANDARD 1053 (CHANNEL APPLICATIONS), AND LATEST MANUFACTURER SPECIFICATIONS, ESPECIALLY NOTING REQUIRED STAPLE PATTERNS AND ANCHOR TRENCH REQUIREMENTS.
- INSTALLATION PROCEDURES MUST INSURE THAT THE MAT WILL REMAIN IN CONTACT WITH THE SOIL.
- THE MATTING SHALL BE ANCHORED PER MANUFACTURER REQUIREMENTS.
- THE MATTING SHALL BE ANCHORED TO THE GROUND PER MANUFACTURER REQUIREMENTS.
- TEMPORARY EROSION CONTROL MATTING SHALL BE WisDOT PAL CLASS I, TYPE B AND PERMANENT EROSION CONTROL MATTING SHALL BE WisDOT PAL CLASS III, TYPE A.
- MATTED AREAS MUST BE INSPECTED ON A WEEKLY BASIS, AND AFTER EACH SIGNIFICANT RAINFALL. BARE SPOTS, MISSING OR LOOSENED MATTING MUST BE IMMEDIATELY REPLACED AND/OR RE-ANCHORED.
- FOR CHANNEL APPLICATIONS, EXTEND MAT UPSLOPE ONE-FOOT MINIMUM VERTICALLY FROM DITCH BOTTOM OR SIX-INCHES HIGHER THAN DESIGN FLOW, WHICHEVER IS GREATER.

EROSION CONTROL MATTING DETAIL

NOTE: INSTALL ON ALL SLOPES OF 4:1 OR GREATER



PAINTING SPECIFICATIONS

THE PIPE GATE SHALL RECEIVE THE FOLLOWING PREPARATION & PAINTING. SEE NOTES: FIRST COAT- RUST-OLEUM 1-50 RED BARE METAL PRIMER OR EQUAL. SECOND COAT- RUST-OLEUM 960 ZINC CHROMATE PRIMER OR EQUAL. THIRD COAT- RUST-OLEUM 1202 HIGH GLOSS A METALIC FINISH OR EQUAL.

NOTES:

- BARE SURFACES - AFTER THROUGH SCRAPING, WIRE BRUSHING & CLEANING APPLY THE THREE COAT SYSTEM LISTED.
- EACH COAT AN OVERALL COAT.
- ALLOW 24-48 HOURS DRYING TIME BETWEEN COATS.

NOTES:

- THE CONTRACTOR SHALL BOLT THE PIPE GATE TO THE CONCRETE ENDWALL WITH FOUR 3/8" x 6" MACHINE BOLTS WITH NUTS ON INSIDE WALL.
- PIPE GATES ARE REQUIRED ON ENDWALLS GREATER THAN OR EQUAL TO 12"

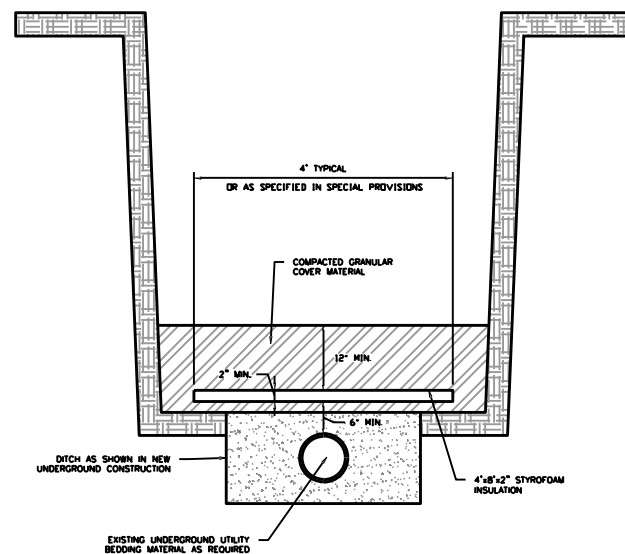
VILLAGE OF CAMBRIDGE

STANDARD PIPE GATE FOR CONCRETE APRON ENDWALL

DATE: JULY 2020

DRAWING NO.

5-12



S:

- LATION STANDARDS SHALL BE AS FOLLOW:
- WATER MAIN - INSULATE AT DEPTHS LESS THAN 6.5'.
- WATER MAIN SERVICES - INSULATE AT DEPTHS LESS THAN 6.5'.
- SANITARY MAIN SERVICES - INSULATE AT DEPTHS LESS THAN 5.0'.
- STORM SEWER LATERALS - INSULATE

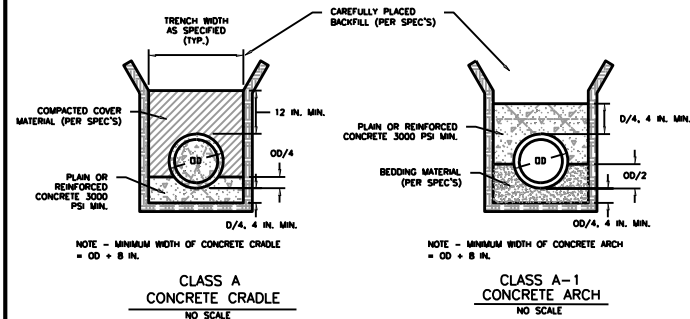
VILLAGE OF CAMBRIDGE

PIPE INSULATION DETAIL

DATE: JULY 2020

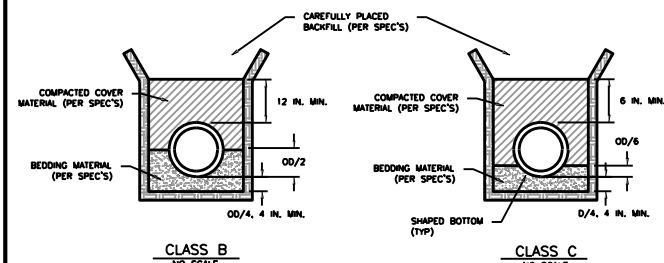
DRAWING NO.

5-5



NOTE - MINIMUM WIDTH OF CONCRETE CRADLE = OD + 8 IN.

CLASS A CONCRETE CRADLE NO SCALE



CLASS B CONCRETE CRADLE NO SCALE

NOTES:

- ALL PVC AND ABS SEWER MAINS AND LATERALS SHALL BE CLASS "B" MIN., OR AS CALLED FOR IN THE SPECIAL PROVISIONS.
- ALL BEDDING AND COVER MATERIALS SHALL BE AS SPECIFIED AND SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.
- UNDERCUT SHALL BE IN ACCORDANCE WITH SECTION 3 OF THE STORM AND SANITARY SEWER STANDARD SPECIFICATIONS.

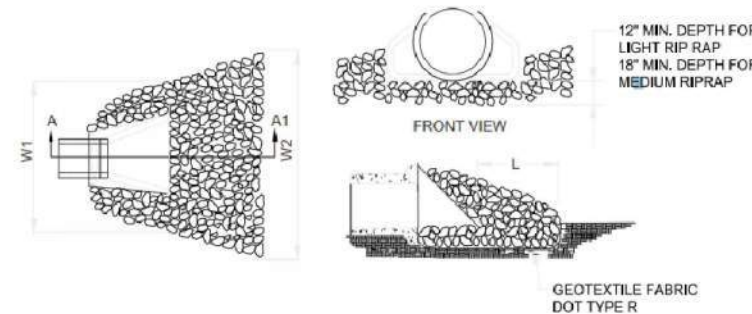
VILLAGE OF CAMBRIDGE

STORM & SANITARY SEWER BEDDING STANDARDS

DATE: JULY 2020

DRAWING NO.

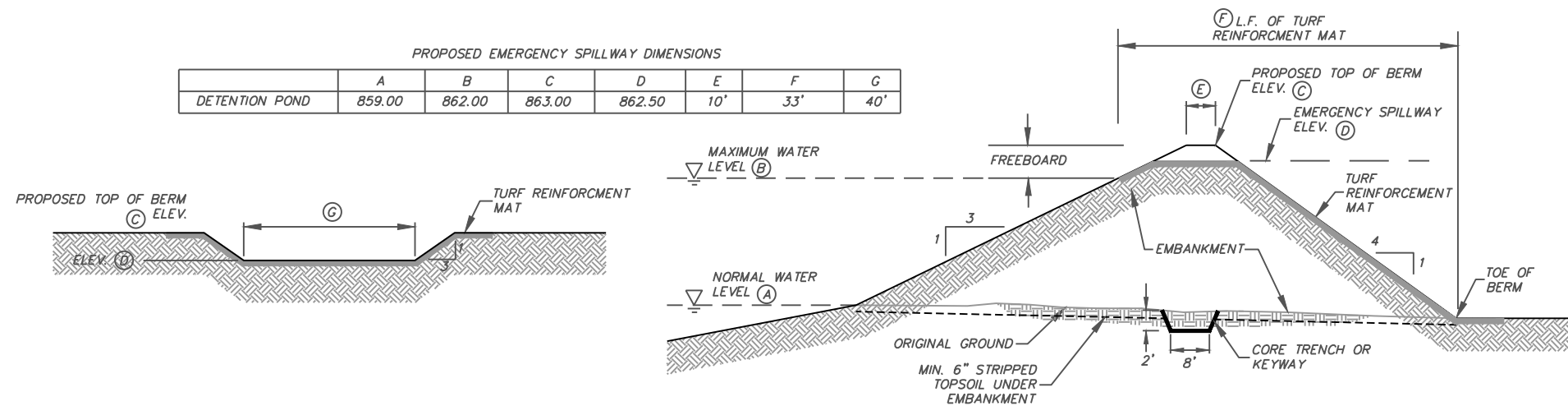
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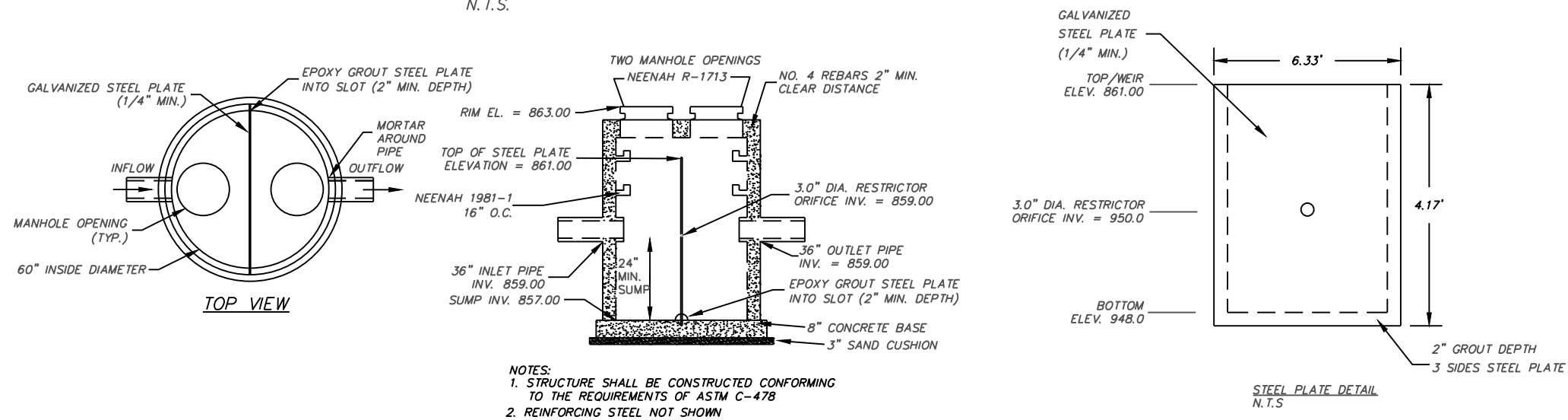
NOTES:

- EXCAVATE TO ONE FOOT BELOW PIPE OUTLET AND WIDEN CHANNEL TO THE REQUIRED RIP RAP THICKNESS FOR EACH APRON. FOUNDATION TO BE CUT TO ZERO GRADE AND SMOOTHED.
- PLACE FILTER CLOTH ON BOTTOM AND SIDES OF PREPARED FOUNDATION. ALL JOINTS TO OVERLAP A MINIMUM OF ONE FOOT.
- EXERCISE CARE IN RIPRAP PLACEMENT TO AVOID DAMAGE TO FILTER FABRIC.
- PLACE RIPRAP ON ZERO GRADE, TOP OF RIPRAP TO BE LEVEL WITH PROPOSED OUTLET, NO OVERFALL AT ENDS.
- RIPRAP SHALL BE MEDIUM RIPRAP IN ACCORDANCE WITH SECTION 606 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
- IMMEDIATELY AFTER CONSTRUCTION, STABILIZE ALL DISTURBED AREAS WITH VEGETATION.
- LINE CHANNEL TO TOP OF BANKS FOR A DISTANCE OF 12' DOWNSTREAM. NO RESTRICTION OF CHANNEL CROSS SECTION SHOULD EXIST.

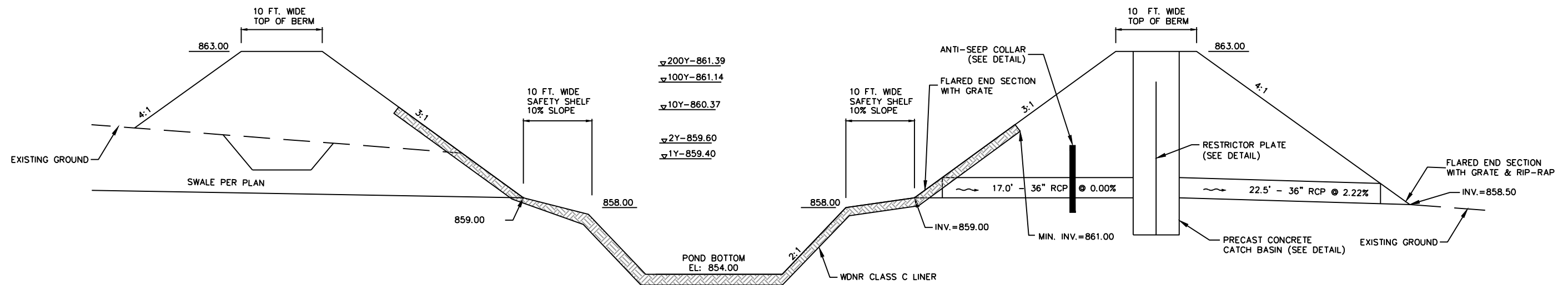
RIPRAP PROTECTION AT OUTLETS

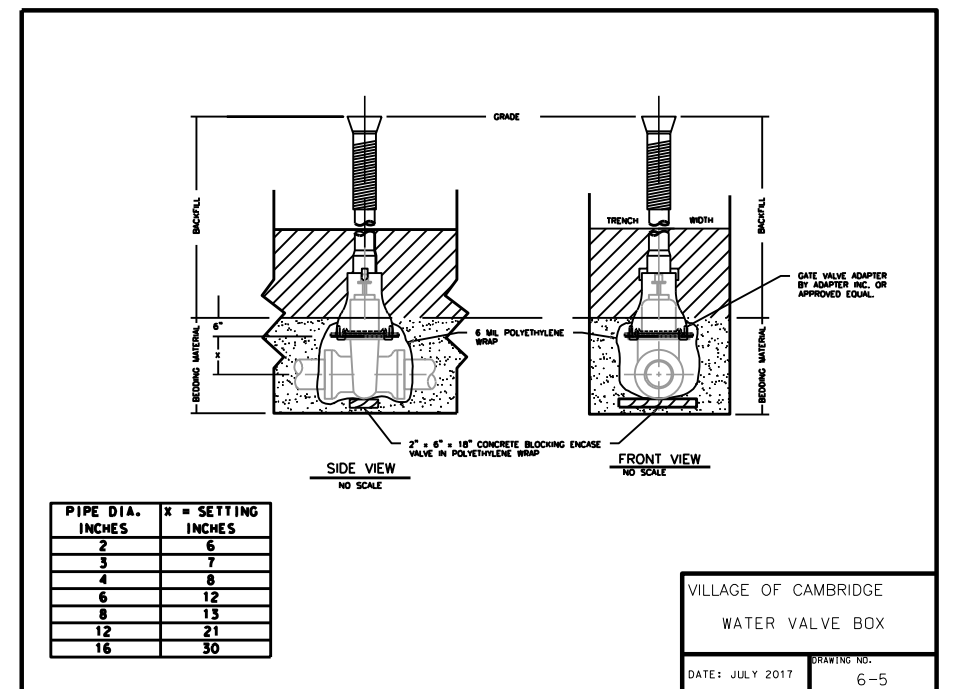
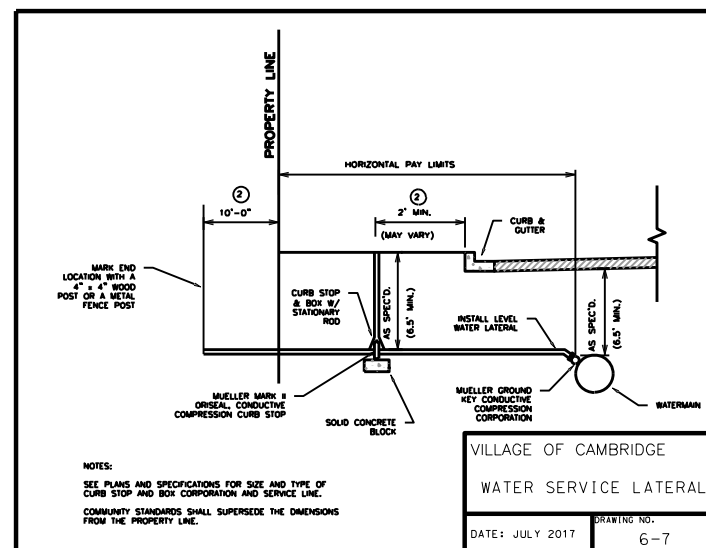
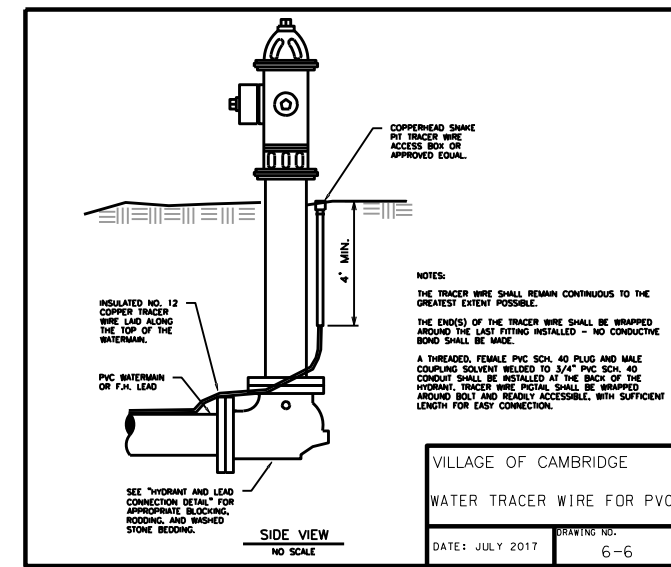
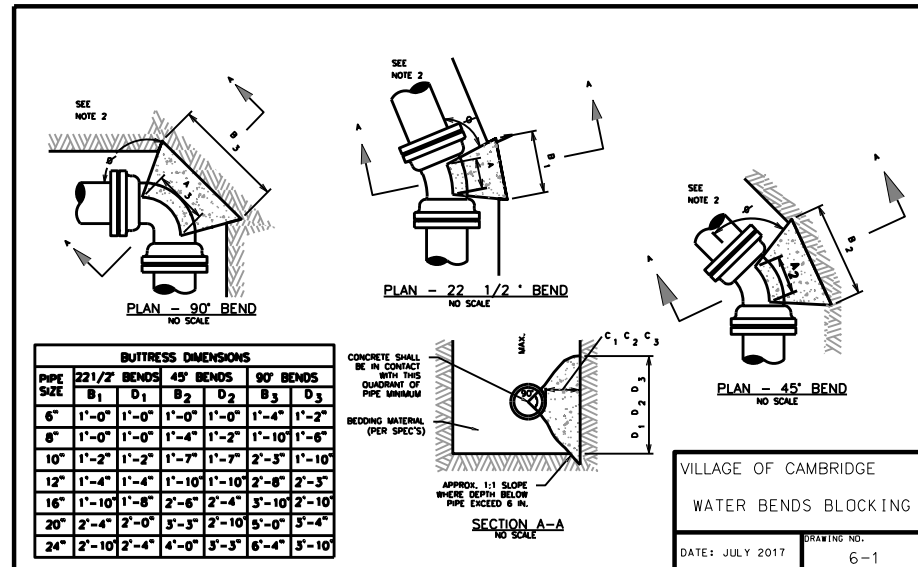
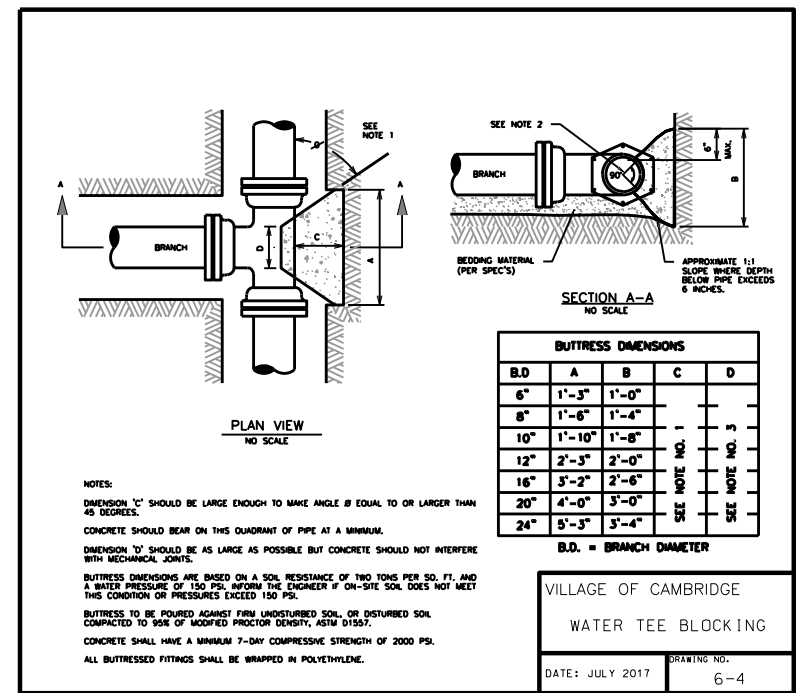
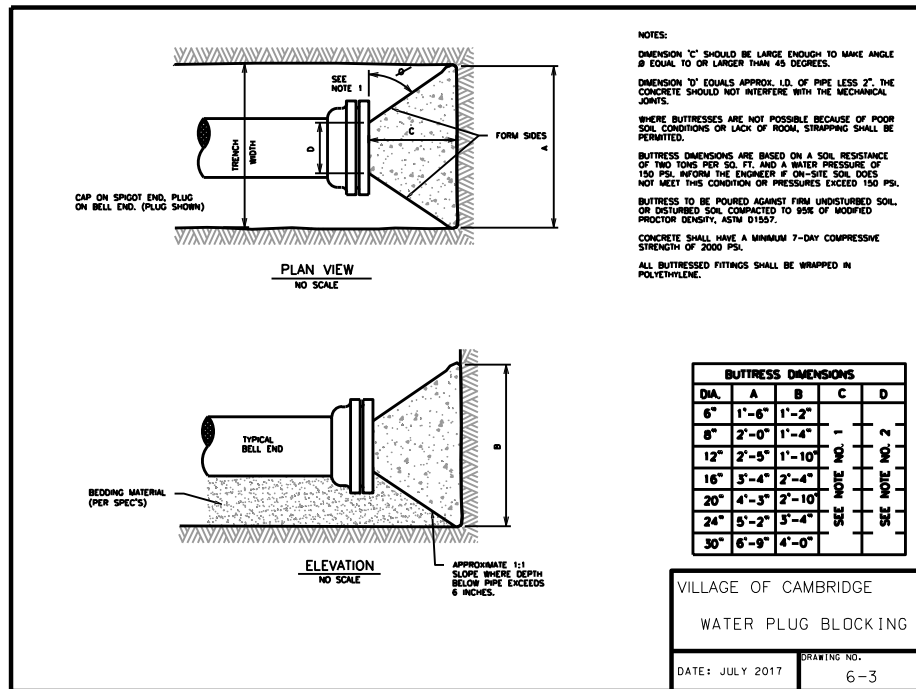
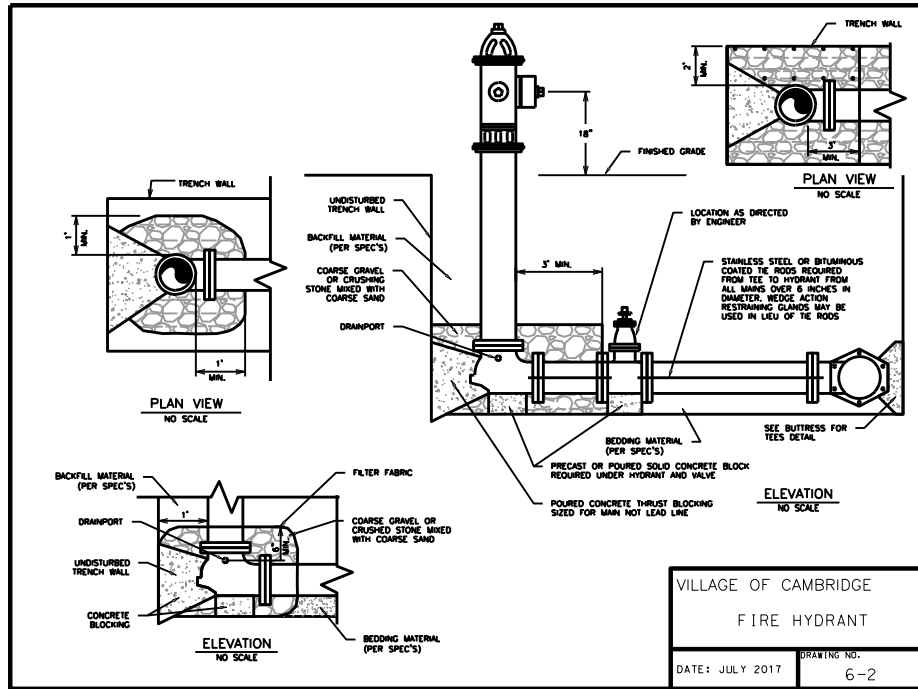


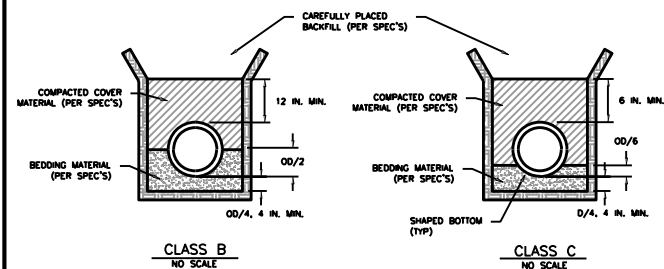
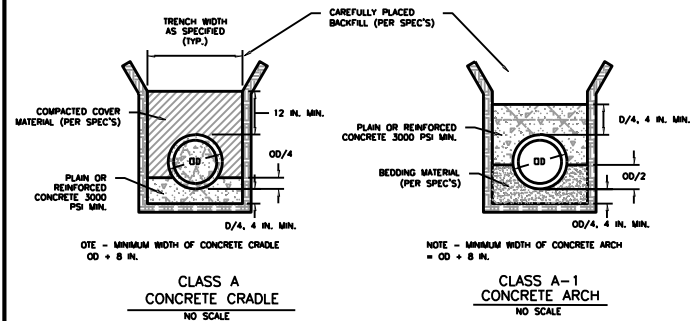
PROPOSED TRM LINED EMERGENCY SPILLWAY
N.T.S.



WET DETENTION POND OUTLET CONTROL STRUCTURE DETAIL
N.T.S.







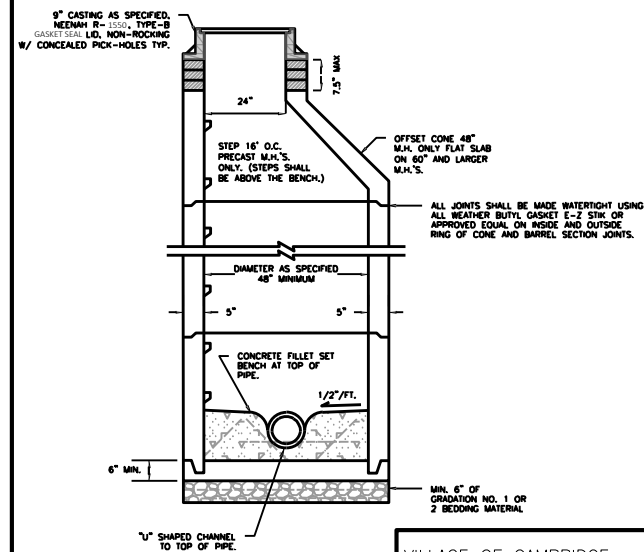
NOTES:
ALL PVC AND ABS SEWER MAINS AND LATERALS SHALL BE CLASS 15 MIN. OR AS CALLED FOR IN THE SPECIAL PROVISIONS.
ALL BEDDING AND COVER MATERIALS SHALL BE AS SPECIFIED AND SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.
UNDERCUT SHALL BE IN ACCORDANCE WITH SECTION 3 OF THE STORM AND SANITARY SEWER STANDARD SPECIFICATIONS.

VILLAGE OF CAMBRIDGE

STORM & SANITARY SEWER
BEDDING STANDARDS

DATE: JULY 2020 DRAWING NO. 5-1

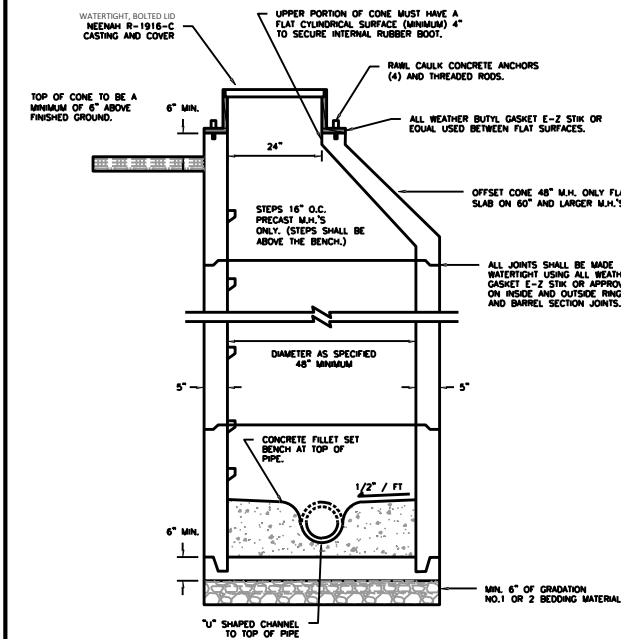
PRECAST CONCRETE ADJUSTMENT RINGS SHALL BE PROVIDED AND MEET REQUIREMENTS OF ASTM C-478. RINGS MAY BE PROVIDED IN 2-INCH, 3-INCH, AND 4-INCH THICKNESSES. AN ALL WEATHER PRECOMPRESSED BUTYL RUBBER SEALANT, 3/8" x 3 1/2" SHALL BE USED BETWEEN ALL RINGS (KENT SEAL, E-Z STIK, OR EQUAL).



VILLAGE OF CAMBRIDGE

SANITARY MANHOLES IN STREET LOCATIONS

DATE: JULY 2020 DRAWING NO. 5-7

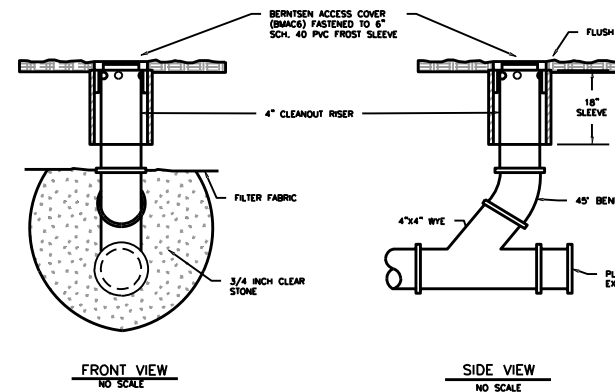


NOTES:
PRECAST REINFORCED CONCRETE MANHOLE SECTIONS MANUFACTURED TO MEET ASTM SPECIFICATION 3-478.
THE ENGINEER MAY ALSO APPROVE THE USE OF STREET LOCATION INSTALLATIONS IN OTHER LOCATIONS.

VILLAGE OF CAMBRIDGE

SANITARY MANHOLES IN REMOTE LOCATIONS

DATE: JULY 2020 DRAWING NO. 5-8



NOTES:
THE TOP OF THE CLEANOUT RISE SHALL NOT EXTEND ABOVE EXISTING GROUND ELEVATION.
THE CONTRACTOR SHALL DRILL FOUR 1" DIAMETER HOLES WITHIN CLEANOUT RISER APPROXIMATELY 4" BELOW EXISTING GROUND ELEVATION.
THE CONTRACTOR SHALL REMOVE THE EXISTING SUMP PUMP DISCHARGE PIPE WITHIN THE STREET R.O.W. AND CONNECT EXISTING SUMP LINE 3' PAST R.O.W.
THE CLEANOUT RISER SHALL BE ENCASED IN A 6" SCH. 40 PVC FROST SLEEVE WITH A BERTSEN ACCESS COVER (BMACS).
THE CLEANOUT RISER SHALL BE INSTALLED 1' OUTSIDE OF R.O.W.

VILLAGE OF CAMBRIDGE

STORM LATERAL CLEANOUT CONNECTION

DATE: JULY 2020 DRAWING NO. 5-4

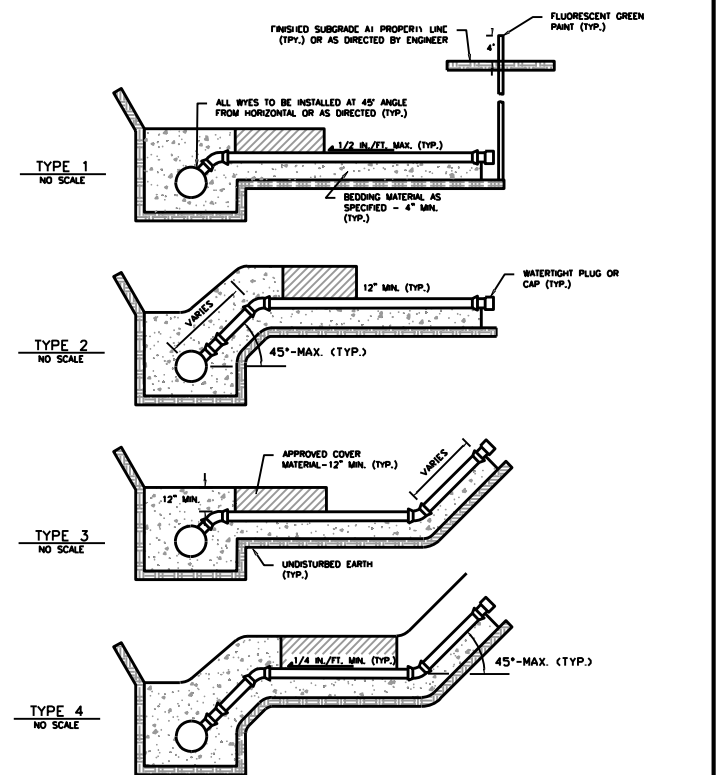
NOTES

1. REFER TO CITY STANDARD SPECIFICATIONS FOR TRACER WIRE.

SANITARY SEWER AND FORCE MAIN LIDS SHALL BE COLORED GREEN.
WATER MAIN LIDS SHALL BE COLORED BLUE.
STORM SEWER LIDS SHALL BE COLORED BROWN.
ELECTRICAL LIDS SHALL BE COLORED RED.



CAST IRON LID

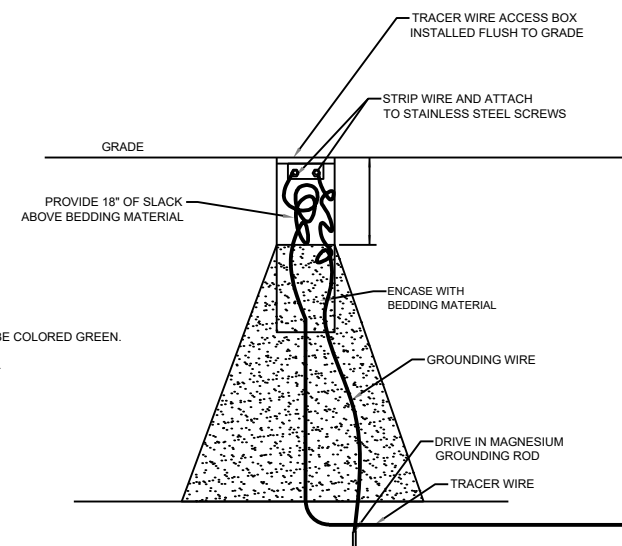


NOTES:
BEDDING MATERIAL SHALL BE 3/4" CLEAR STONE, UNLESS OTHERWISE APPROVED BY VILLAGE ENGINEER.
ENDS OF ALL LATERALS TO BE 10' MIN. COVER AT END AND BE PAINTED GREEN, MARKED BOTH BELOW AND EXTENDING 4' ABOVE FINISH GRADE WITH 4" x 4".
ALL NEW CONSTRUCTION TO BE PLACED ON UNDISTURBED GROUND OR SAND COMPACTED TO 95% MAXIMUM DENSITY.
LATERAL MATERIAL INCLUDING FITTINGS SHALL BE OF SAME MATERIAL AS THE SEWER MAIN, OR AS DIRECTED BY ENGINEER.

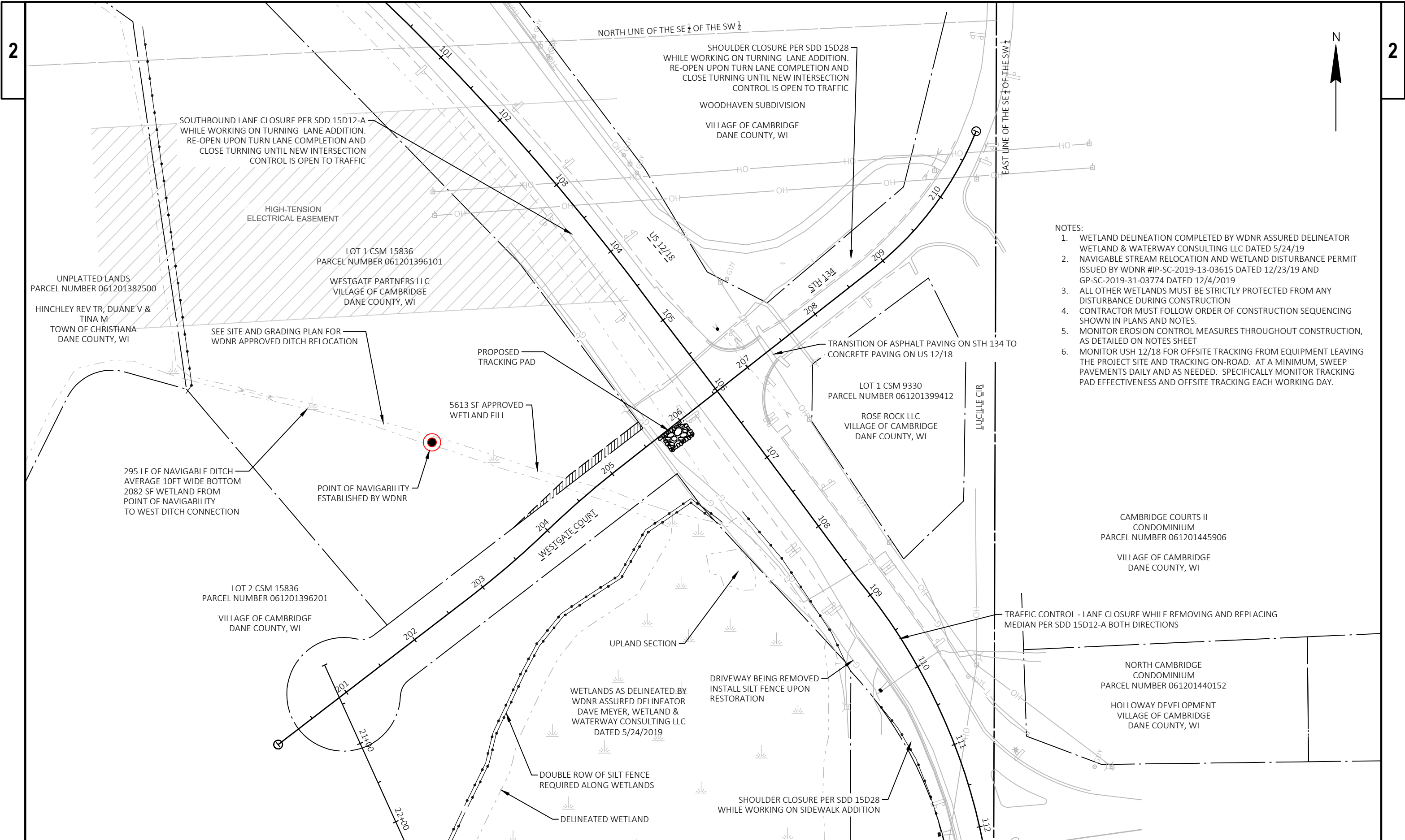
VILLAGE OF CAMBRIDGE

SANITARY SEWER LATERALS
STANDARD DETAILS

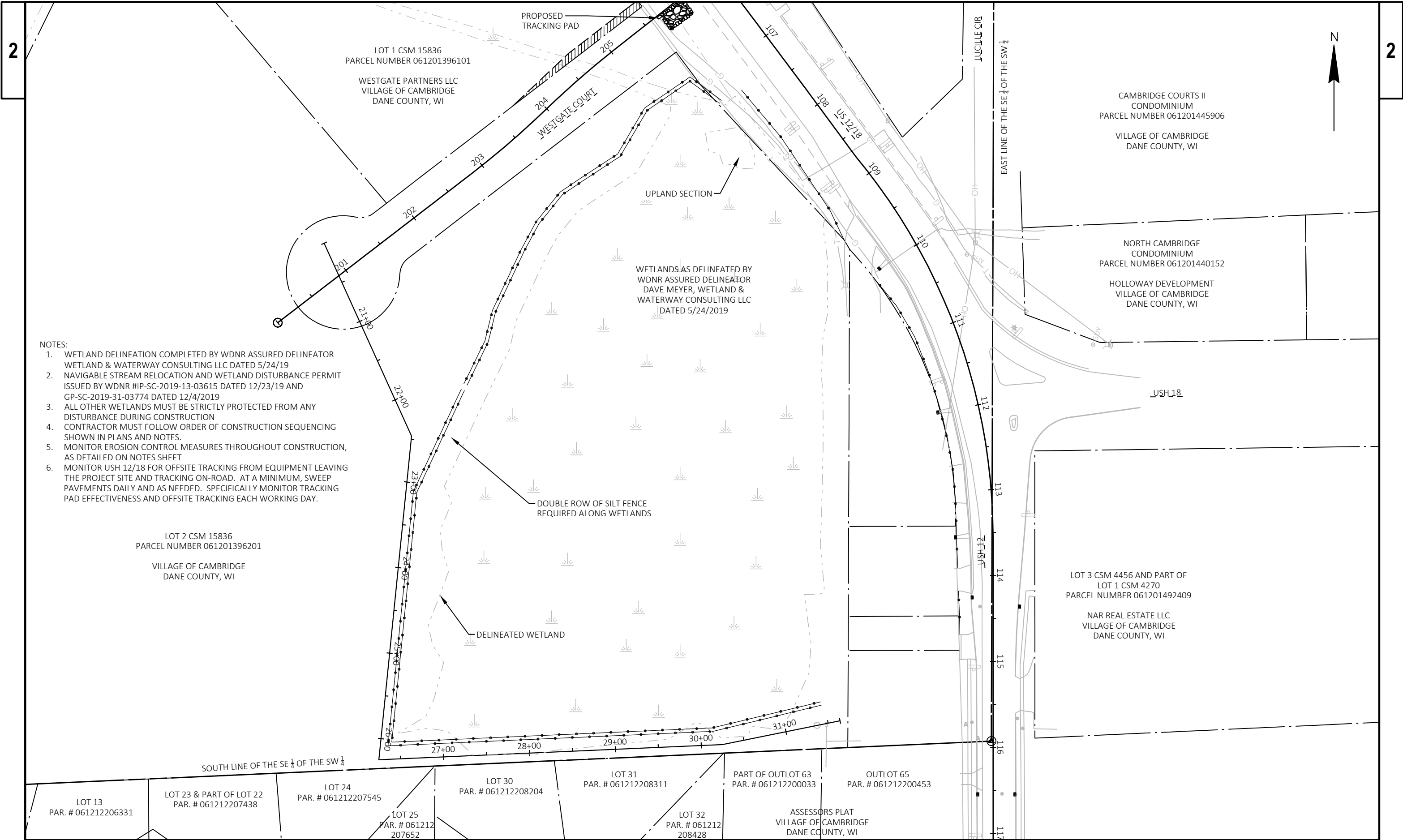
DATE: JULY 2020 DRAWING NO. 5-2

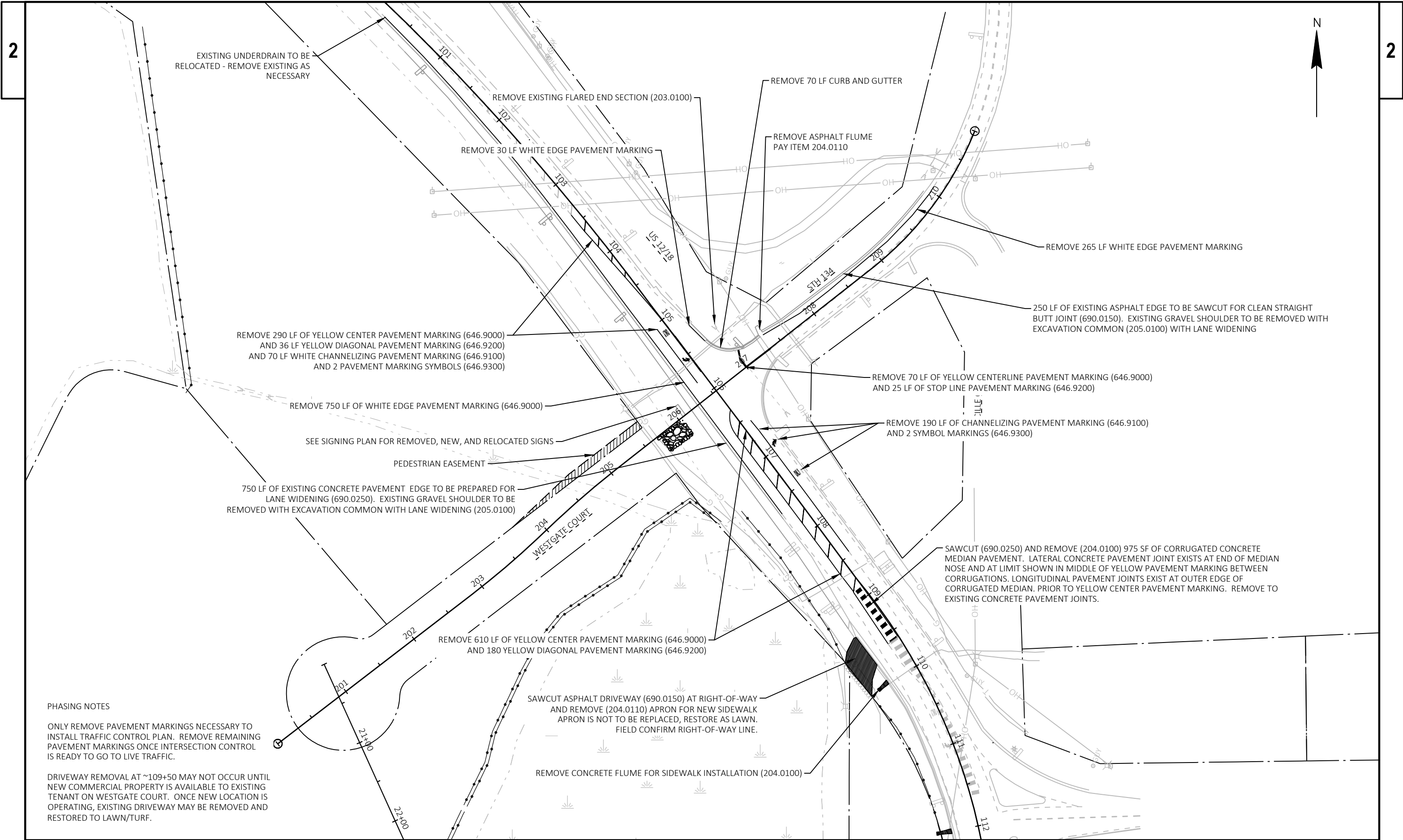


TRACER WIRE ACCESS BOX DETAIL
N.T.S.



- NOTES:
1. WETLAND DELINEATION COMPLETED BY WDNR ASSURED DELINEATOR WETLAND & WATERWAY CONSULTING LLC DATED 5/24/19
 2. NAVIGABLE STREAM RELOCATION AND WETLAND DISTURBANCE PERMIT ISSUED BY WDNR #IP-SC-2019-13-03615 DATED 12/23/19 AND GP-SC-2019-31-03774 DATED 12/4/2019
 3. ALL OTHER WETLANDS MUST BE STRICTLY PROTECTED FROM ANY DISTURBANCE DURING CONSTRUCTION
 4. CONTRACTOR MUST FOLLOW ORDER OF CONSTRUCTION SEQUENCING SHOWN IN PLANS AND NOTES.
 5. MONITOR EROSION CONTROL MEASURES THROUGHOUT CONSTRUCTION, AS DETAILED ON NOTES SHEET
 6. MONITOR USH 12/18 FOR OFFSITE TRACKING FROM EQUIPMENT LEAVING THE PROJECT SITE AND TRACKING ON-ROAD. AT A MINIMUM, SWEEP PAVEMENTS DAILY AND AS NEEDED. SPECIFICALLY MONITOR TRACKING PAD EFFECTIVENESS AND OFFSITE TRACKING EACH WORKING DAY.

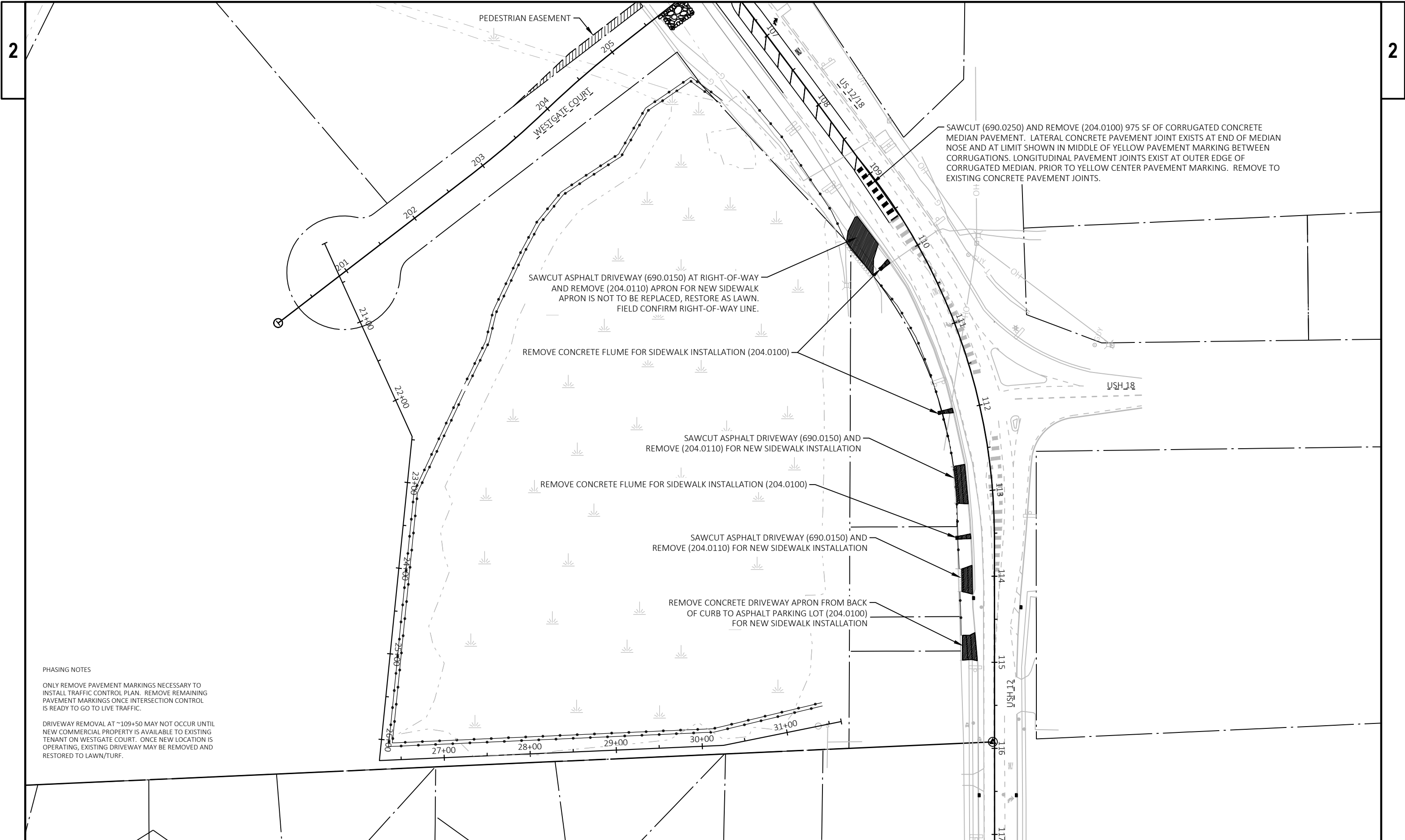




PHASING NOTES

ONLY REMOVE PAVEMENT MARKINGS NECESSARY TO INSTALL TRAFFIC CONTROL PLAN. REMOVE REMAINING PAVEMENT MARKINGS ONCE INTERSECTION CONTROL IS READY TO GO TO LIVE TRAFFIC.

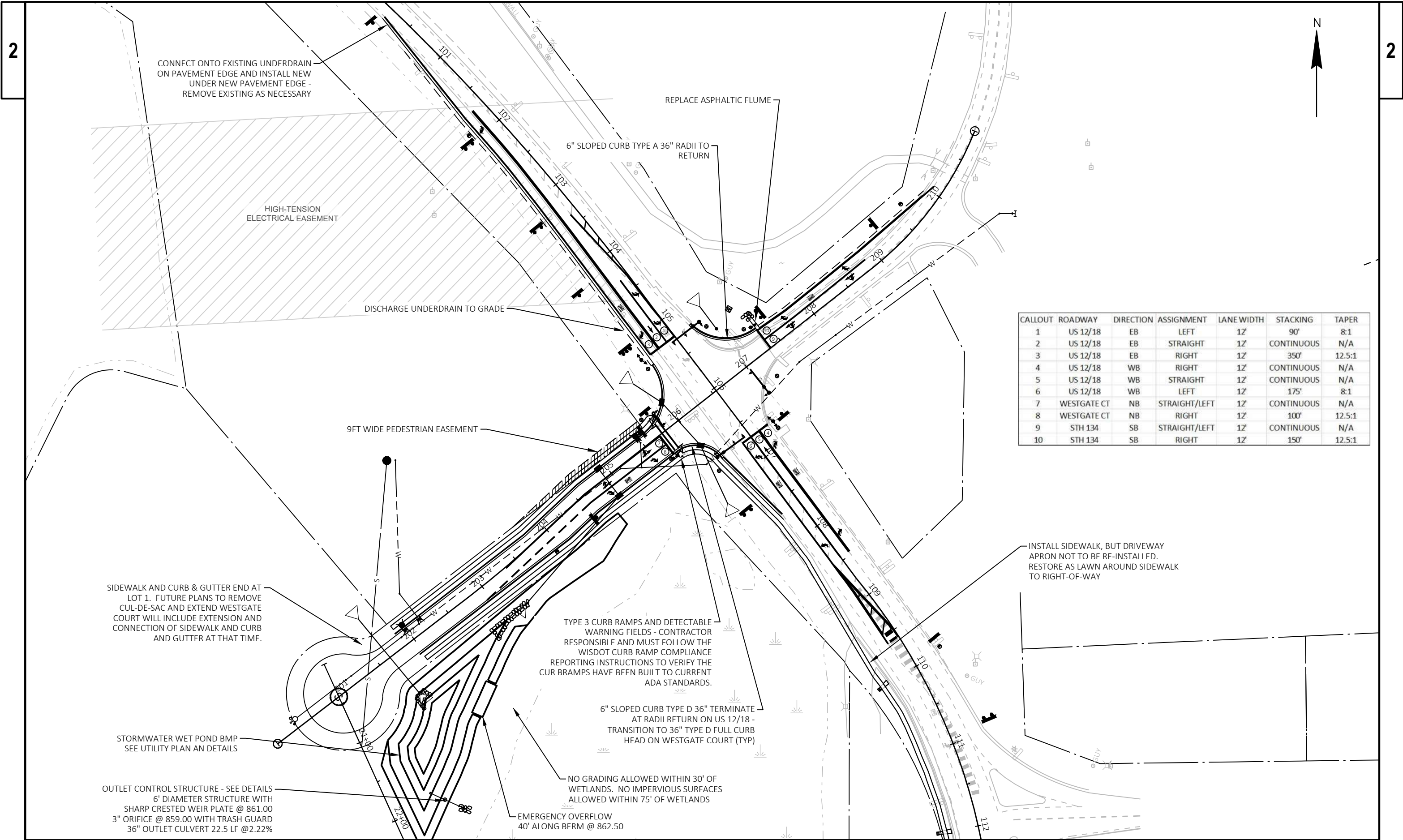
DRIVEWAY REMOVAL AT ~109+50 MAY NOT OCCUR UNTIL NEW COMMERCIAL PROPERTY IS AVAILABLE TO EXISTING TENANT ON WESTGATE COURT. ONCE NEW LOCATION IS OPERATING, EXISTING DRIVEWAY MAY BE REMOVED AND RESTORED TO LAWN/TURF.

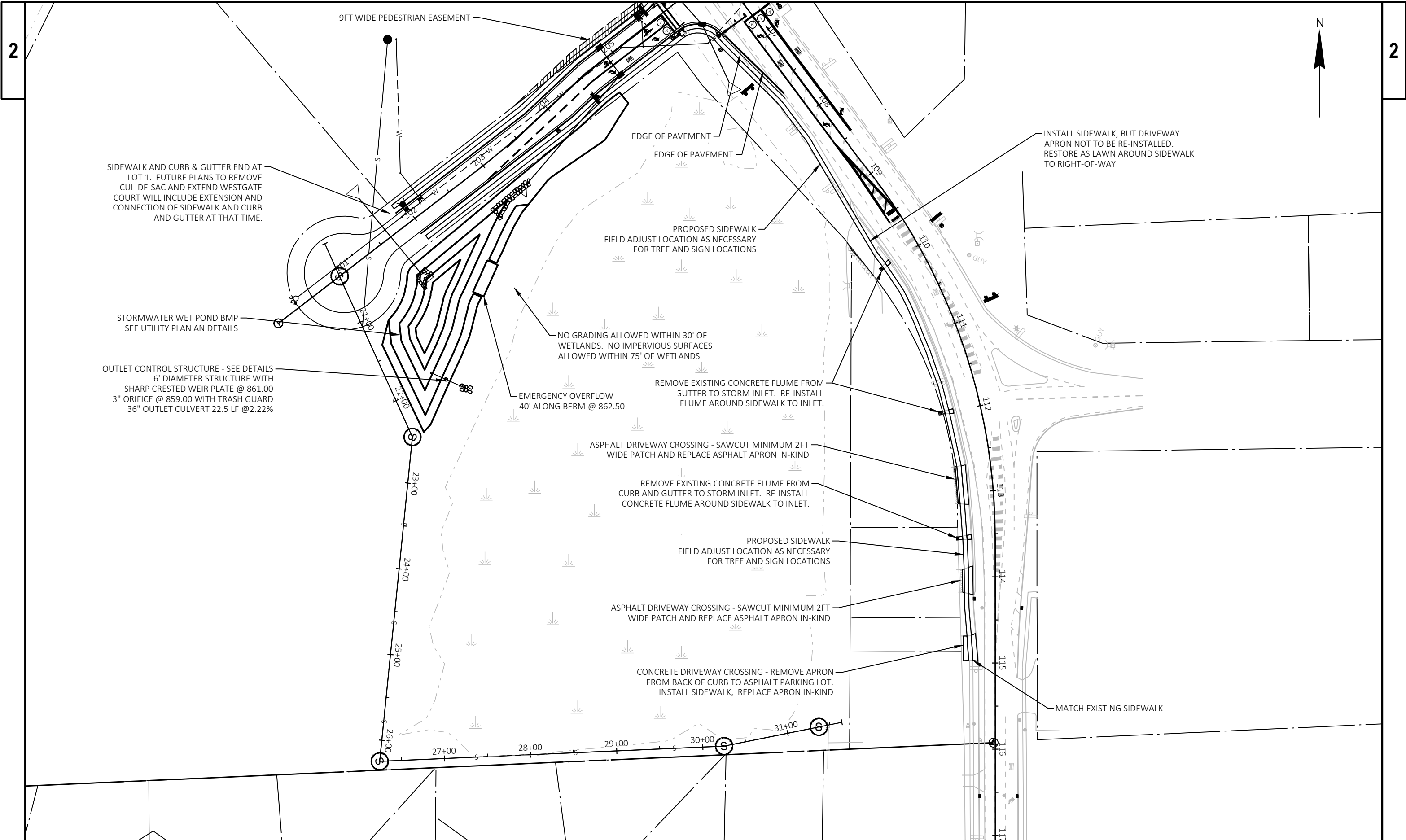


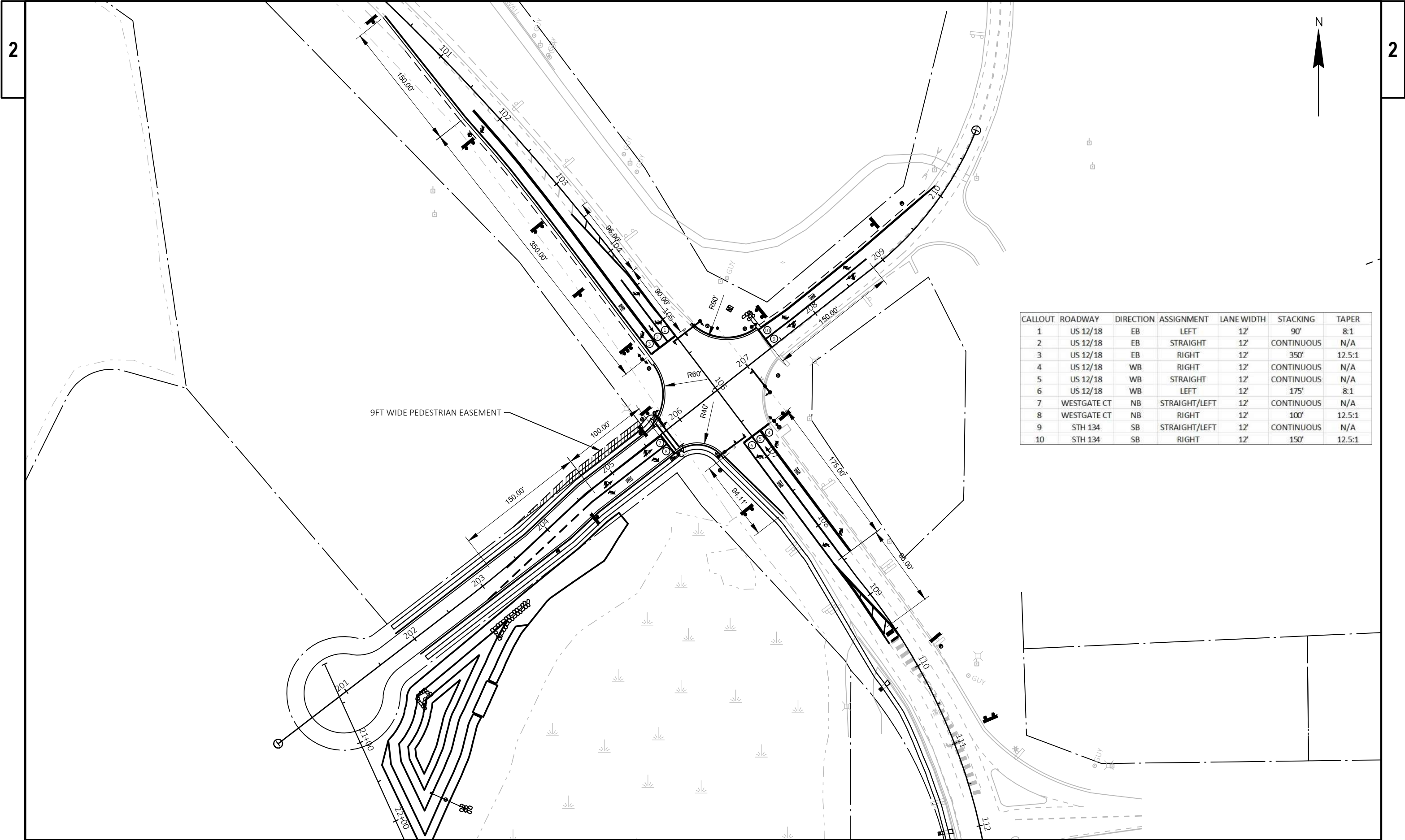
PHASING NOTES

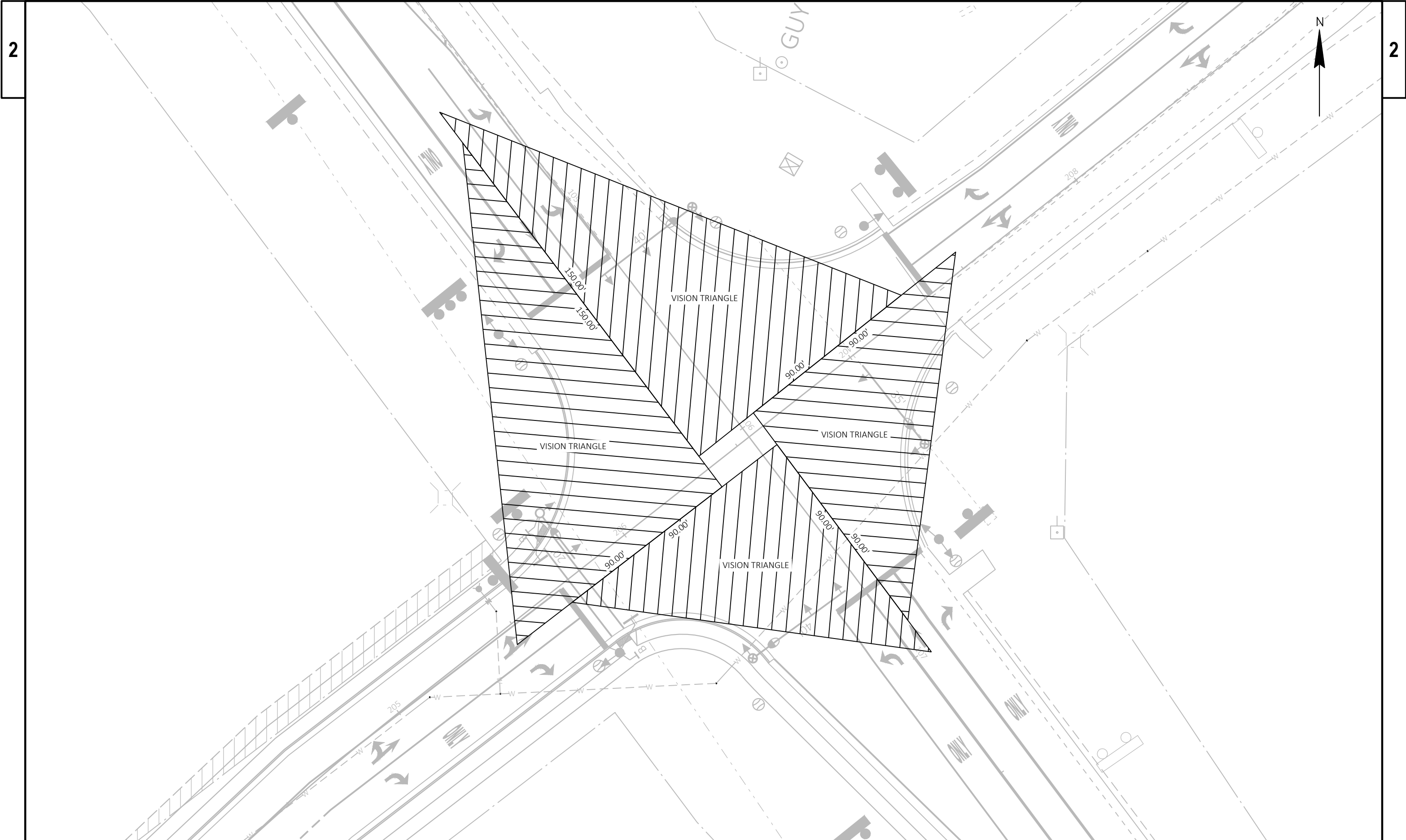
ONLY REMOVE PAVEMENT MARKINGS NECESSARY TO INSTALL TRAFFIC CONTROL PLAN. REMOVE REMAINING PAVEMENT MARKINGS ONCE INTERSECTION CONTROL IS READY TO GO TO LIVE TRAFFIC.

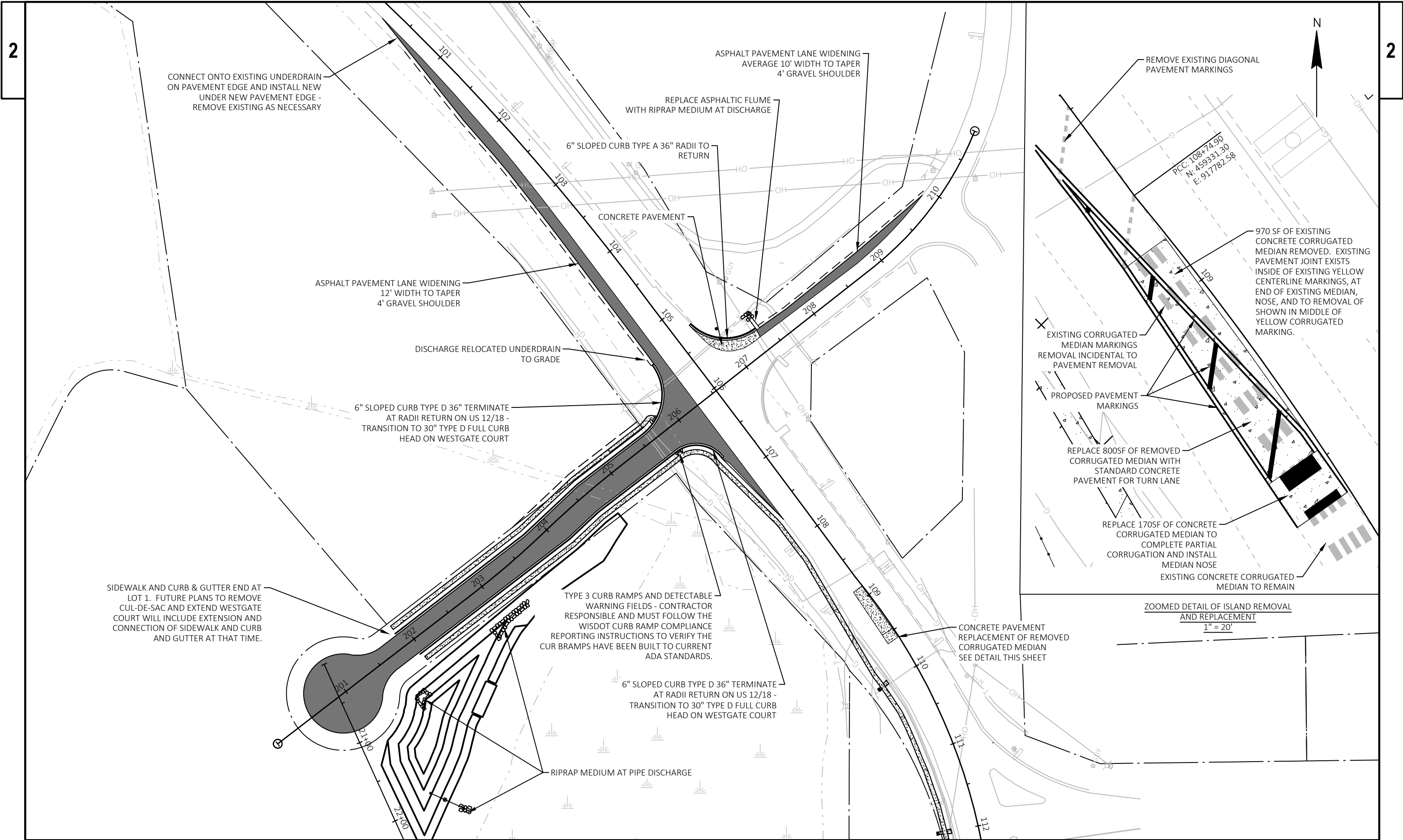
DRIVEWAY REMOVAL AT ~109+50 MAY NOT OCCUR UNTIL NEW COMMERCIAL PROPERTY IS AVAILABLE TO EXISTING TENANT ON WESTGATE COURT. ONCE NEW LOCATION IS OPERATING, EXISTING DRIVEWAY MAY BE REMOVED AND RESTORED TO LAWN/TURF.

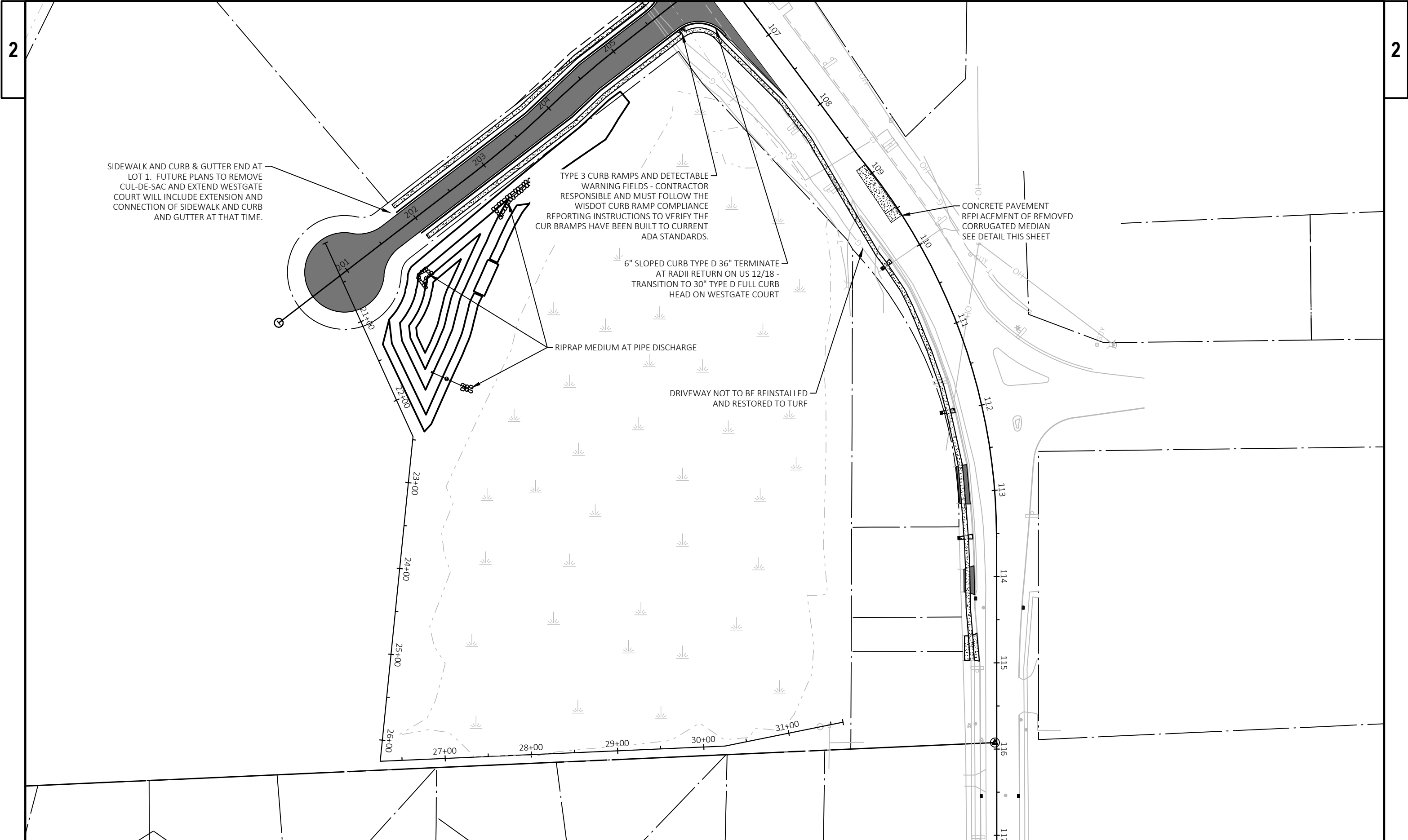












SANITARY AND WATER NOTES:

1. CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
2. SEE PLAN AND PROFILE FOR ADDITIONAL DETAIL.
3. ALL NEW SEWERS SHALL HAVE A CLOSED-CIRCUIT TELEVISION INSPECTION PERFORMED AFTER THE BINDER COURSE OF ASPHALT IS PLACED AND PRIOR TO ACCEPTANCE OF THE SEWERS. THE TELEVISION REPORTS SHALL BE SUPPLIED TO THE VILLAGE OF CAMBRIDGE WASTEWATER DEPARTMENT FOR REVIEW.
4. SANITARY SEWER AND ASSOCIATED STRUCTURES ARE TO CONFORM TO THE VILLAGE OF CAMBRIDGE SPECIFICATIONS AND THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN.
5. WATERMAIN AND ASSOCIATED STRUCTURES ARE TO CONFORM TO THE VILLAGE OF CAMBRIDGE SPECIFICATIONS AND THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN.
6. ALL FITTINGS SHALL BE RESTRAINED WITH MEGALUGS.
7. WATER LATERALS SHALL BE PROVIDED TO EACH LOT WITH MINIMUM 6.5' BURY. SANITARY LATERALS SHALL BE PROVIDED TO EACH LOT AT A MINIMUM SLOPE OF $\frac{1}{8}$ " PER FOOT. LATERALS CONNECTING TO EXISTING SANITARY SEWER AND WATER MAINS SHALL BE COORDINATED IN THE FIELD WITH MINIMUM BURY DEPTHS AND SLOPES MAINTAINED.
8. WATER AND SANITARY LATERALS SHALL BE MARKED AT THE TERMINI WITH A PAINTED FENCE POST. SANITARY SHALL BE PAINTED RED, WATER SHALL BE PAINTED BLUE AND THE TRACER WIRE SHALL BE EXPOSED AND ATTACHED TO IT.
9. HORIZONTAL SEPARATION OF ALL NEW MAINS SHALL BE MINIMUM OF 8'.
10. ALL WATERMAIN DUCTILE IRON PIPE IS TO INCLUDE POLYETHYLENE ENCASEMENT.

CONNECT ONTO EXISTING UNDERDRAIN
ON PAVEMENT EDGE AND INSTALL NEW
UNDER NEW PAVEMENT EDGE -
REMOVE EXISTING AS NECESSARY

REMOVE EXISTING END SECTION
ADD NEW PIPE FOR EXTENSION
MATCH EXISTING SLOPE.

DISCHARGE RELOCATED UNDERDRAIN
TO GRADE

CONCEPTUAL LOT 1 LAYOUT SHOWN
FINAL DETAILS AND CONSTRUCTION
PLANS BY OTHERS

THIS SCOPE OF WORK INCLUDES SEWER
AND WATER SERVICES TO LOT 1 - 5FT
PAST LOT LINE. LINES SHOWN TO
BUILDING PAD FOR INFORMATION AND
COORDINATION PURPOSES ONLY
SEE ROAD & UTILITY PLAN AND PROFILE
UNDER CARDINAL ENGINEERING BORDER
INCLUDED WITH THIS CONTRACT

SEE ROAD & UTILITY PLAN AND PROFILE
UNDER CARDINAL ENGINEERING BORDER
INCLUDED WITH THIS CONTRACT

SEE PLAN AND PROFILE OF SEWER
UNDER CARDINAL ENGINEERING BORDER
INCLUDED WITH THIS CONTRACT

OUTLET CONTROL STRUCTURE - SEE DETAILS
6' DIAMETER STRUCTURE WITH
SHARP CRESTED WEIR PLATE @ 861.00
3" ORIFICE @ 859.00 WITH TRASH GUARD
36" OUTLET CULVERT 22.5 LF @ 2.22%

STORM MANHOLE & INLET NOTES:

1. CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.

INLET (INL)

REFER TO FILE No 12 (STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN), EXCEPT:

- A. USE 42" MINIMUM DIAMETER UNLESS INDICATED OTHERWISE ON PLAN.
- B. ALL FLARED END SECTIONS TO INCLUDE GRATES.
- C. CONTRACTOR RESPONSIBLE FOR VERIFYING REQUIRED CASTINGS IS COMPATIBLE WITH STRUCTURE. IF NOT COMPATIBLE, CONTACT ENGINEER IMMEDIATELY FOR POSSIBLE REDIESGN.

MANHOLE (MH)

REFER TO FILE No 12 (STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN), EXCEPT;

USE CASTING AS INDICATED IN DETAILS

- D. USE 48" MINIMUM DIAMETER UNLESS INDICATED OTHERWISE ON PLAN.
- E. CONTRACTOR RESPONSIBLE FOR VERIFYING REQUIRED CASTING IS COMPATIBLE WITH STRUCTURE. IF NOT COMPATIBLE, CONTACT ENGINEER IMMEDIATELY FOR POSSIBLE REDESIGN
- F. FOR PRECAST MANHOLE TEE, REFER TO FILE No 16 AND SECTION 3.5.6 (STANDARD SPECIFICATION FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN).

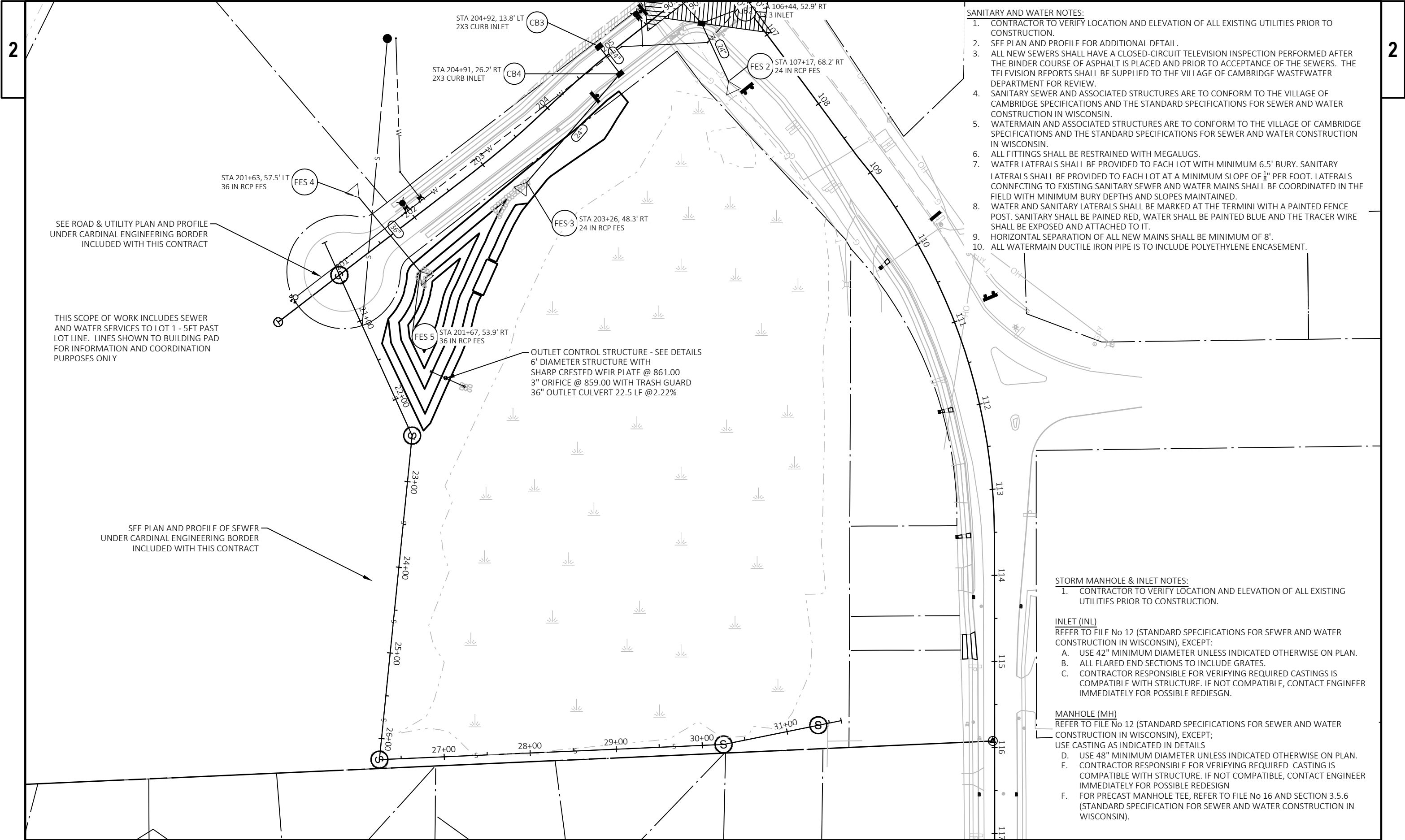
STORM SEWER DETAILS													
STRUCTURE INFORMATION								PIPE INFORMATION					
NAME	STRUCTURE	FRAME AND GRATE STYLE	NEENAH COVER	RIM ELEVATION	SUMP ELEVATION	TOTAL STRUCTURE HEIGHT (FT)	RIM TO HIGHEST CROWN (FT)	PIPE DIAMETER (INCHES)	DIRECTION	FLOW DIRECTION	INVERT ELEVATION	CROWN	MATERIAL
FES 1	24" RCP FLARED END SECTION	NONE	NONE	NONE	NONE	NONE	NONE	24	SE	OUT	860.00	862	RCP
CB 1	2.5' X 3' RECTANGULAR - DIRECT CASTING	TYPE F	R-3501-H4	862.25	856.25	6.00	2.00	24	NW	IN	858.25	860.25	RCP
								24	SE	OUT	858.25	860.25	RCP
CB-2	2.5' X 3' RECTANGULAR - DIRECT CASTING	TYPE F	R-3501-H4	862.49	855.81	6.68	2.68	24	NW	IN	857.81	859.81	RCP
								24	SE	OUT	857.81	859.81	RCP
FES 2	24" RCP FLARED END SECTION	NONE	NONE	NONE	NONE	NONE	NONE	24	SE	IN	857.07	859.07	RCP
CB 3	2' X 3' RECTANGULAR - DIRECT CASTING	TYPE H-S	R-3067-R	862.61	857.25	5.36	1.36	24	SE	OUT	859.25	861.25	RCP
								24	NW	IN	859.23	861.23	RCP
CB 4	2' X 3' RECTANGULAR - DIRECT CASTING	TYPE H-S	R-3067-R	862.87	857.23	5.64	1.64	24	SW	OUT	859.23	861.23	RCP
								24	SE	OUT	859.23	861.23	RCP
FES 3	24" RCP FLARED END SECTION	NONE	NONE	NONE	NONE	NONE	NONE	24	NW	IN	859.15	861.15	RCP
FES 4	36" RCP FLARED END SECTION	NONE	NONE	NONE	NONE	NONE	NONE	36	SE	OUT	860.00	863.00	RCP
FES 5	36" RCP FLARED END SECTION	NONE	NONE	NONE	NONE	NONE	NONE	36	SE	IN	859.00	862.00	RCP
EX 1	EXISTING 24" RCP FLARED END SECTION	NONE	NONE	NONE	NONE	NONE	NONE	24	SE	OUT	857.92	859.92	RCP
FES 6	24" RCP FLARED END SECTION	NONE	NONE	NONE	NONE	NONE	NONE	24	NW	IN	857.92	859.92	RCP

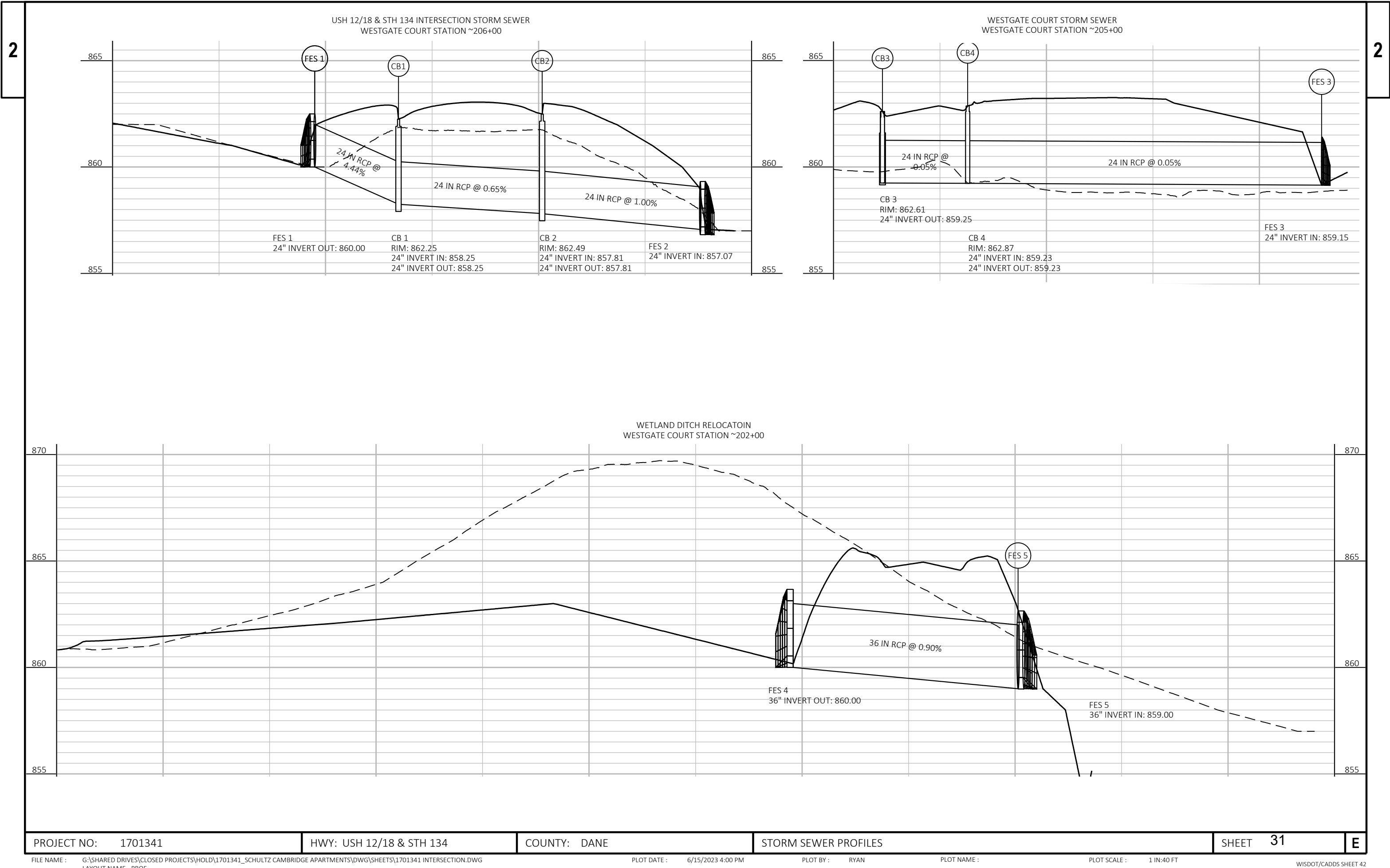
STORM SEWER PIPE DETAILS							
UPSTREAM	DOWNSTREAM	UPSTREAM	DOWNSTREAM	PIPE	SLOPE	PIPE	PIPE
FES 1	CB 1	860.00	858.25	39.42	4.44%	24"	RCP
CB 1	CB 2	858.25	857.81	67.47	0.65%	24"	RCP
CB 2	FES 2	857.81	857.07	74.24	1.00%	24"	RCP
CB 3	CB 4	859.25	859.23	40.00	0.05%	24"	RCP
CB 4	FES 3	859.23	859.15	166.18	0.05%	24"	RCP
FES 4	FES 5	860.00	859.00	111.48	0.90%	36"	RCP
EX 1	FES 6	857.96	857.92	32.00	0.13%	24"	RCP

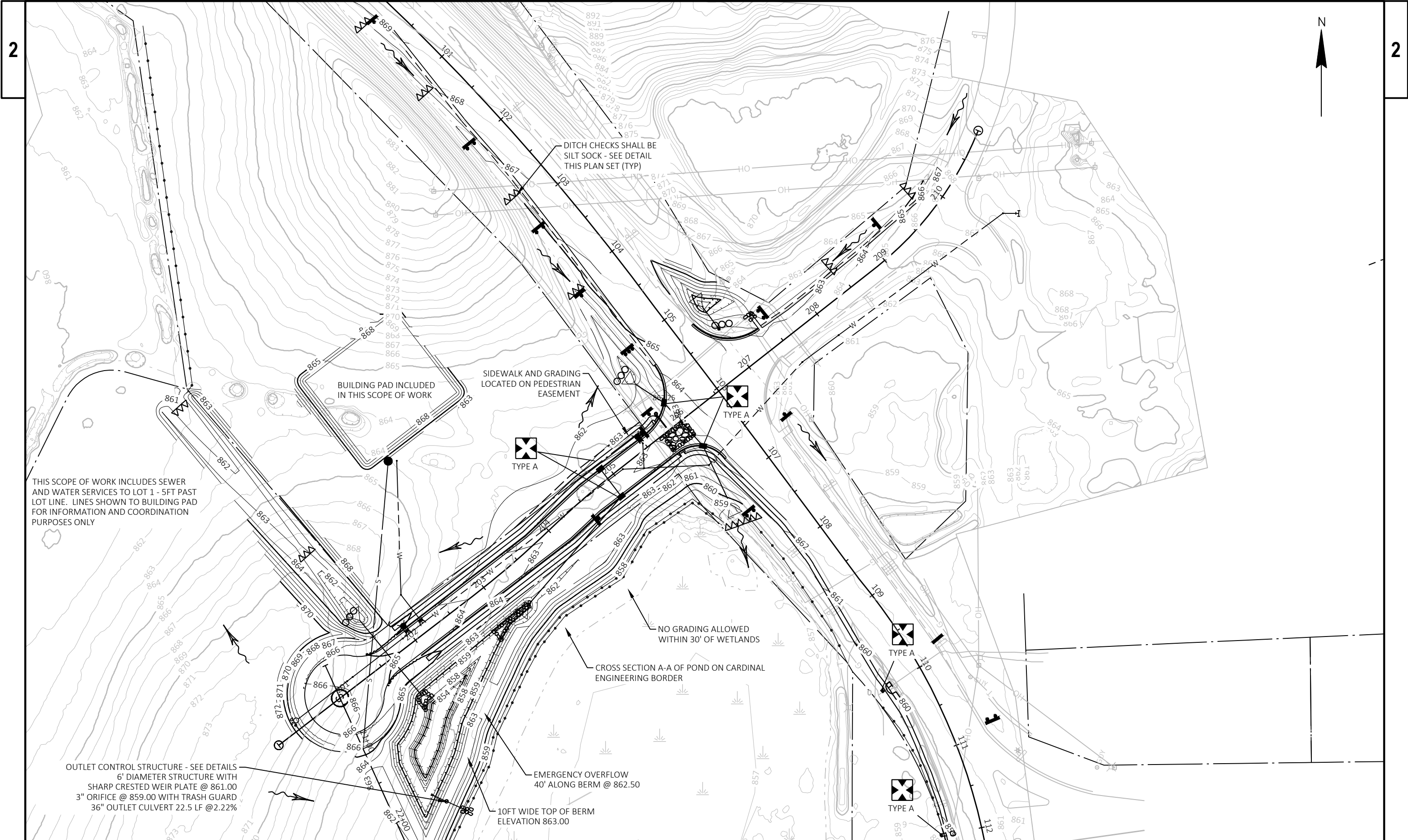
PIPE CROSSING TABLE						
CROSSING I.D.	BOTTOM OF TOP PIPE	TOP OF BOTTOM PIPE	SEPARATION (FT)	REQUIREMENT (FT)		
1	STO RCP 36"	859.46	SAN PVC 4"	858.65	0.81	MEP
2	SAN PVC 4"	857.98	WAT PVC 8"	855.89	2.10	1.50
3	STO RCP 36"	859.25	WAT PVC 8"	855.89	3.36	1.50
4	STO RCP 24"	858.99	WAT PVC 8"	855.99	3.01	1.50
5	STO RCP 24"	857.34	WAT PVC 8"	855.66	1.69	1.50

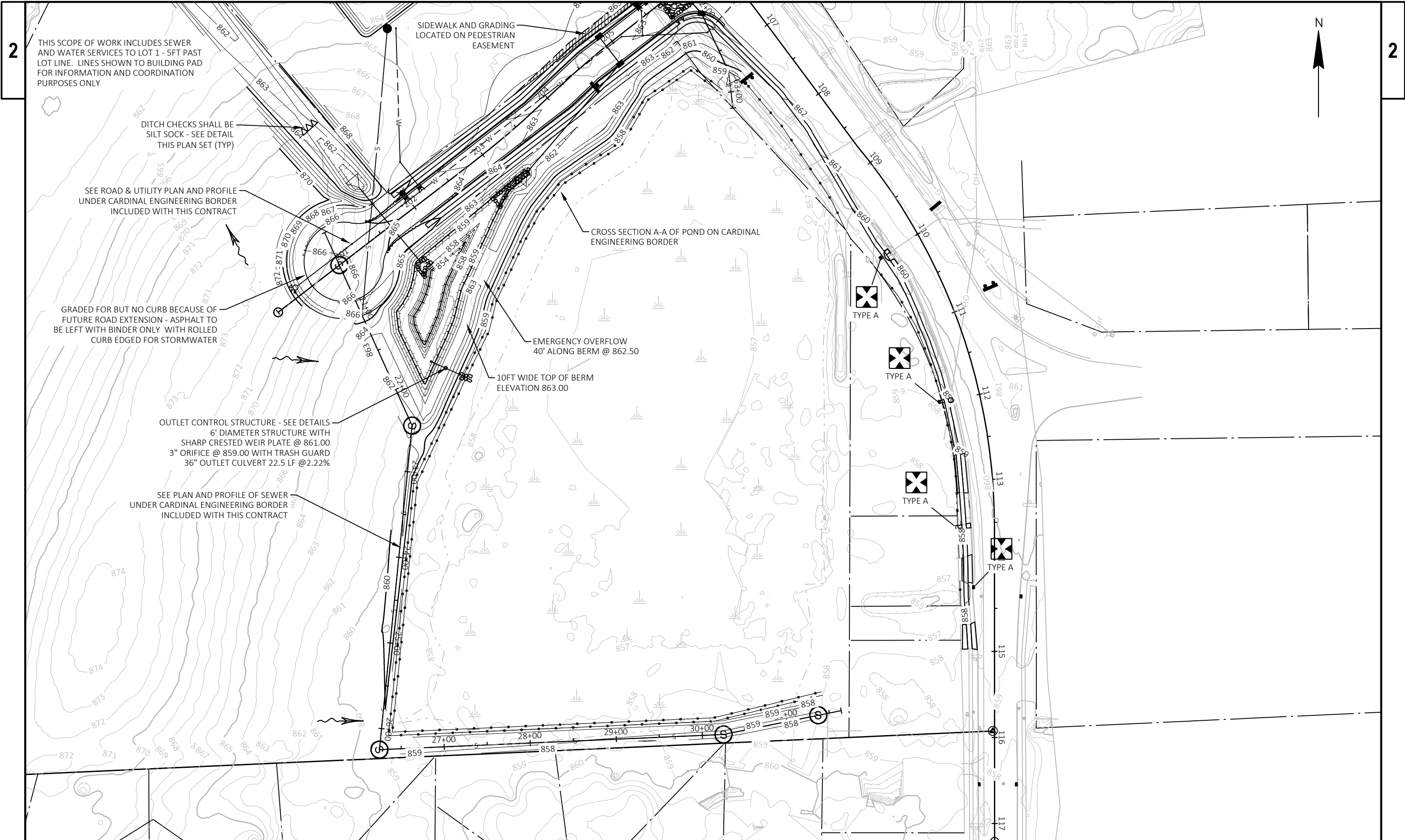
*MEP = MAXIMUM EXIST PRACTICABLE

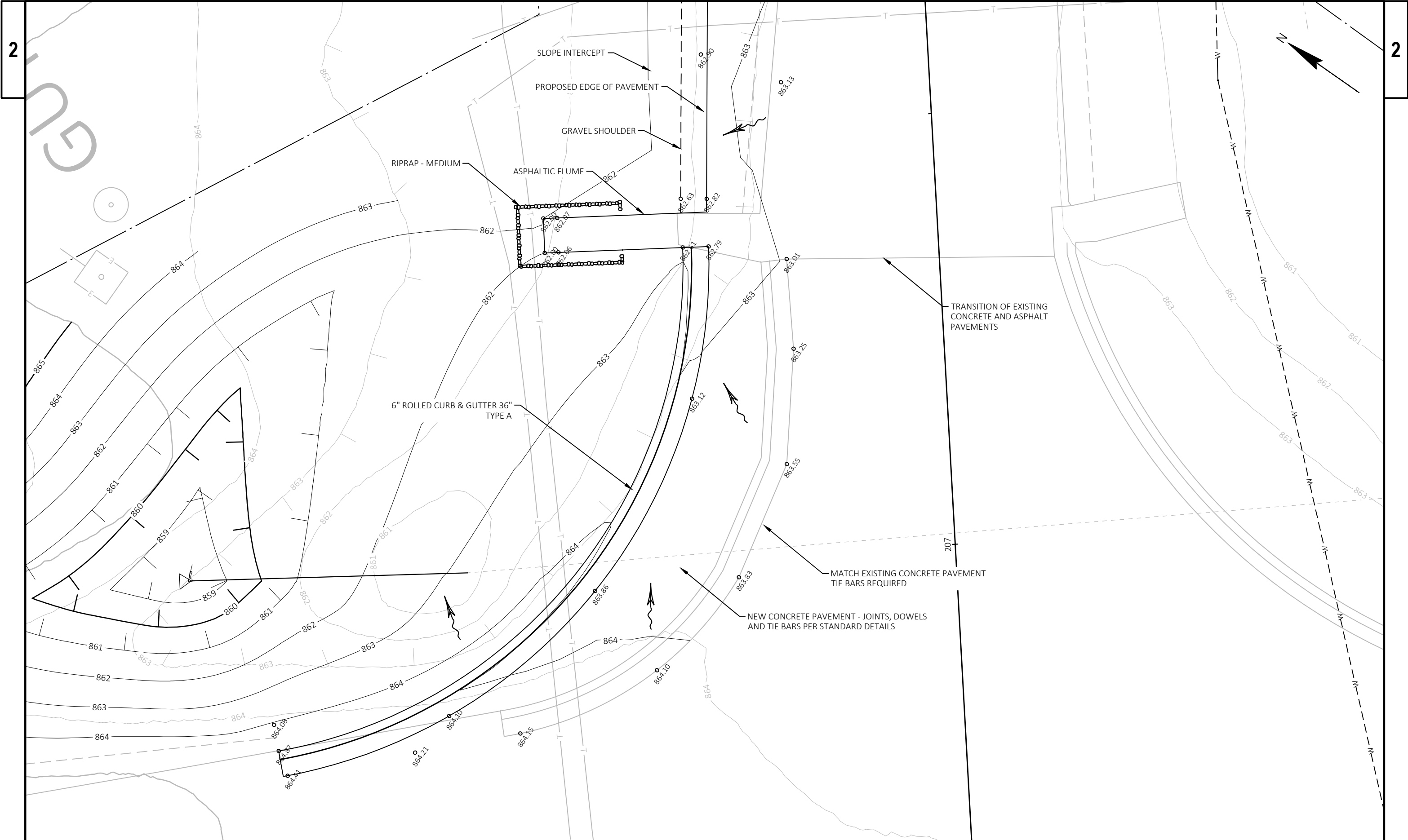
**<0.50' WHEN SEPARATION IS LESS THAN 6" ON MEP CROSSINGS, A CONCRETE CRADLE IS REQUIRED. SEE DETAIL

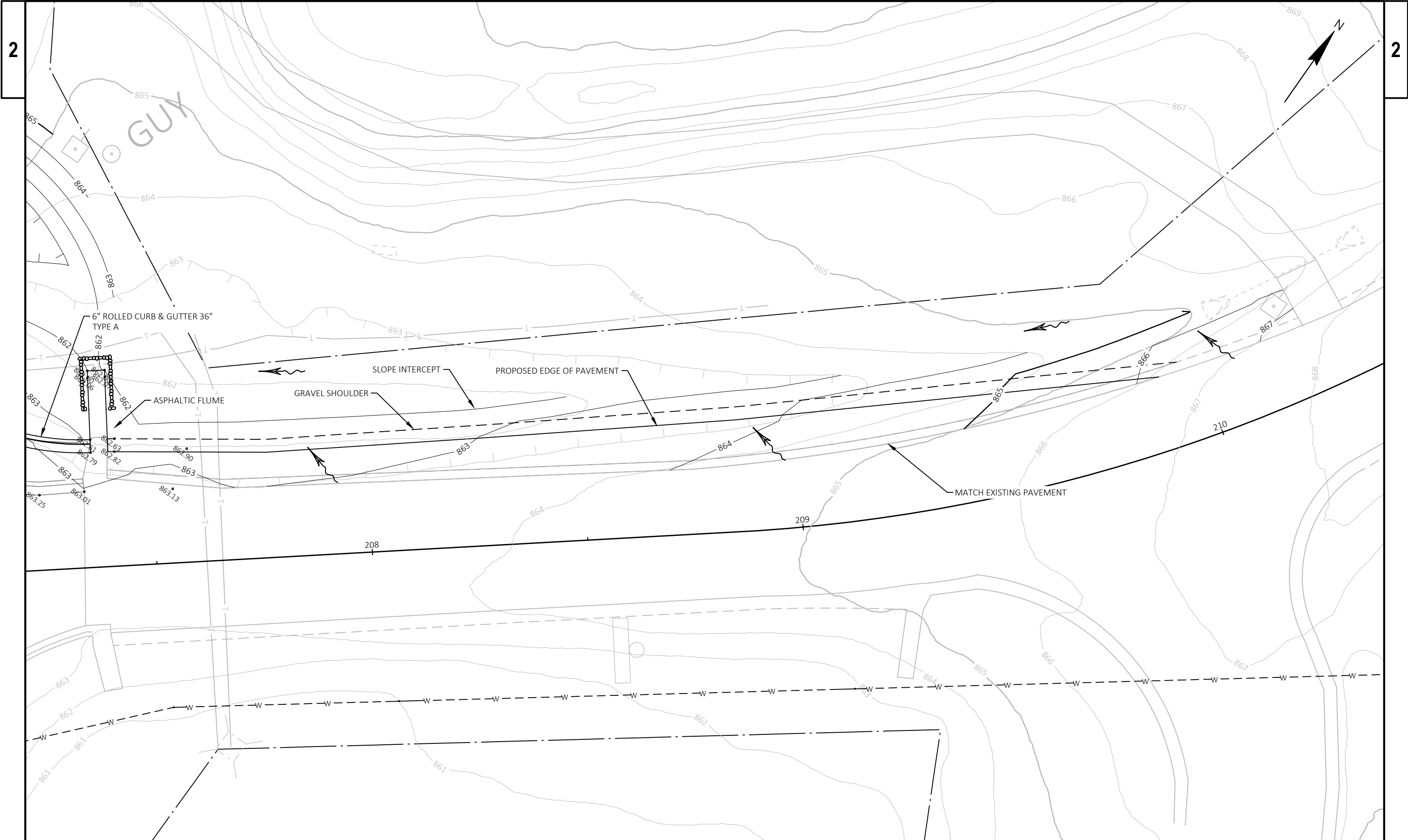


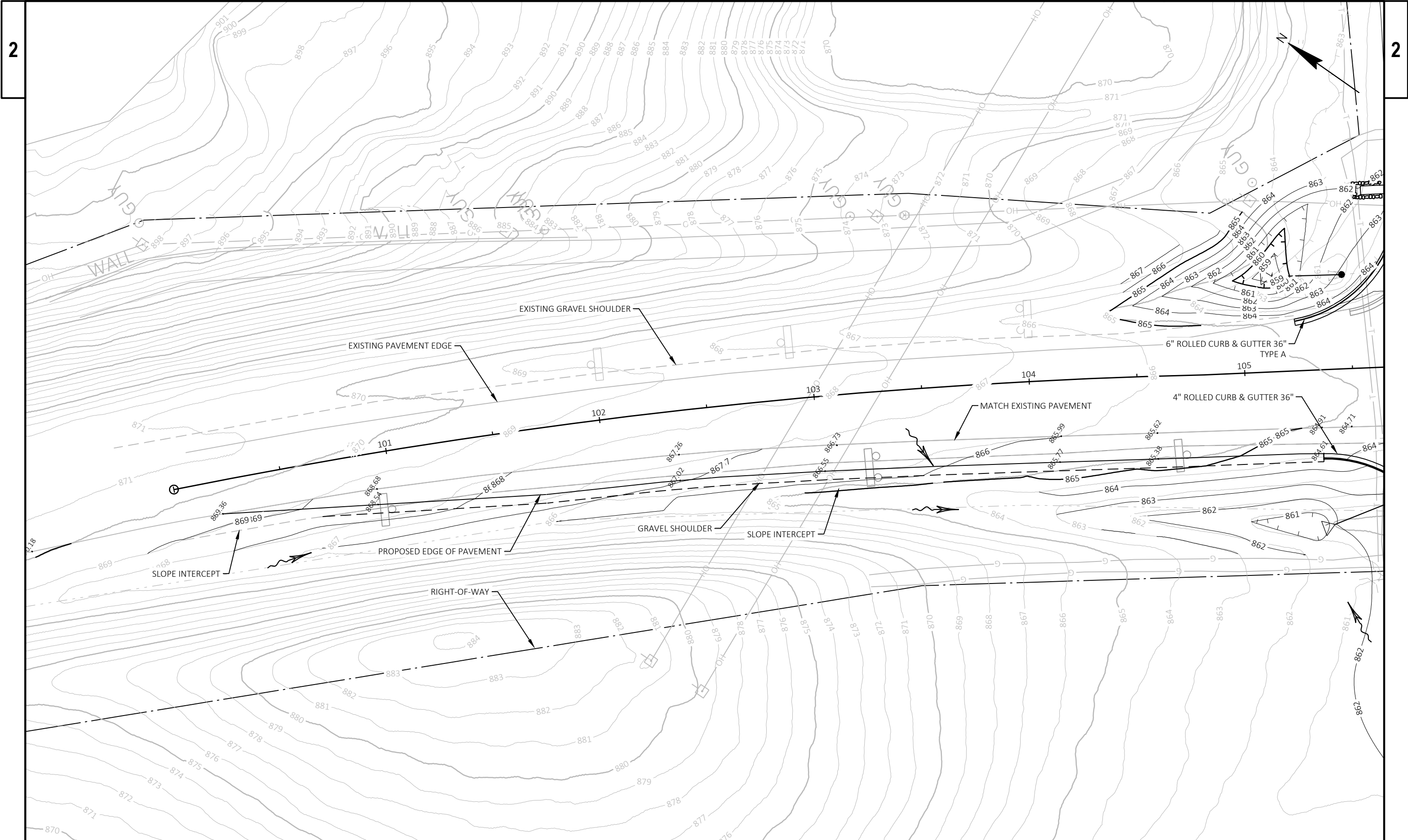


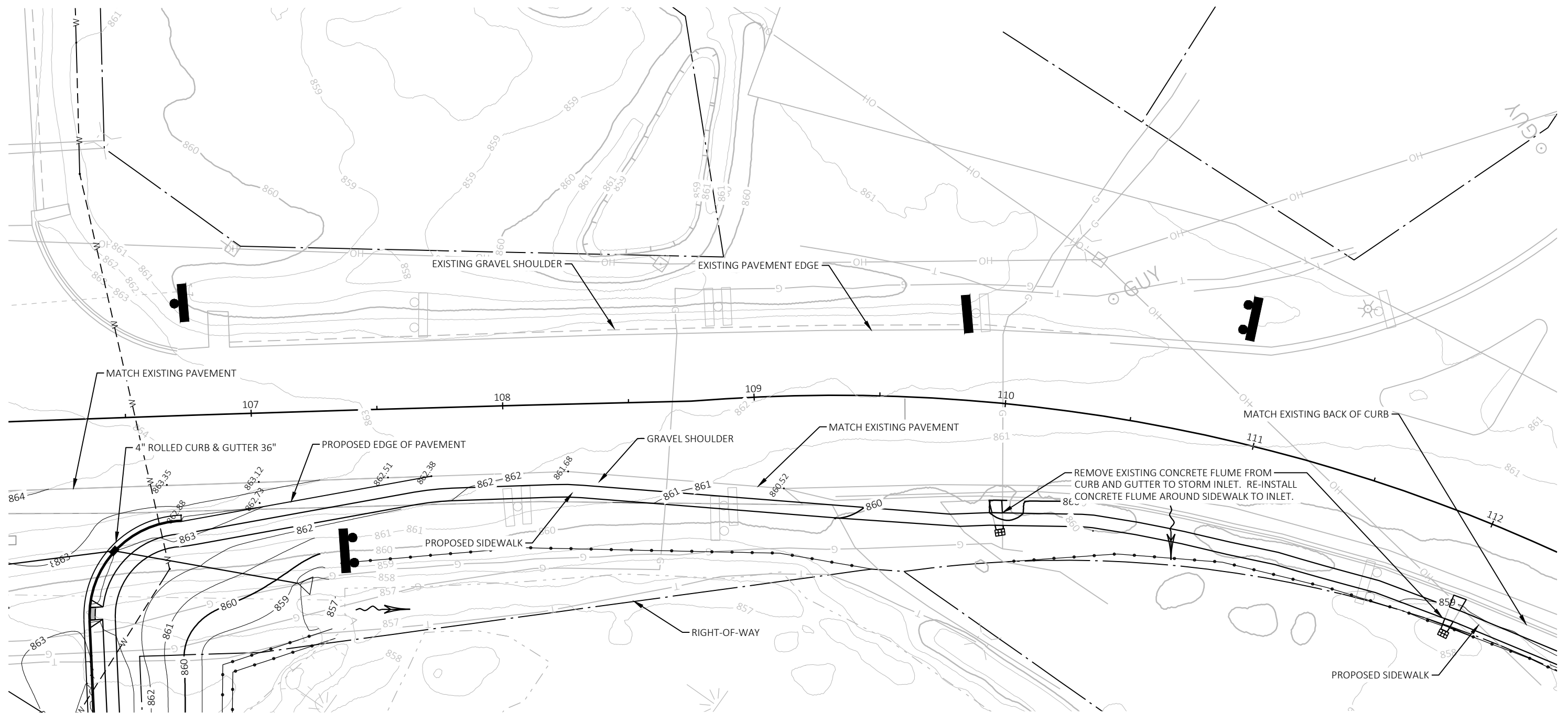












PROJECT NO: 1701341

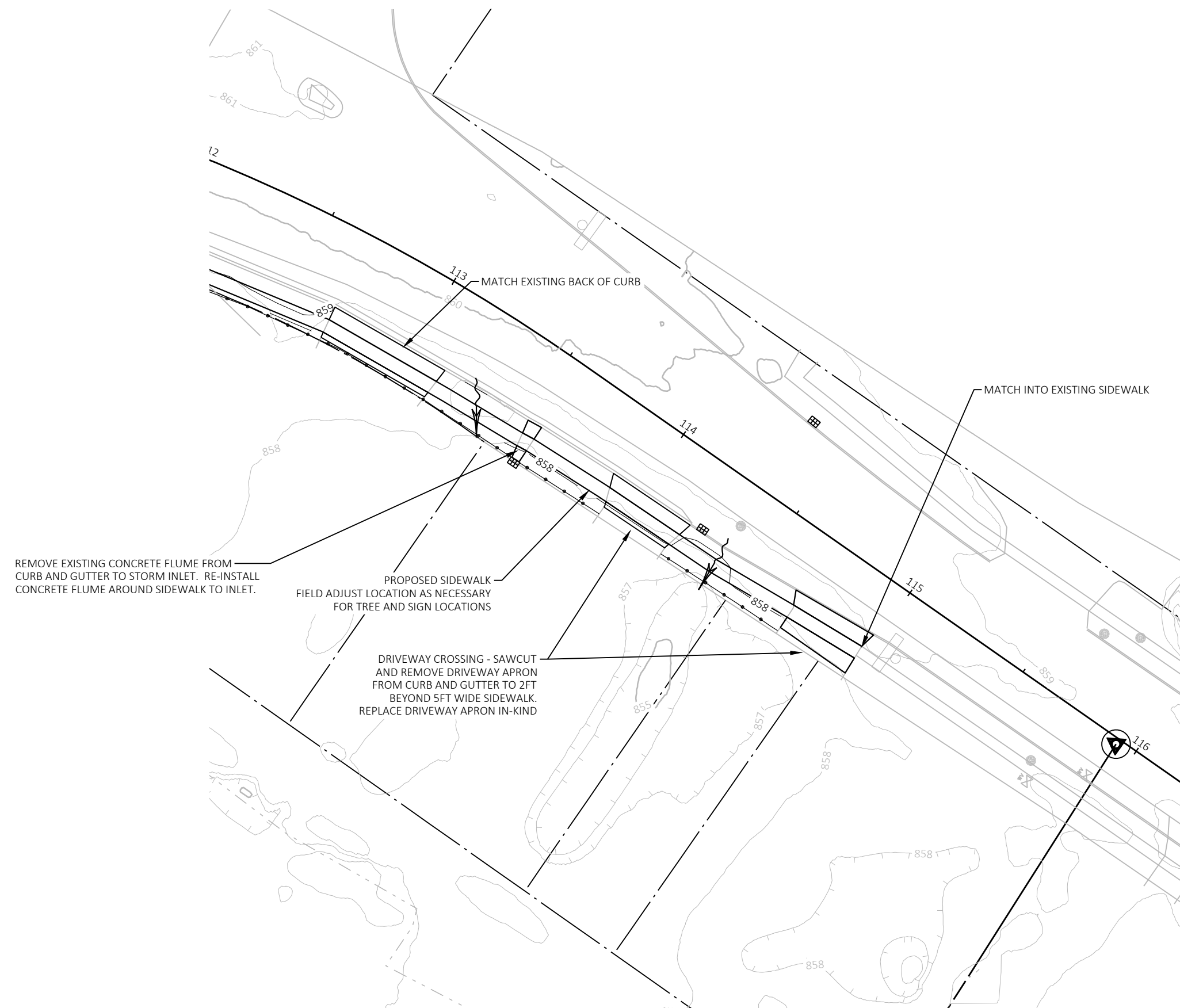
HWY: USH 12/18 & STH 134

COUNTY: DANE

GRADING DETAIL

SHEET 38

E



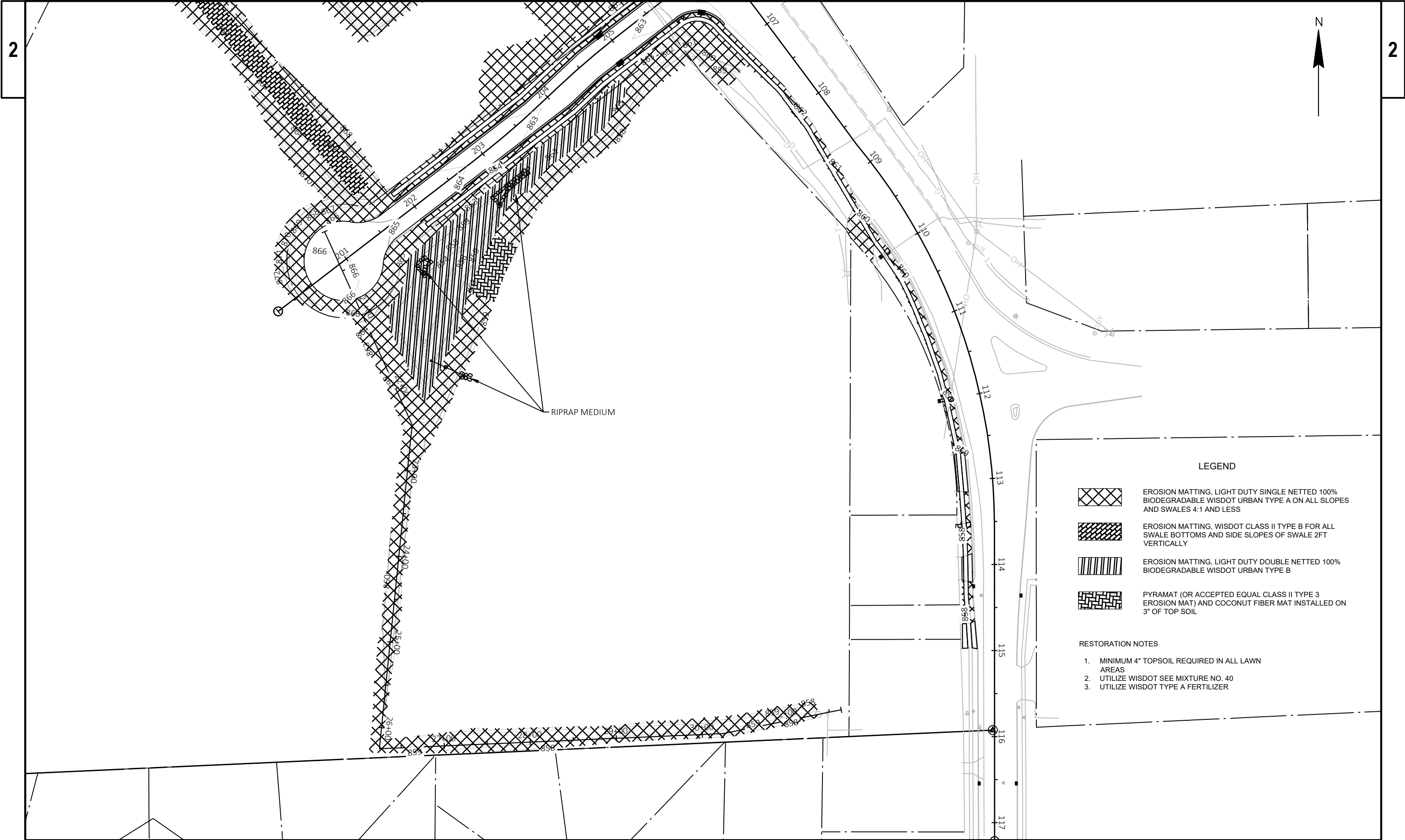


LEGEND

-  EROSION MATTING, LIGHT DUTY SINGLE NETTED 100% BIODEGRADABLE WISDOT URBAN TYPE A ON ALL SLOPES AND SWALES 4:1 AND LESS
-  EROSION MATTING, WISDOT CLASS II TYPE B FOR ALL SWALE BOTTOMS AND SIDE SLOPES OF SWALE 2FT VERTICALLY
-  EROSION MATTING, LIGHT DUTY DOUBLE NETTED 100% BIODEGRADABLE WISDOT URBAN TYPE B
-  PYRAMAT (OR ACCEPTED EQUAL CLASS II TYPE 3 EROSION MAT) AND COCONUT FIBER MAT INSTALLED ON 3" OF TOP SOIL

RESTORATION NOTES

1. MINIMUM 4" TOPSOIL REQUIRED IN ALL LAWN AREAS
2. UTILIZE WISDOT SEE MIXTURE NO. 40
3. UTILIZE WISDOT TYPE A FERTILIZER

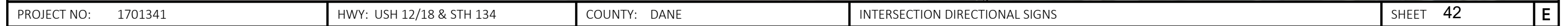


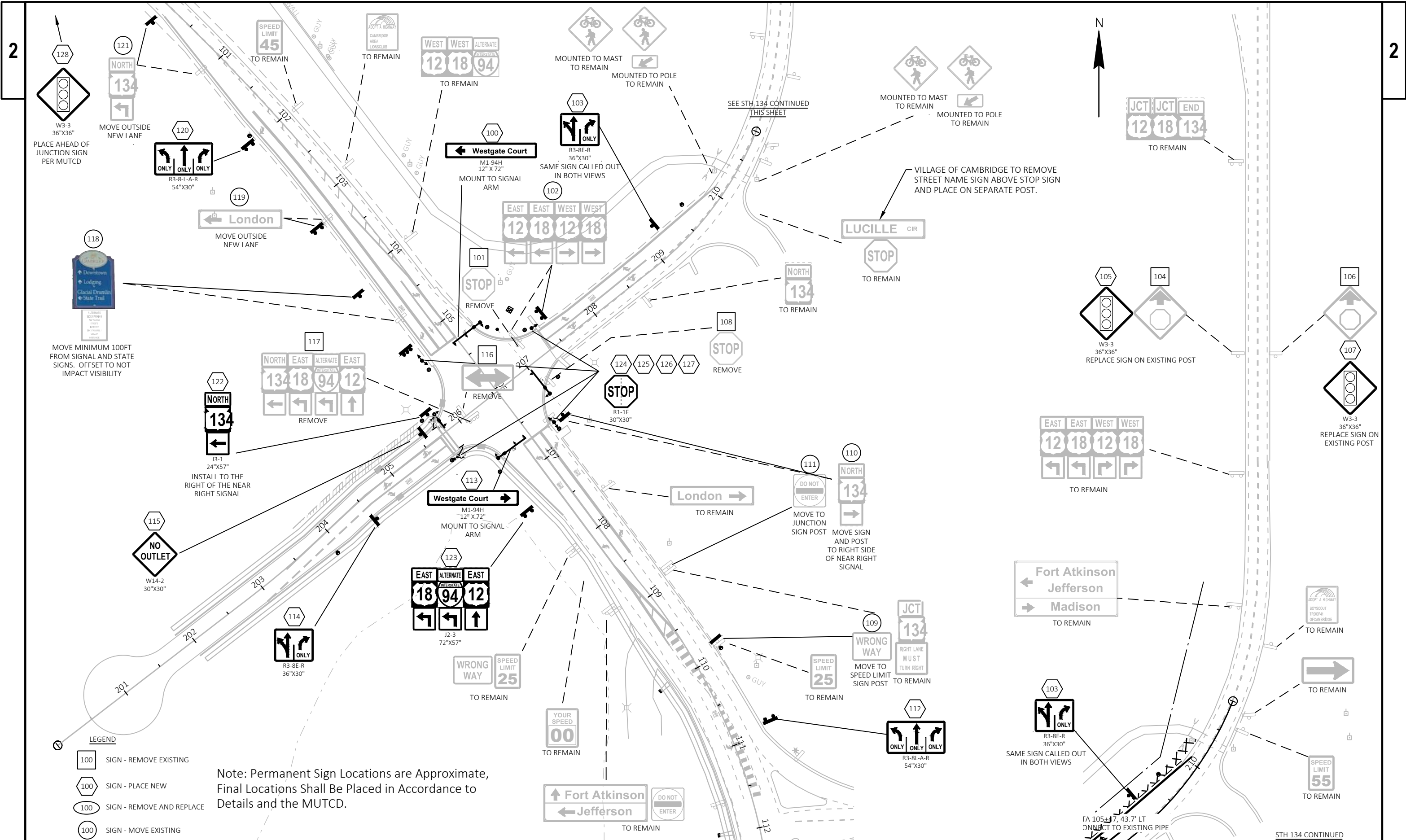
LEGEND

	EROSION MATTING, LIGHT DUTY SINGLE NETTED 100% BIODEGRADABLE WISDOT URBAN TYPE A ON ALL SLOPES AND SWALES 4:1 AND LESS
	EROSION MATTING, WISDOT CLASS II TYPE B FOR ALL SWALE BOTTOMS AND SIDE SLOPES OF SWALE 2FT VERTICALLY
	EROSION MATTING, LIGHT DUTY DOUBLE NETTED 100% BIODEGRADABLE WISDOT URBAN TYPE B
	PYRAMAT (OR ACCEPTED EQUAL CLASS II TYPE 3 EROSION MAT) AND COCONUT FIBER MAT INSTALLED ON 3" OF TOP SOIL

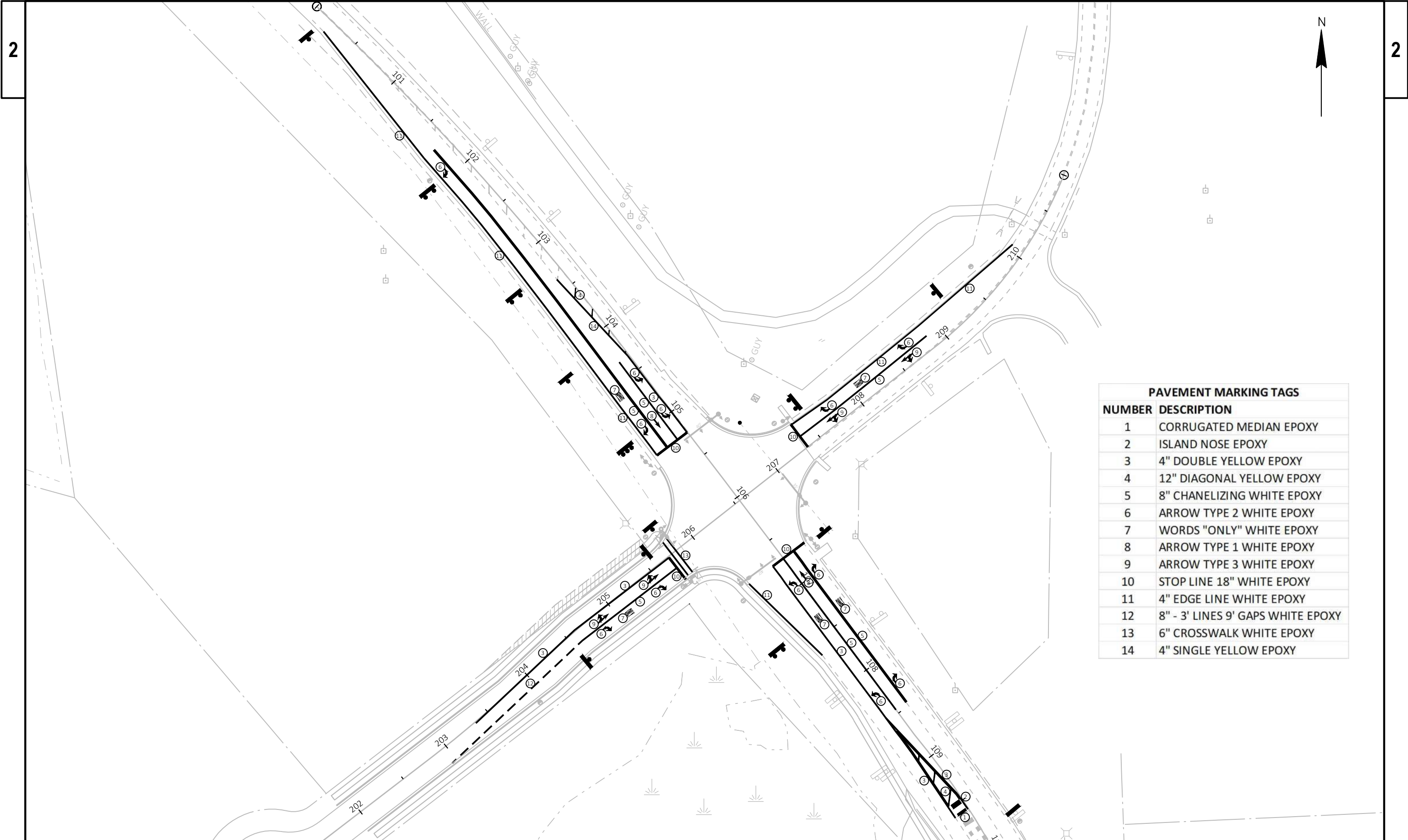
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SIGN NUMBER	SIGN CODE	SIZE		634.0614 POSTS WOOD 4X6X14 (EACH)	634.0616 POSTS WOOD 4X6X16 (EACH)	637.2210 SIGNS TYPE II REFLECTIVE H (SF)	637.2230 SIGNS TYPE II REFLECTIVE F (SF)	638.2102 MOVING SIGNS TYPE II (EACH)	638.2602 REMOVING SIGNS TYPE II (EACH)	638.3000 REMOVING SMALL SIGN SUPPORTS (EACH)	COMMENTS
100	M1-94H	12	X 72	--	--	6	--	--	--	--	"WESTGATE COURT" MOUNT TO SIGNAL ARM
101	R1-1	30	X 30	--	--	--	--	--	1	1	
102	J3-4	96	X 57	--	--	--	--	1	--	--	MOVE TO CORRECT LOCATION WITH NEW SIGNALIZED INTERSECTION
103	R3-8E-R	36	X 30	1	--	7.5	--	--	--	--	
104	W3-1	36	X 36	--	--	--	--	--	1	--	
105	W3-3	36	X 36	--	--	--	9	--	--	--	INSTALL ON EXISTING POLL THAT SIGN # 104 WAS REMOVED FROM
106	W3-1	36	X 36	--	--	--	--	--	1	--	
107	W3-3	36	X 36	--	--	--	9	--	--	--	INSTALL ON EXISTING POLL THAT SIGN # 106 WAS REMOVED FROM
108	R1-1	30	X 30	--	--	--	--	--	1	1	
109	R5-1a	18	X 30	--	--	--	--	1	--	--	MOVE WRONG FROM DIRECTIONAL TO SPEED LIMIT POST
110	J3-1	24	X 57	--	--	--	--	1	--	--	MOVE POST AND DIRECTIONAL SIGN TO RIGHT SIDE OF NEAR RIGHT SIGNAL
111	R5-1	30	X 30	--	--	--	--	1	--	--	EXISTS ON SAME POST AS # 110. MOVE TO EXISTING JUNCTION POST
112	R3-8L-A-R	54	X 30	2	--	11.25	--	--	--	--	
113	M1-94H	12	X 72	--	--	6	--	--	--	--	"WESTGATE COURT" MOUNT TO SIGNAL ARM
114	R3-8E-R	36	X 30	1	--	7.5	--	--	--	--	
115	W14-2	30	X 30	1	--	--	6.25	--	--	--	
116	W1-7	48	X 24	--	--	--	--	--	1	1	
117	J3-4	96	X 57	--	--	--	--	--	1	3	REMOVE DIRECTIONAL SIGN
118	N/A	-	X -	--	--	--	--	1	--	--	MOVE POST AND LOCAL SIGNS AS NOTED ON PLANS
119	D1-1	12	X 54	--	--	--	--	1	--	--	MOVE OUTSIDE NEW TURN LANE
120	R3-8-L-A-R	54	X 30	--	2	11.25	--	--	--	--	
121	J2-1	24	X 57	--	--	--	--	1	--	--	MOVE POST AND SIGN OUTSIDE NEW TURN LANE
122	J3-1	24	X 57	1	--	9.9	--	--	--	--	NEW DIRECTIONAL INSTALLED TO THE RIGHT OF THE NEAR RIGHT SIGNAL
123	J2-3	72	X 57	2	--	28.5	--	--	--	--	NEW DIRECTIONAL ON TWO POSTS
124	R1-1F	30	X 30	--	--	6.25	--	--	--	--	INSTALL ON RIGH SIDE SIGNAL. MOUNT AT 5FT TO BOTTOM OF SIGN
125	R1-1F	30	X 30	--	--	6.25	--	--	--	--	INSTALL ON RIGH SIDE SIGNAL. MOUNT AT 5FT TO BOTTOM OF SIGN
126	R1-1F	30	X 30	--	--	6.25	--	--	--	--	INSTALL ON RIGH SIDE SIGNAL. MOUNT AT 5FT TO BOTTOM OF SIGN
127	R1-1F	30	X 30	--	--	6.25	--	--	--	--	INSTALL ON RIGH SIDE SIGNAL. MOUNT AT 5FT TO BOTTOM OF SIGN
TOTALS				8	2	112.9	24.25	7	6	6	



PAVEMENT MARKING TAGS	
NUMBER	DESCRIPTION
1	CORRUGATED MEDIAN EPOXY
2	ISLAND NOSE EPOXY
3	4" DOUBLE YELLOW EPOXY
4	12" DIAGONAL YELLOW EPOXY
5	8" CHANELIZING WHITE EPOXY
6	ARROW TYPE 2 WHITE EPOXY
7	WORDS "ONLY" WHITE EPOXY
8	ARROW TYPE 1 WHITE EPOXY
9	ARROW TYPE 3 WHITE EPOXY
10	STOP LINE 18" WHITE EPOXY
11	4" EDGE LINE WHITE EPOXY
12	8" - 3' LINES 9' GAPS WHITE EPOXY
13	6" CROSSWALK WHITE EPOXY
14	4" SINGLE YELLOW EPOXY

201.0115							
201.0115 CLEARING ACRE							
CATEGORY	STATION	TO	STATION	LOCATION		REMARKS	
0010	200+00	-	206+50	WESTGATE COURT	2	PREPARE FOR NEW WESTGATE COURT	
				TOTAL 0010	2		
201.0215							
201.0215 GRUBBING ACRE							
CATEGORY	STATION	TO	STATION	LOCATION		REMARKS	
0010	200+00	-	206+50	WESTGATE COURT	2	PREPARE FOR NEW WESTGATE COURT	
				TOTAL 0010	2		
203.0100							
* 203.0100 REMOVING SMALL PIPE CULVERTS EACH							
CATEGORY	STATION	TO	STATION	LOCATION		REMARKS	
0010	202+20, 350' L	-	202+20, 350' L	DITCH RELOCATION	1	DITCH RELOCATION	
				TOTAL 0010	1		
204.0100							
* 204.0100 REMOVING CONCRETE PAVEMENT SY							
CATEGORY	STATION	TO	STATION	LOCATION		REMARKS	
0010	108+86	-	109+60	STH 12/18	975	REMOVAL OF CORRUGATED MEDIAN	
0010	110+00	-	110+00	STH 12/18 FLUME	50	REMOVE FLUME FOR SIDEWALK	
0010	112+00	-	112+00	STH 12/18 FLUME	58	REMOVE FLUME FOR SIDEWALK	
0010	113+54	-	113+54	STH 12/18 FLUME	64	REMOVE FLUME FOR SIDEWALK	
0010	114+69	-	114+67	USH 12/18 DRIVEWAY	465	REMOVE DRIVEWAY FOR SIDEWALK	
				TOTAL 0010	1,612		
204.0110							
* 204.0110 REMOVING ASPHALTIC SURFACE SY							
CATEGORY	STATION	TO	STATION	LOCATION		REMARKS	
0010	207+36	-	207+36	NW QUADRANT	5	REMOVE EXISTING FLUME	
0010	109+35	-	109+85	STH 12/18 DRIVEWAY	520	DRIVEWAY REMOVAL	
0010	112+67	-	113+13	STH 12/18 DRIVEWAY	536	DRIVEWAY REMOVAL	
0010	113+92	-	114+18	STH 12/18 DRIVEWAY	360	DRIVEWAY REMOVAL	
				TOTAL 0010	1,421		

204.0150						
* 204.0150 REMOVING CURB & GUTTER						
CATEGORY	STATION	TO	STATION	LOCATION	LF	REMARKS
0010	105+24	-	105+75	NW QUADRANT	70	
				TOTAL 0010	70	
205.0100						
205.0100 EXCAVATION COMMON						
CATEGORY	STATION	TO	STATION	LOCATION	CY	REMARKS
0010	207+36	-	210+07	STH 134 WEST EDGE	20	STH 134 WEST SHOULDER REMOVAL
0010	100+20	-	107+70	USH 12/18 SOUTH EDGE	230	USH 12/18 SOUTH EDGE CREATE BUTT JOINT
				TOTAL 0010	250	
646.1020						
646.1020 MARKING LINE EPOXY 4-INCH						
CATEGORY	STATION	TO	STATION	LOCATION	LF	REMARKS
0010	106+71	-	109+60	USH 12/18 SE NB	749	CENTERLINE DOUBLE YELLOW
0010	106+70	-	107+65	USH 12/18 SE SB	95	WHITE EDGE MARKING
0010	203+35	-	205+71	WESTGATE COURT EB	236	CENTERLINE DOUBLE YELLOW
0010	100+20	-	105+24	USH 12/18 NW SB	504	WHITE EDGE MARKING
0010	105+38	-	105+24	USH 12/18 NW SB	277	CENTERLINE SINGLE AND DOUBLE YELLOW
0010	207+36	-	210+07	STH 134 WB	265	WHITE EDGE MARKING
				TOTAL 0010	2,126	
646.3020						
646.3020 MARKING LINE EPOXY 8-INCH						
CATEGORY	STATION	TO	STATION	LOCATION	LF	REMARKS
0010	106+71	-	108+46	USH 12/18 SE NB LEFT TURN	175	LEFT TURN CHANNELIZING
0010	106+71	-	108+46	USH 12/18 SE NB RIGHT TURN	175	RIGHT TURN CHANNELIZING
0010	202+95	-	205+71	WESTGATE CT EB RIGHT TURN	165	DASHED AND SOLID CHANNELIZING
0010	101+74	-	105+24	USH 12/18 NW SB RIGHT TURN	350	RIGHT TURN CHANNELIZING
0010	104+34	-	105+24	USH 12/18 NW SB LEFT TURN	190	LEFT TURN CHANNELIZING
0010	207+36	-	208+86	STH 134 WB RIGHT TURN	150	RIGHT TURN CHANNELIZING
				TOTAL 0010	1,205	

646.5020						
646.5020 MARKING ARROW EPOXY EACH						
CATEGORY	STATION	TO	STATION	LOCATION	EACH	REMARKS
0010	106+95	-	108+23	USH 12/18 SE NB LEFT TURN	2	LEFT TURN TYPE 2 ARROWS
0010	106+95	-	108+23	USH 12/18 SE NB RIGHT TURN	2	RIGHT TURN TYPE 2 ARROWS
0010	106+94	-	106+94	USH12/18 SE NB	1	NORTH BOUND TYPE 1 ARROW
0010	204+82	-	205+50	WESTGATE CT EB STRAIGHT/LEFT	2	STRAIGHT/LEFT TYPE 3 ARROWS
0010	204+82	-	205+50	WESTGATE CT EB RIGHT TURN	2	RIGHT TURN TYPE 2 ARROWS
0010	101+95	-	105+00	USH 12/18 NW SB RIGHT TURN	2	RIGHT TURN TYPE 2 ARROWS
0010	104+55	-	105+00	USH 12/18 NW SB LEFT TURN	2	LEFT TURN TYPE 2 ARROWS
0010	105+00	-	105+00	USH 12/18 NW SB	1	SOUTH BOUND TYPE 1 ARROW
0010	207+70	-	208+64	STH 134 WB RIGHT TURN	2	RIGHT TURN TYPE 2 ARROWS
0010	207+70	-	208+64	STH 134 WB STRAIGHT/LEFT	2	STRAIGHT/LEFT TYPE 3 ARROWS
TOTAL 0010					18	
646.5120						
646.5120 MARKING WORD EPOXY EACH						
CATEGORY	STATION	TO	STATION	LOCATION	EACH	REMARKS
0010	107+35	-	107+35	USH 12/18 SE NB LEFT TURN	1	LEFT TURN LANE "ONLY"
0010	107+35	-	107+35	USH 12/18 SE NB RIGHT TURN	1	RIGHT TURN LANE "ONLY"
0010	205+10	-	205+10	WESTGATE CT EB RIGHT TURN	1	RIGHT TURN LANE "ONLY"
0010	104+60	-	104+60	USH 12/18 NW SB RIGHT TURN	1	RIGHT TURN LANE "ONLY"
0010	208+10	-	208+10	STH134 WB RIGHT TURN	1	RIGHT TURN LANE "ONLY"
TOTAL 0010					5	
646.6120						
646.6120 MARKING STOP LINE EPOXY 18- INCH LF						
CATEGORY	STATION	TO	STATION	LOCATION	LF	REMARKS
0010	106+71	-	106+71	USH 12/18 SE NB	37	NORTHBOUND STOP LINE
0010	205+70	-	205+70	WESTGATE CT EB	26	EASTBOUND STOP LINE
0010	105+24	-	105+24	USH 12/18 NW SB	35	SOUTHBOUND STOP LINE
0010	207+36	-	207+36	STH 134 WB	27	WESTBOUND STOP LINE
TOTAL 0010					125	
646.7120						
646.7120 MARKING DIAGONAL EPOXY 12-INCH LF						
CATEGORY	STATION	TO	STATION	LOCATION	LF	REMARKS
0010	108+65	-	109+50	USH 12/18 SE MEDIAN	16	YELLOW MEDIAN DIAGONALS
0010	103+54	-	104+30	USH 12/18 NW MEDIAN	25	YELLOW MEDIAN DIAGONALS
TOTAL 0010					41	

646.7420						
646.7420 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH LF						
CATEGORY	STATION	TO	STATION	LOCATION	LF	REMARKS
0010	205+75	-	207+75	WESTGATE COURT	80	CROSSWALK
TOTAL 0010					80	
646.8020						
646.8020 MARKING CORRUGATED MEDIAN EPOXY SF						
CATEGORY	STATION	TO	STATION	LOCATION	SF	REMARKS
0010	109+60	-	109+60	USH 12/18 SE MEDIAN	20	REPLACE CORRUGATED MEDIAN
TOTAL 0010					20	
646.8220						
646.8220 MARKING ISLAND NOSE EPOXY EACH						
CATEGORY	STATION	TO	STATION	LOCATION	EACH	REMARKS
0010	109+50	-	109+50	USH 12/18 SE MEDIAN	36	REPLACE CORRUGATED MEDIAN
TOTAL 0010					36	
646.9000						
646.9000 MARKING REMOVAL LINE 4-INCH LF						
CATEGORY	STATION	TO	STATION	LOCATION	LF	REMARKS
0010	105+24	-	105+50	SW QUAD EDGE MARKING	30	NORTH BOUND OF 12/18
0010	207+36	-	210+07	STH 134 WEST EDGE MARKING	265	SOUTHBOUND OF 134
0010	207+00	-	207+35	STH 134 CENTER	70	35 LF OF DOUBLE YELLOW ON 134
0010	106+49	-	109+60	USH 12/18 MEDIAN	610	YELLOW MEDIAN CENTERLINE
0010	100+20	-	107+70	USH 12/18 SOUTH EDGE	750	USH 12/18 SOUTH EDGE MARKING
0010	103+35	-	105+75	USH/128 CENTERLINE	290	USH 12/18 CENTERLINE REMOVAL
TOTAL 0010					2,015	

646.9100

646.9100
MARKING
REMOVAL LINE 8-
INCH
LF

CATEGORY	STATION	TO	STATION	LOCATION	LF	REMARKS
0010	106+56	-	108+46	NB USH 12/18	190	8" CHANNELIZING ON NORTHBOUND 12/18
0010	105+00	-	105+00	SB USH 12/18	70	8" CHANNELIZING ON SOUTHBOUND 12/18
				TOTAL 0010	260	

646.9200

646.9200
MARKING
REMOVAL LINE
WIDE
LF

CATEGORY	STATION	TO	STATION	LOCATION	LF	REMARKS
0010	207+00	-	207+00	STH 134	25	EXISTING STOP LINE ON 134
0010	106+49	-	108+86	USH 12/18 MEDIAN	180	USH 12/18 MEDIAN DIAGONALS
0010	103+35	-	105+00	USH/128 CENTERLINE	36	USH 12/18 MEDIAN DIAGONALS
				TOTAL 0010	241	

646.9300

646.9300
MARKING
REMOVAL
SPECIAL
MARKING
EACH

CATEGORY	STATION	TO	STATION	LOCATION	EACH	REMARKS
0010	106+93	-	106+93	USH 12/18 NB RIGHT TURN LANE	1	RIGHT TURN ARROW
0010	107+37	-	107+37	USH 12/18 NB RIGHT TURN LANE	1	ONLY WORD
0010	105+15	-	105+15	USH 12/18 SB LEFT TURN LANE	1	ONLY WORD
0010	105+55	-	105+55	USH 12/18 SB LEFT TURN LANE	1	LEFT TURN ARROW
				TOTAL 0010	4	

690.0150

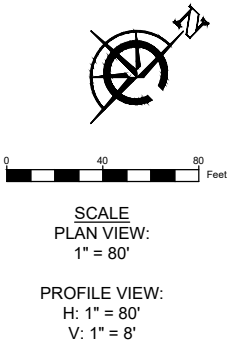
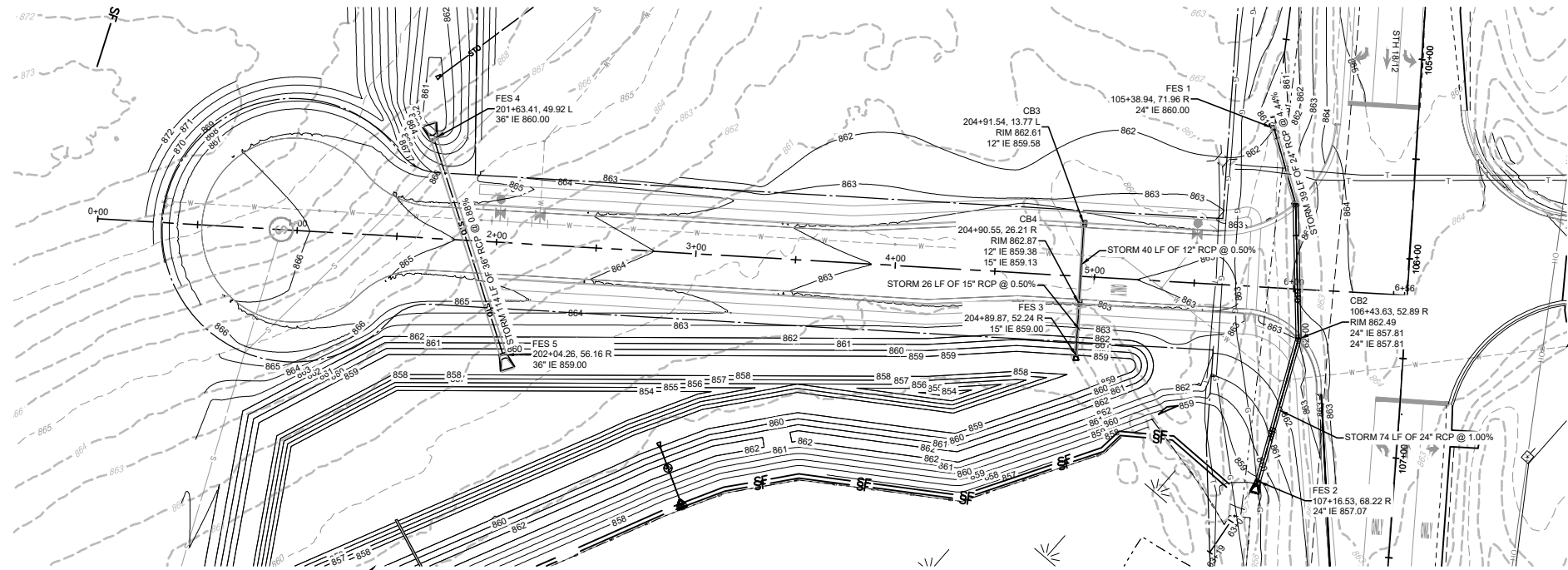
690.0150
SAWING
ASPHALT
LF

CATEGORY	STATION	TO	STATION	LOCATION	LF	REMARKS
0010	207+36	-	210+07	STH 134 WEST EDGE	250	STH 134 WEST EDGE CREATE BUTT JOINT
0010	109+35	-	109+85	STH 12/18 DRIVEWAY	50	CUT FOR SIDEWALK INSTALLATION
0010	112+67	-	113+13	STH 12/18 DRIVEWAY	43	CUT FOR SIDEWALK INSTALLATION
0010	113+92	-	114+18	STH 12/18 DRIVEWAY	27	CUT FOR SIDEWALK INSTALLATION
				TOTAL 0010	370	

690.0250

690.0250
SAWING
CONCRETE
LF

CATEGORY	STATION	TO	STATION	LOCATION	LF	REMARKS
0010	108+86	-	109+60	STH 12/18	175	FOR REMOVAL OF CORRUGATED MEDIAN
0010	100+20	-	107+70	USH 12/18 SOUTH EDGE	750	USH 12/18 SOUTH EDGE CREATE BUTT JOINT
				TOTAL 0010	925	

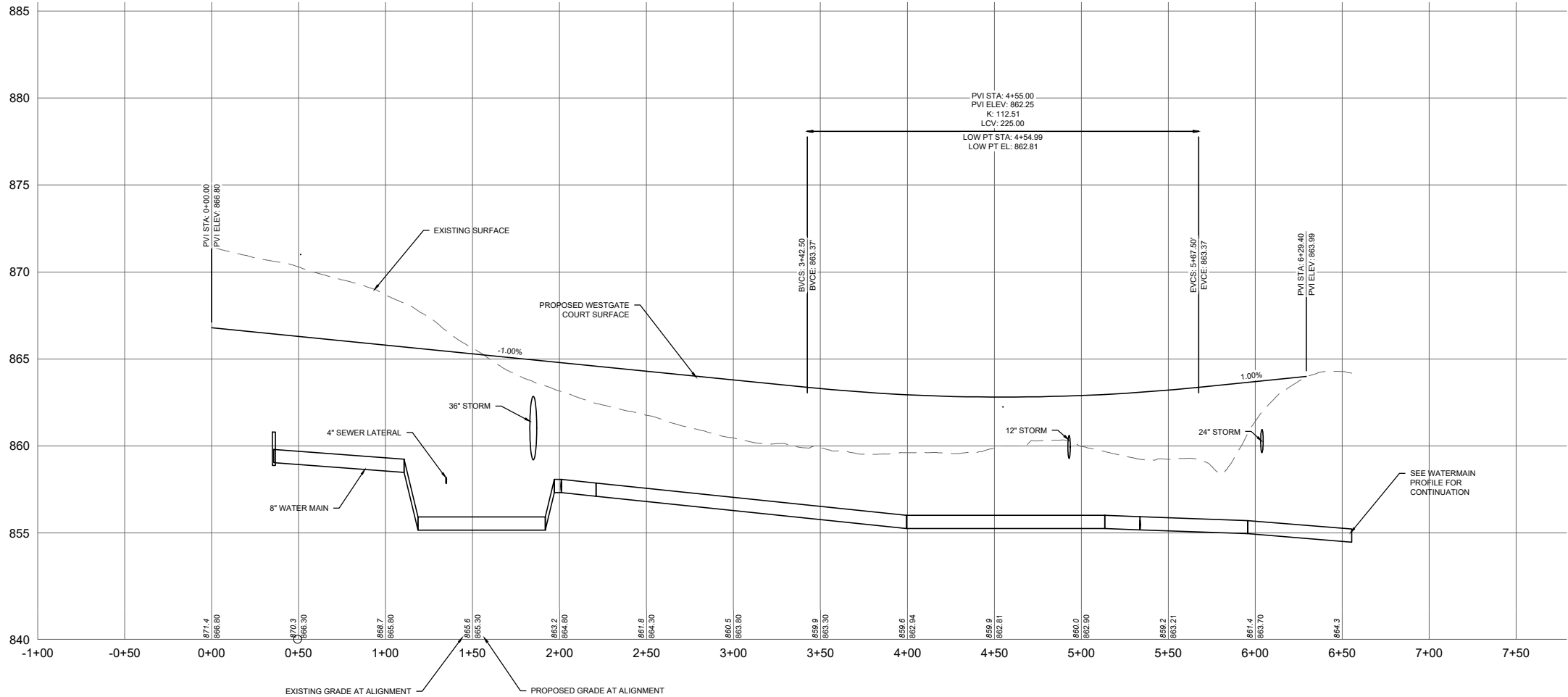


SEE WATERMAIN PROFILE FOR CONTINUATION

NOTE: CURB AND GUTTER INLET RIM GRADES SHOWN ARE TO THE FLOW LINE OF THE GUTTER, UNLESS SPECIFIED OTHERWISE.

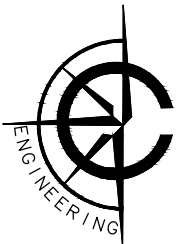
SEE SANITARY SEWER PROFILE FOR CONTINUATION

WESTGATE COURT CENTERLINE PROFILE AND UTILITIES



CLIENT
CAMBRIDGE
REAL ESTATE
VENTURES LLC

WESTGATE COMMERCIAL DEVELOPMENT
VILLAGE OF CAMBRIDGE DANE COUNTY, WI
ROAD PLAN & PROFILE
REVIEW



CARDINAL ENGINEERING LLC
DESIGNING IN TRUE DIRECTIONS

1200 LA SALLE STREET
LAKE GENEVA, WI 53147
262-757-8776
CARDINALENGINEERINGWI.COM

NO.	REVISION DESCRIPTION	REV DATE

SCALE	1" = 80' (HALF SIZE)
PROJECT NUMBER	1701341
DATE	02/06/2023
PROJECT MGR	RYAN CARDINAL, PE
DRAWN BY	EJO
DESIGNED BY	RWC

SHEET NUMBER

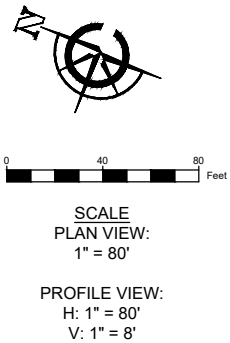
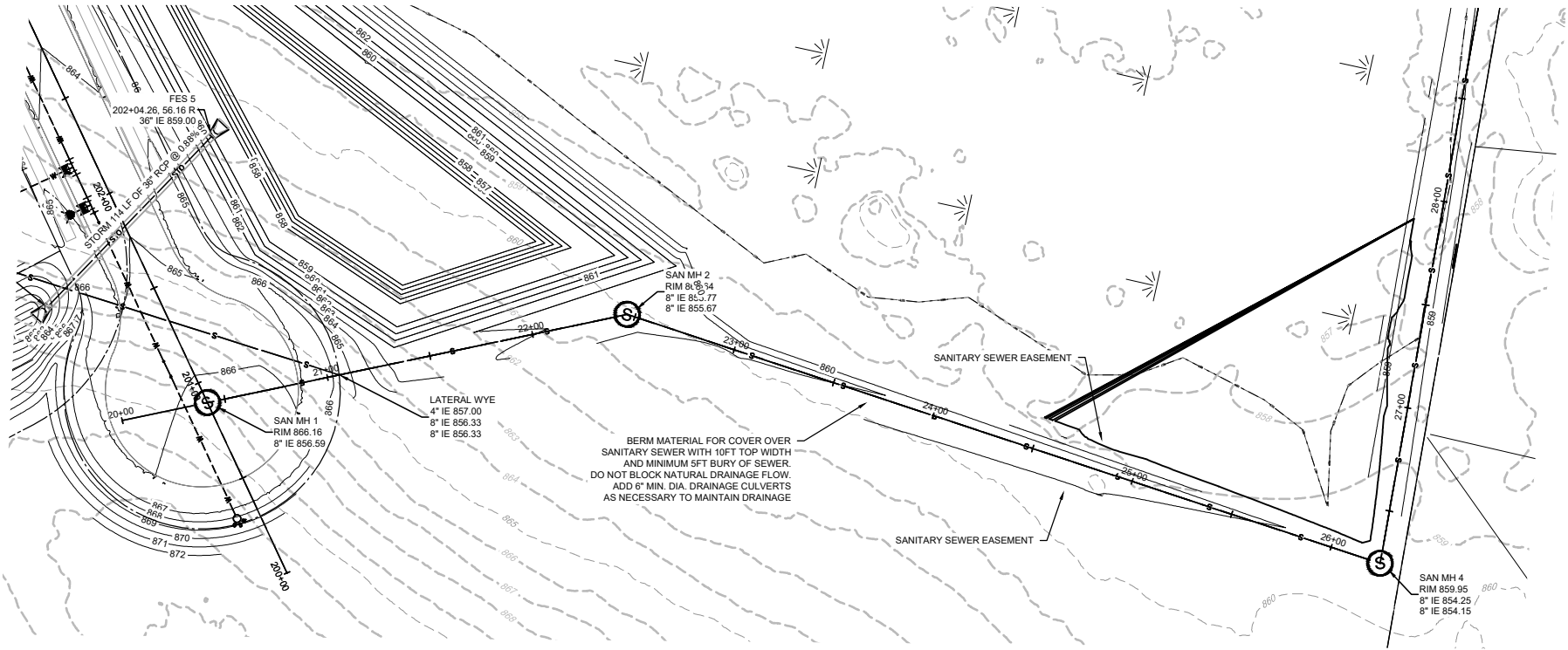
SHEET NUMBER

5

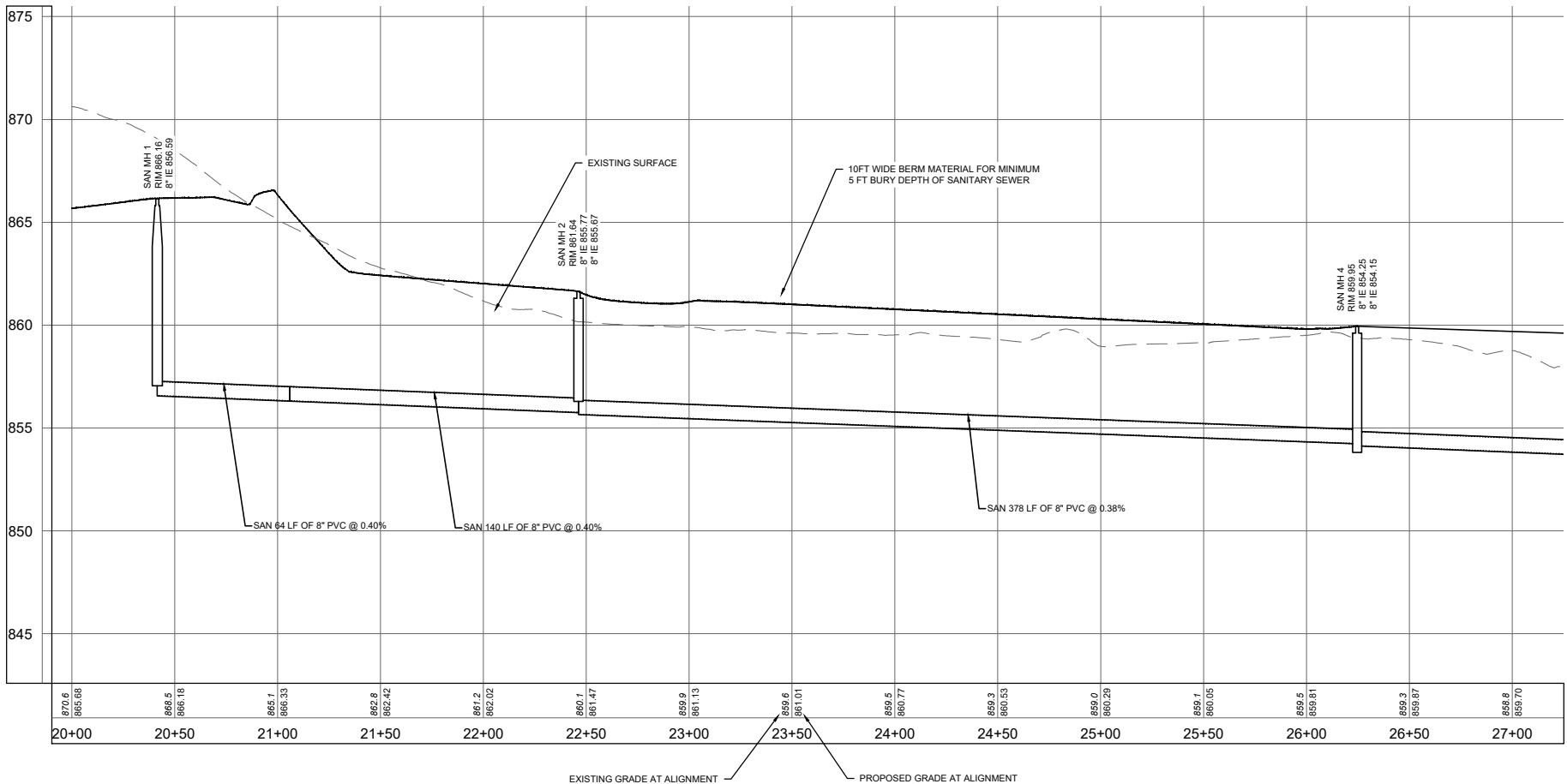


SCALE
PLAN VIEW:
1" = 80'

PROFILE VIEW:
H: 1" = 80'
V: 1" = 8'



SANITARY SEWER PROFILE AND UTILITIES



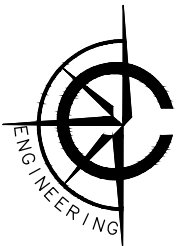
CLIENT

CAMBRIDGE
REAL ESTATE
VENTURES LLC

WESTGATE COMMERCIAL DEVELOPMENT
VILLAGE OF CAMBRIDGE DANE COUNTY, WI

SANITARY PLAN & PROFILE

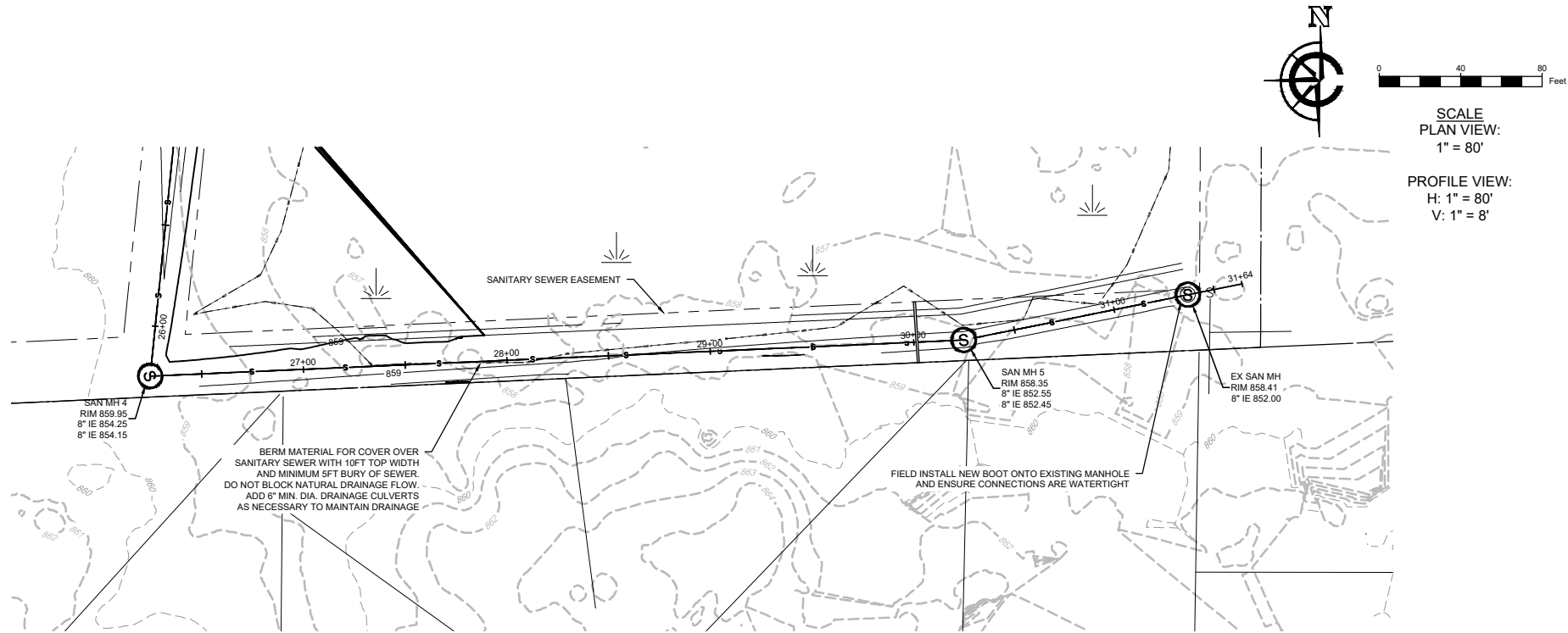
REVIEW



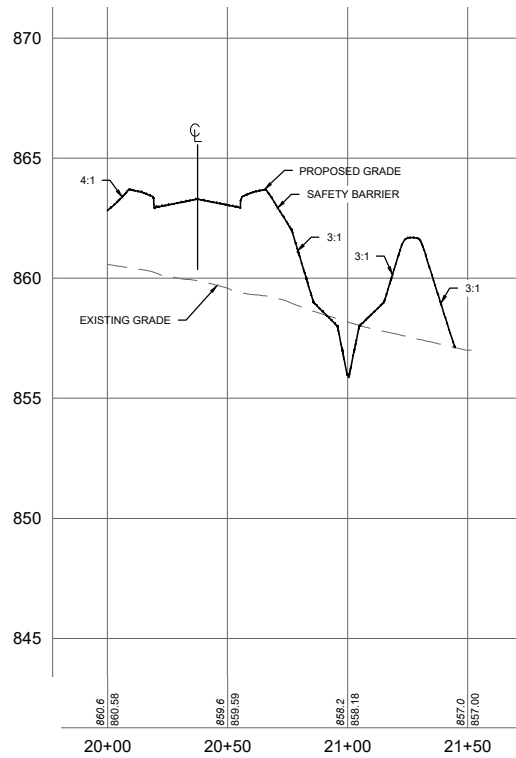
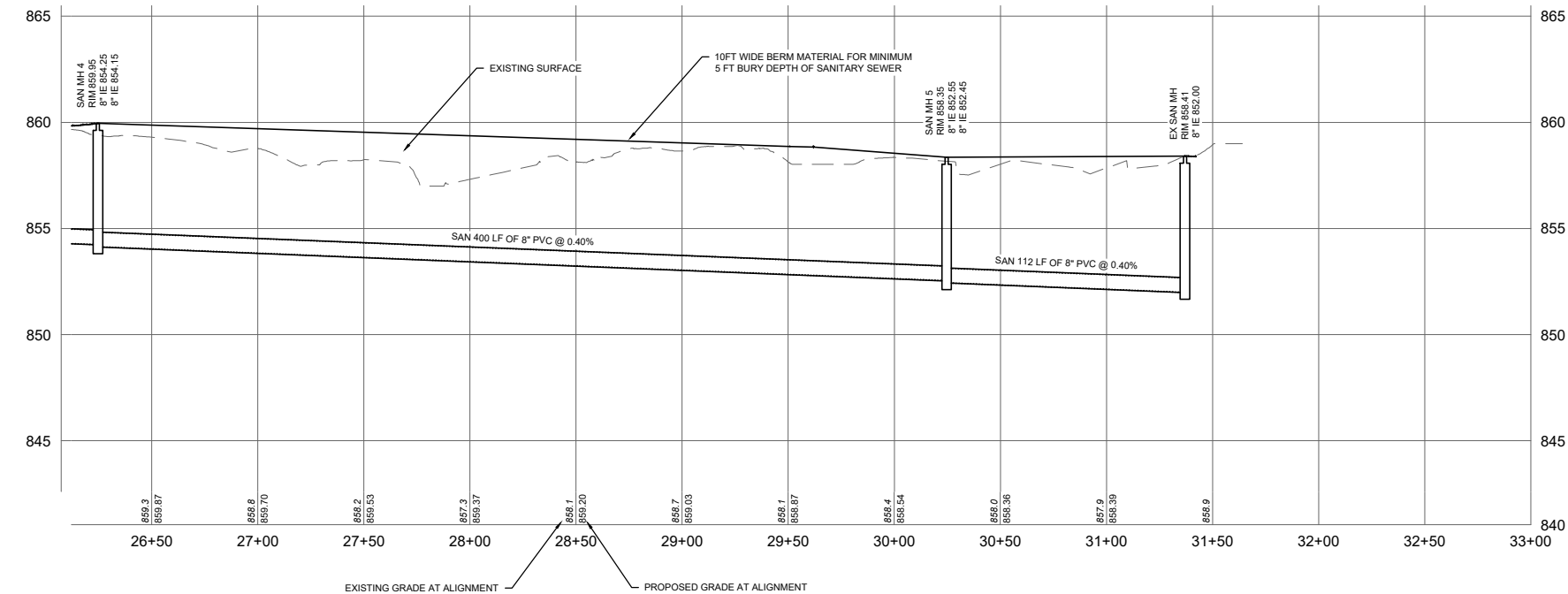
CARDINAL ENGINEERING LLC
DESIGNING IN TRUE DIRECTIONS

1200 LA SALLE STREET
LAKE GENEVA, WI 53147
262-757-8776
CARDINALENGINEERINGWI.COM

NO.	REVISION DESCRIPTION	REV DATE
SCALE 1" = 80' (HALF SIZE)		
PROJECT NUMBER 1701341		
DATE 11/24/2021		
PROJECT MGR RYAN CARDINAL, PE		
DRAWN BY EJO		
DESIGNED BY RWC		
SHEET NUMBER		
54		



SANITARY SEWER PROFILE AND UTILITIES



CROSS SECTION A-A

PROFILE VIEW:
H: 1" = 40'
V: 1" = 4'

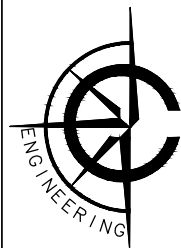
CLIENT

CAMBRIDGE
REAL ESTATE
VENTURES LLC

WESTGATE COMMERCIAL DEVELOPMENT
VILLAGE OF CAMBRIDGE DANE COUNTY, WI

SANITARY PLAN & PROFILE

REVIEW



CARDINAL ENGINEERING LLC
DESIGNING IN TRUE DIRECTIONS

1200 LA SALLE STREET
LAKE GENEVA, WI 53147
262-757-8776
CARDINALENGINEERINGWI.COM

NO.	REVISION DESCRIPTION	REV DATE

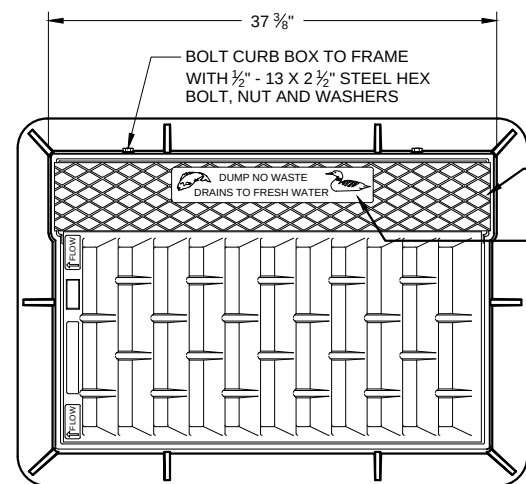
SCALE	1" = 80' (HALF SIZE)
PROJECT NUMBER	1701341
DATE	02/06/2023
PROJECT MGR	RYAN CARDINAL, PE
DRAWN BY	EJO
DESIGNED BY	RWC

SHEET NUMBER

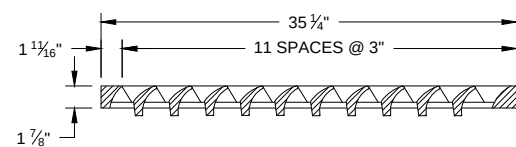
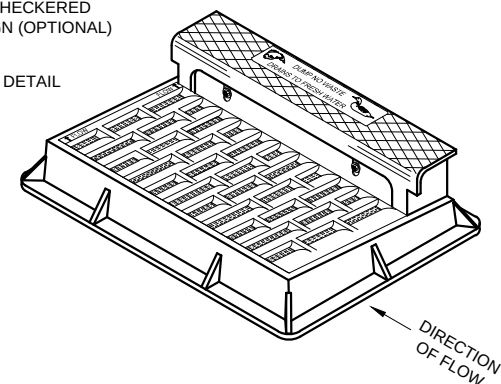
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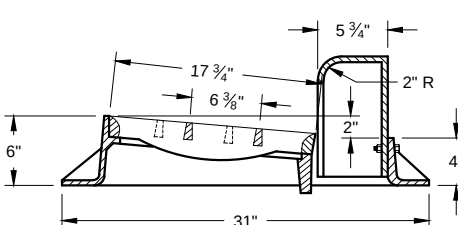
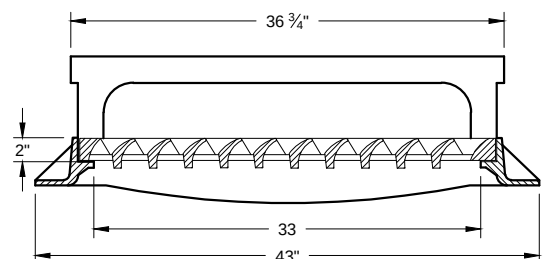
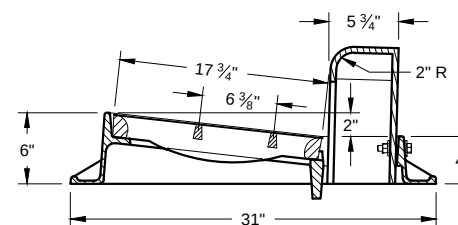
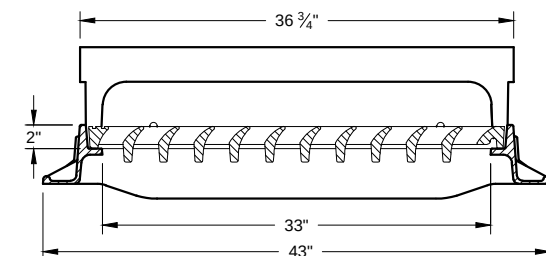
SDD 8A5-a Inlet Covers Type A, H, A-S, H-S and Z



NOTE: EITHER CASTING IS ACCEPTABLE

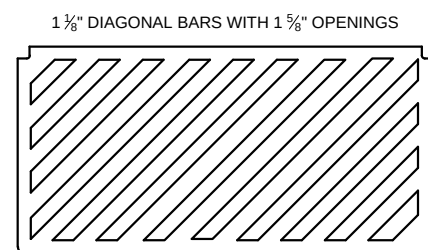


NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"



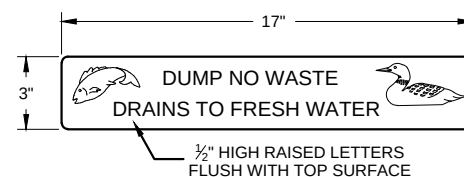
TYPE "H"

NOTE: EITHER CASTING IS ACCEPTABLE

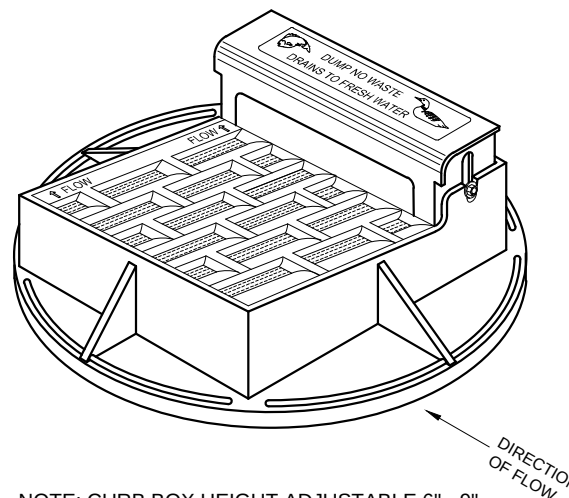


SPECIAL GRATE FOR TYPE "H" COVER

(MEASURES 35" X 17 3/4" X 2")
(NOTED AS TYPE H-S ON DRAINAGE TABLE)

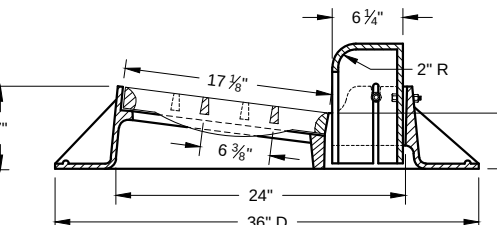
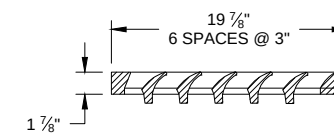
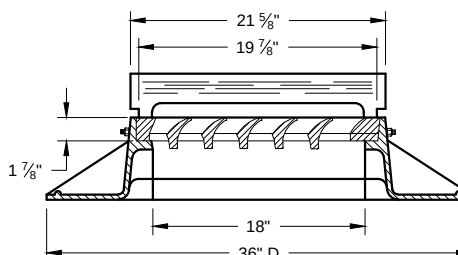


LOGO DETAIL

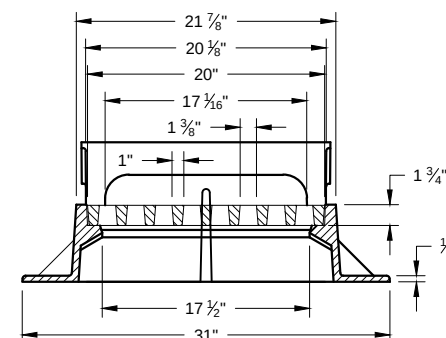
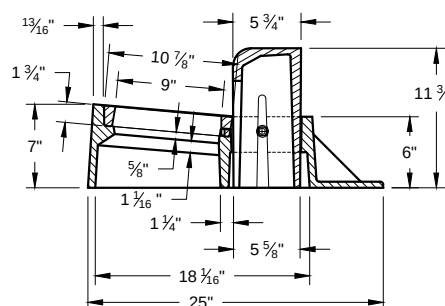


NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"

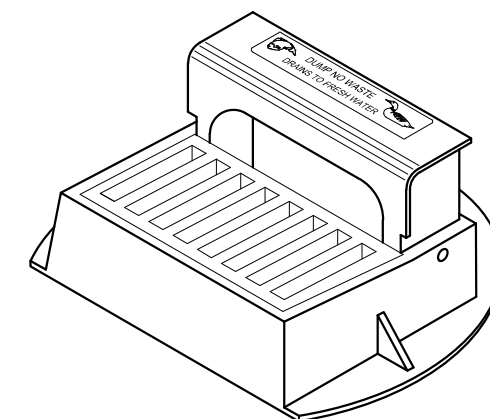
NOTE: EITHER CASTING IS ACCEPTABLE



TYPE "A"



TYPE "Z"



INLET COVERS TYPE A, H, A-S, H-S & Z

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11-27-13
DATE
/S/ Jerry H. Zogg
APPROVING
ENGINEER
FHWA

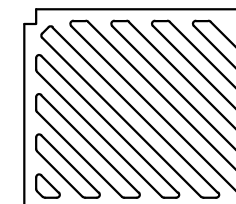
GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

1" DIAGONAL BARS
WITH 1 1/2" OPENINGS



SPECIAL GRATE FOR TYPE "A" COVER

(MEASURES 19 3/4" X 17" X 1 7/8")
(NOTED AS TYPE A-S ON DRAINAGE TABLE)

6

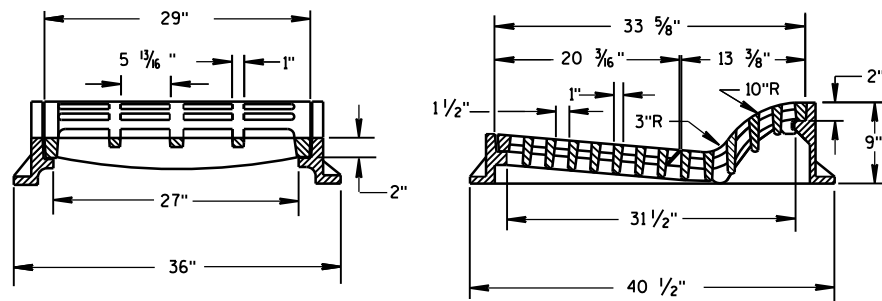
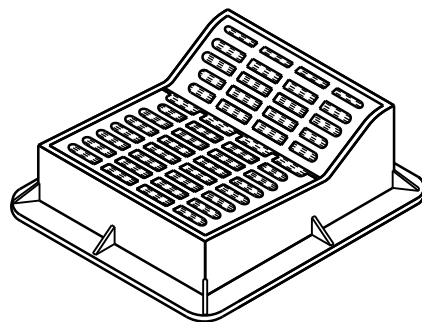
SDD 08A05-19a

6

SDD 08A05-19a

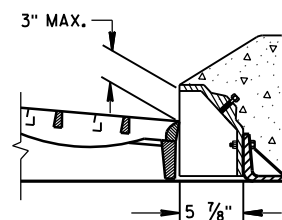


SDD 8A5-c Inlet Covers Type F, HM, HM-S, S, T, V, HM-GJ, and HM-GJ-S



TYPE "F"

USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.



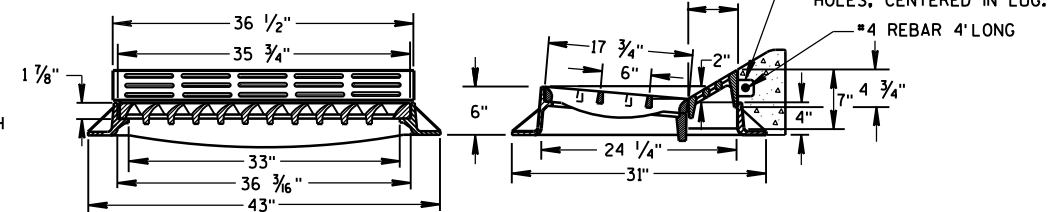
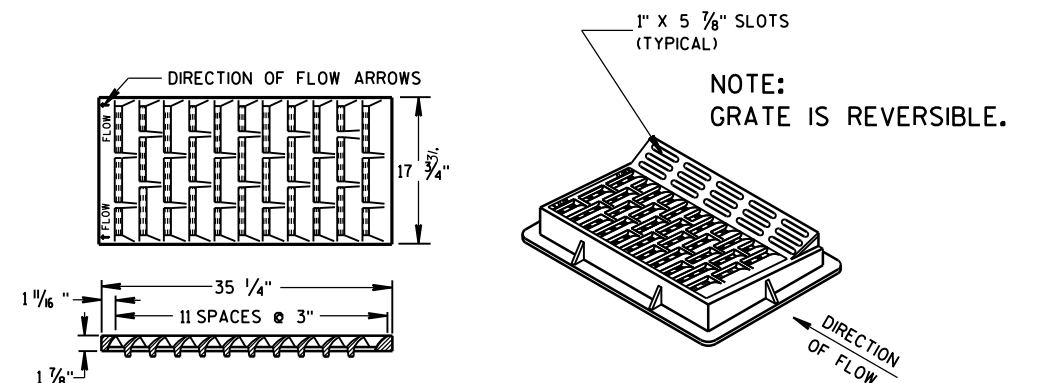
ALTERNATIVE CURB BOX
FOR TYPE "HM" COVER

USE WITH TYPES G & J CONCRETE CURB & GUTTER, 30 INCH
NOTED AS TYPE HM-GJ ON DRAINAGE TABLE

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

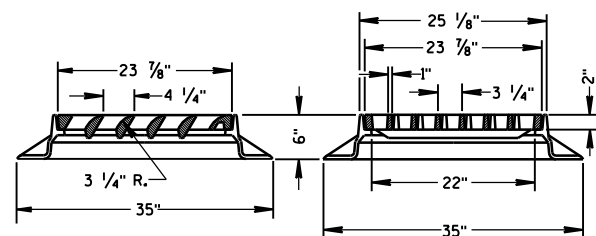
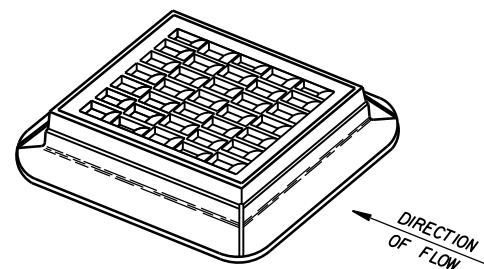
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.



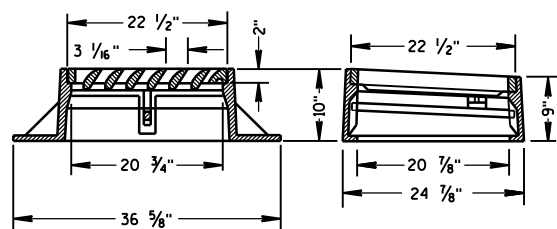
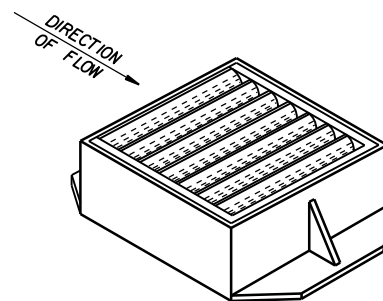
TYPE "HM"

USE WITH TYPES A & D CONCRETE
CURB & GUTTER, 36 INCH.

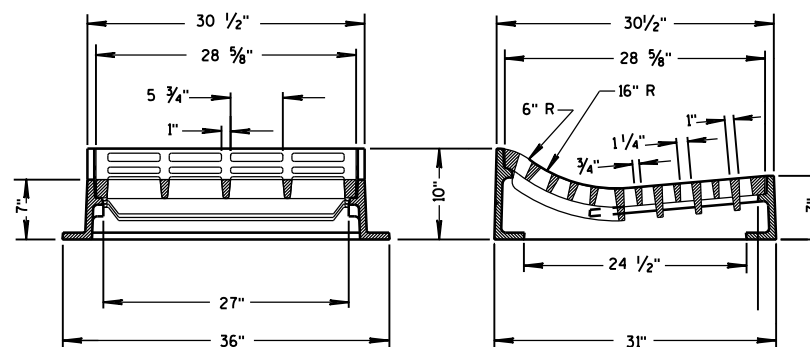
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM" COVER
NOTED AS TYPE HM-S ON DRAINAGE TABLE



TYPE "S"

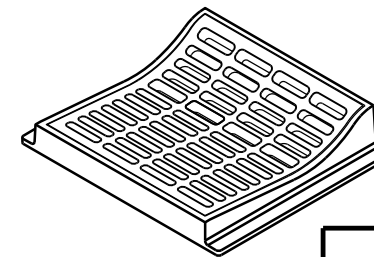


TYPE "V"



TYPE "T"

USE WITH TYPES R & T CONCRETE CURB & GUTTER, 36 INCH.



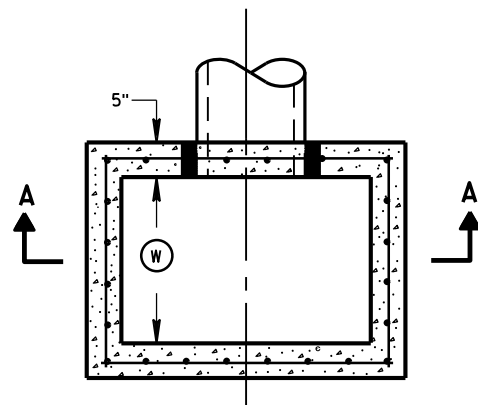
INLET COVERS
TYPE F, HM, HM-S, S, T, V,
HM-GJ, & HM-GJ-S

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

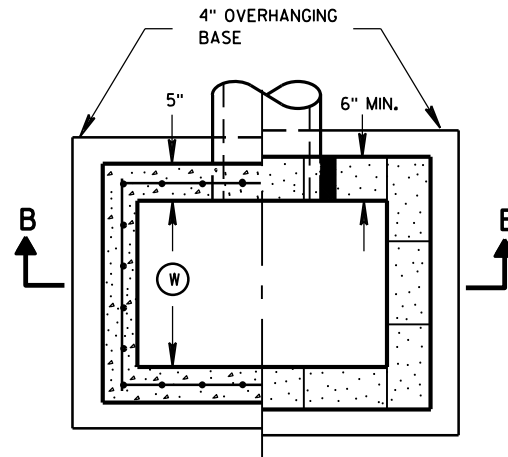
APPROVED
11/27/2013
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA



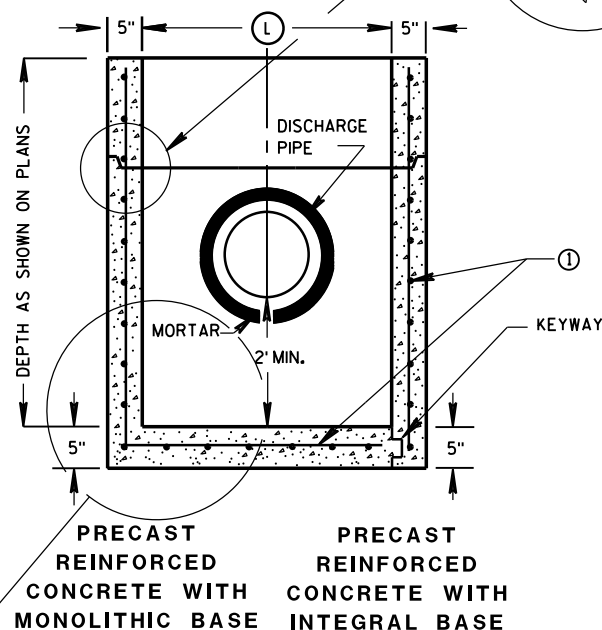
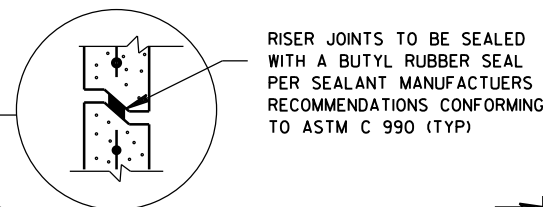
SDD 8A9 Catch Basins 2x3-FT and 2.5x3-FT



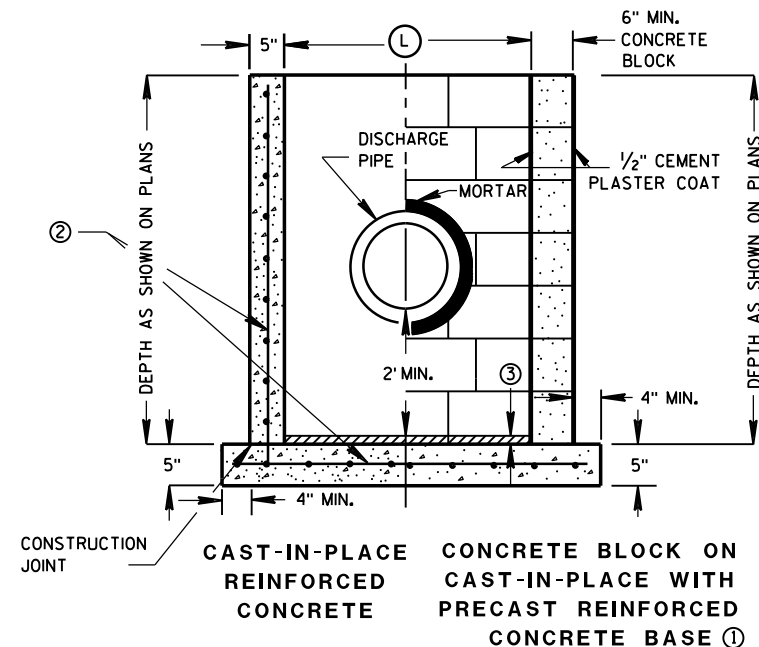
PLAN VIEW



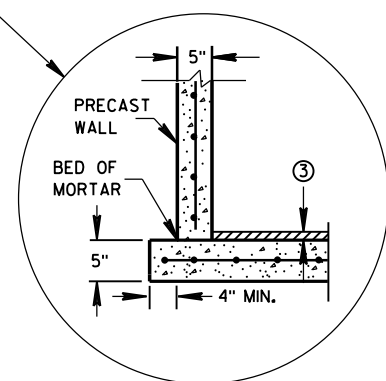
PLAN VIEW



SECTION A-A



SECTION B-B



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

CATCH BASINS 2X3-FT AND 2.5X3-FT

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST CATCH BASIN UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL PRECAST CATCH BASIN UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATES THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

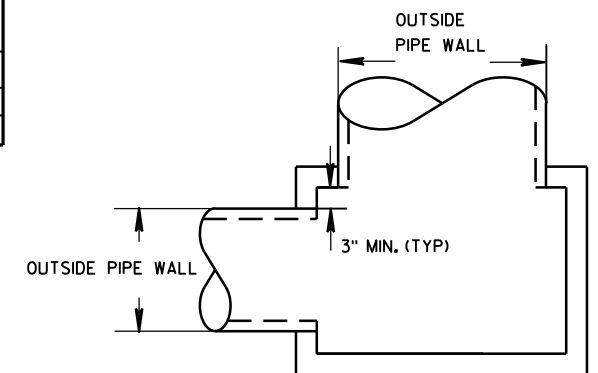
- ① FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.
- ② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.
- ③ 1" CONCRETE KEY POURED AFTER INSTALLATION. 2" SUMP MEASURED FROM TOP OF KEY.

CATCH BASIN COVER MATRIX

CATCH BASIN SIZE	WIDTH ① (FT)	LENGTH ② (FT)	F	ALL H'S
2X3-FT	2	3		X
2.5X3-FT	2.5	3	X	

PIPE MATRIX

CATCH BASIN SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	WIDTH (IN)	LENGTH (IN)
2X3-FT	12	24
2.5X3-FT	18	24



DETAIL "A"

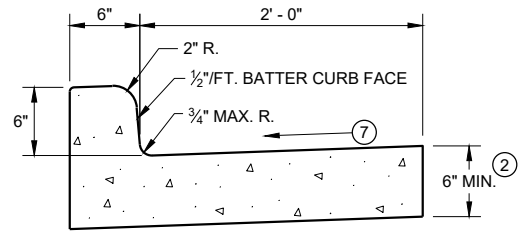
CATCH BASINS 2X3-FT AND 2.5X3-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

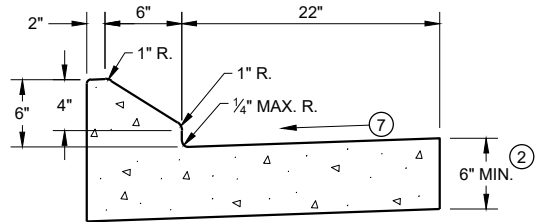
APPROVED
Sept., 2016 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR



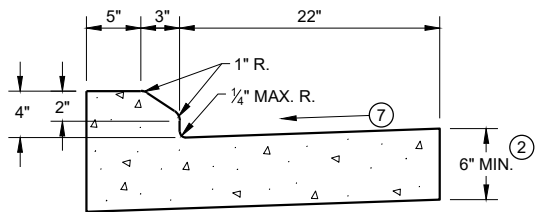
SDD 08D01-a Concrete Curb and Gutter



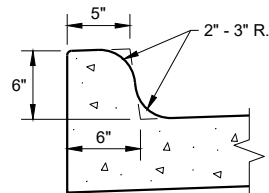
TYPES A^① & D



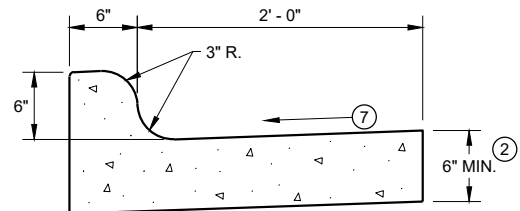
6" SLOPED CURB TYPES G^① & J



4" SLOPED CURB TYPES G^① & J

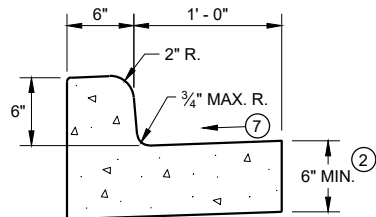


TYPES K^① & L
(OPTIONAL CURB SHAPE)



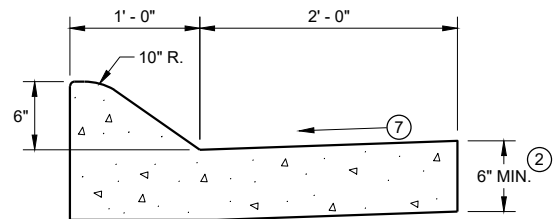
TYPES K^① & L

CONCRETE CURB AND GUTTER 30"

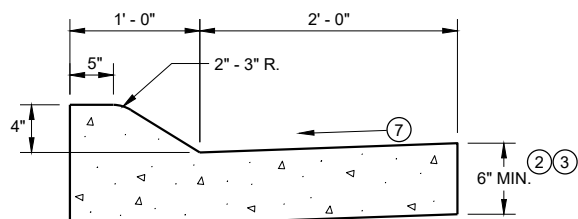


TYPES A^① & D

CONCRETE CURB AND GUTTER 18"

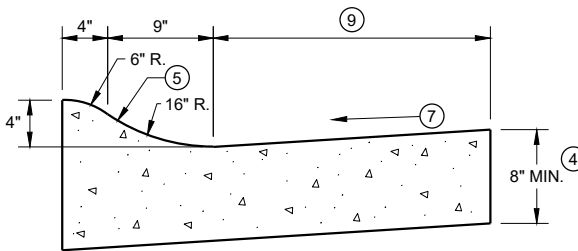


6" SLOPED CURB TYPES A^① & D



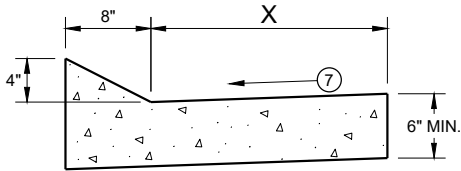
4" SLOPED CURB TYPES A^① & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R^① & T

TBT & TBTT	X
30"	22"
36"	28"

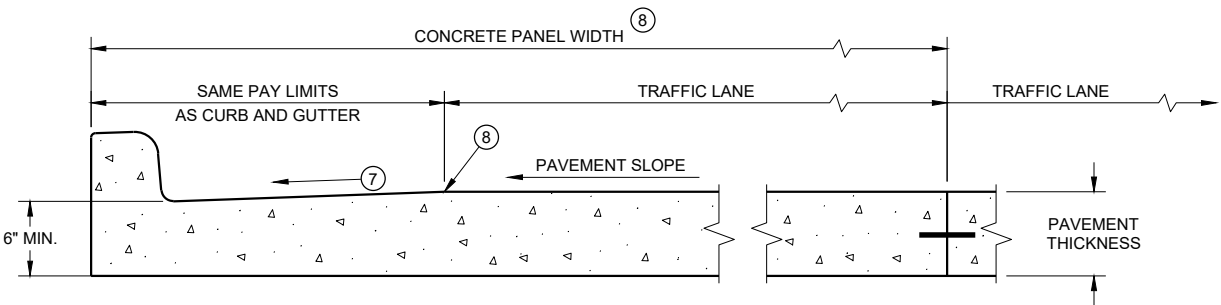


TYPES TBT & TBTT^①

CONCRETE CURB AND GUTTER

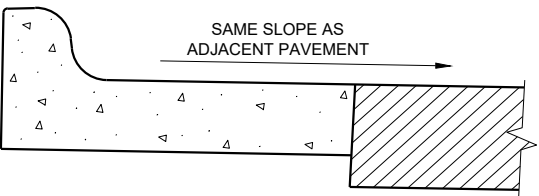
PAVEMENT THICKNESS
AND MAXIMUM CONCRETE
PANEL WIDTH TABLE

PAVEMENT THICKNESS	MAXIMUM PANEL WIDTH
LESS THAN 10"	12'
10" & ABOVE	15'



PARTIAL SECTION OF PAVEMENT *
WITH INTEGRAL CURB AND GUTTER

* BIKE LANE IS NOT SHOWN



REVERSE SLOPE GUTTER^⑥
(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

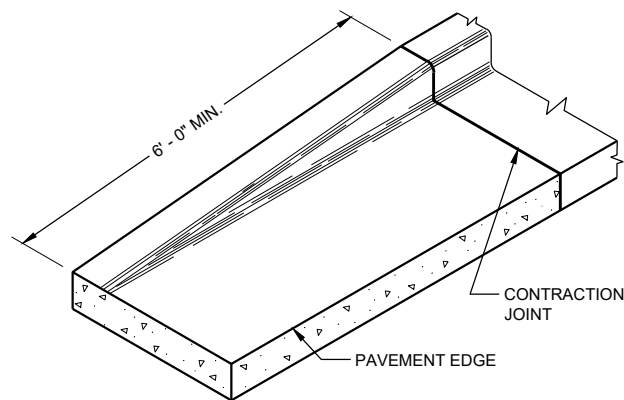
INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

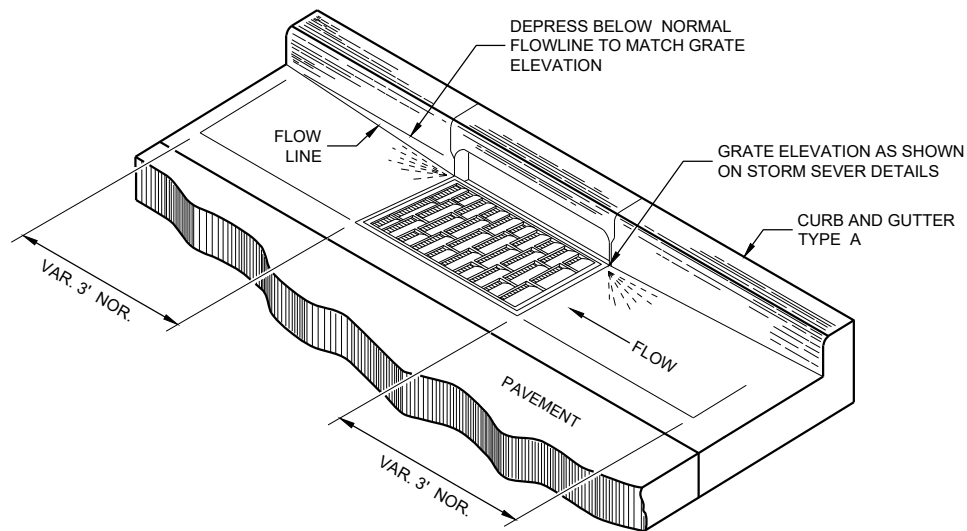
- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ③ USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.
- ④ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ⑤ UNLESS OTHERWISE NOTED, FOR STAKING PURPOSES THE FACE OF CURB IS 6" FROM THE BACK OF CURB.
- ⑥ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.
- ⑦ USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.
- ⑧ INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.
- ⑨ CONCRETE CURB AND GUTTER 4-INCH SLOPED 30-INCH TYPE "R" AND "T" = 17 INCHES
CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE "R" AND "T" = 23 INCHES



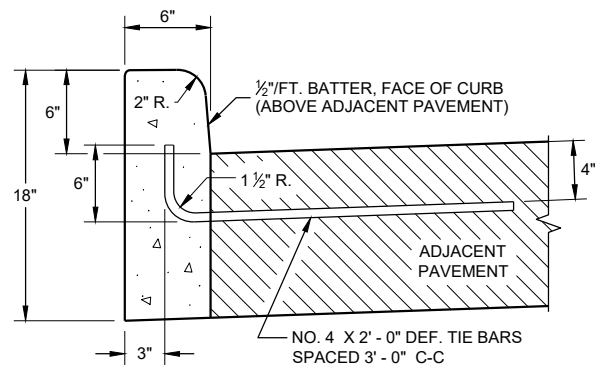
SDD 08D01-b Concrete Gutter, Ties, and Curb and Gutter Applications



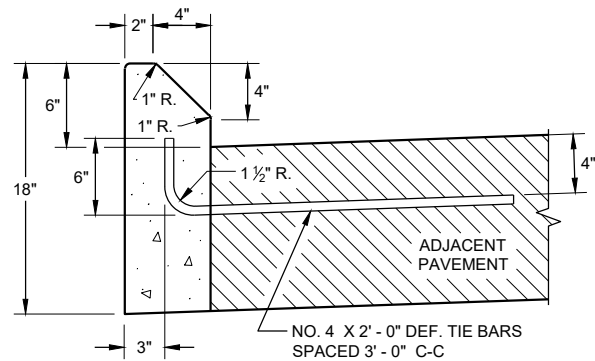
END SECTION CURB AND GUTTER



DETAIL OF CURB AND GUTTER AT INLETS
(TYPICAL H INLET COVER SHOWN)

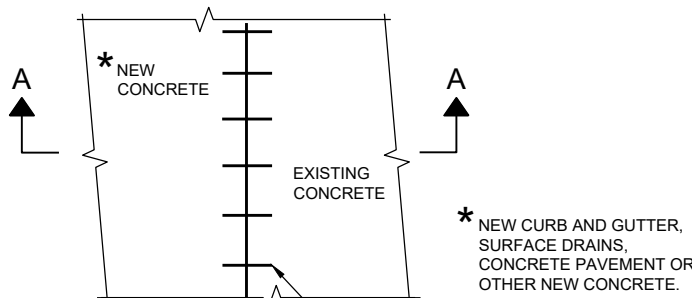


TYPES A^① & D

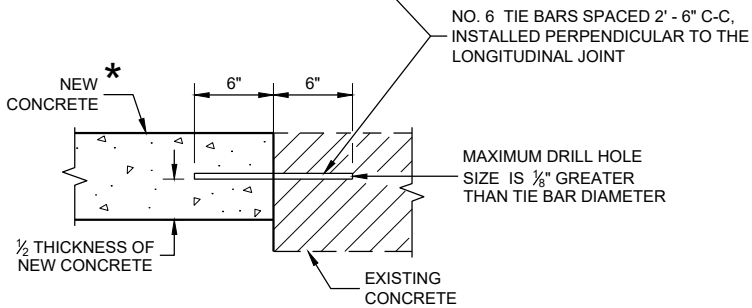


TYPES G^① & J

CONCRETE CURB



PLAN VIEW



SECTION A - A

TIE BARS DRILLED
INTO EXISTING PAVEMENT

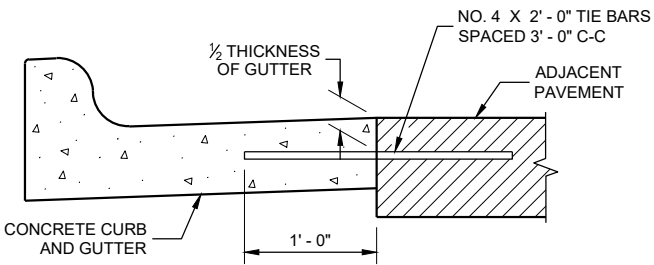
GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

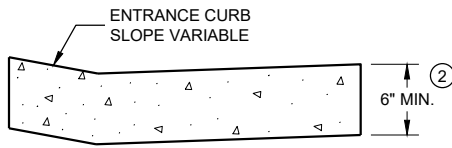
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ③ REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.



TYPICAL TIE BAR LOCATION^①



DRIVEWAY ENTRANCE CURB^⑨
(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021
DATE /S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

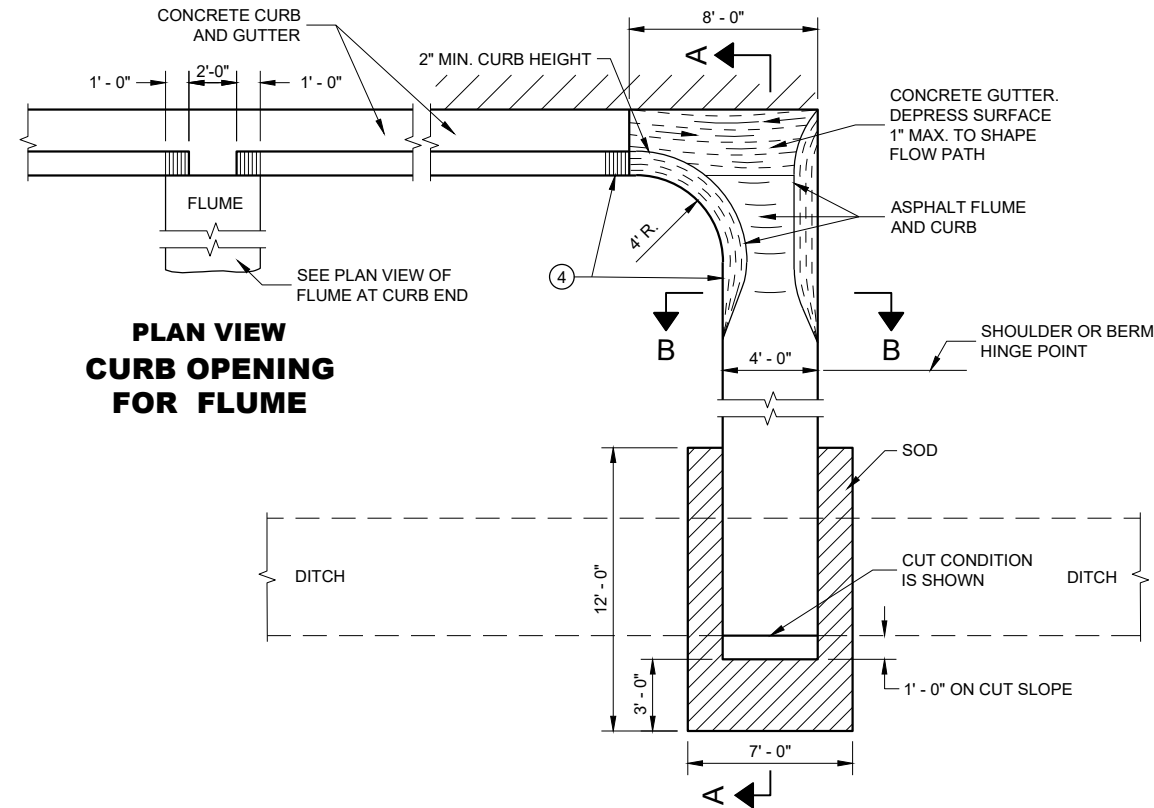
FHWA



SDD 08D04 Concrete Surface Drains and Asphaltic Flumes

NOTE: TAPER CURB ENDS TO GUTTER IN 1' - 0"

ASPHALTIC FLUME



PLAN VIEW
CURB OPENING
FOR FLUME

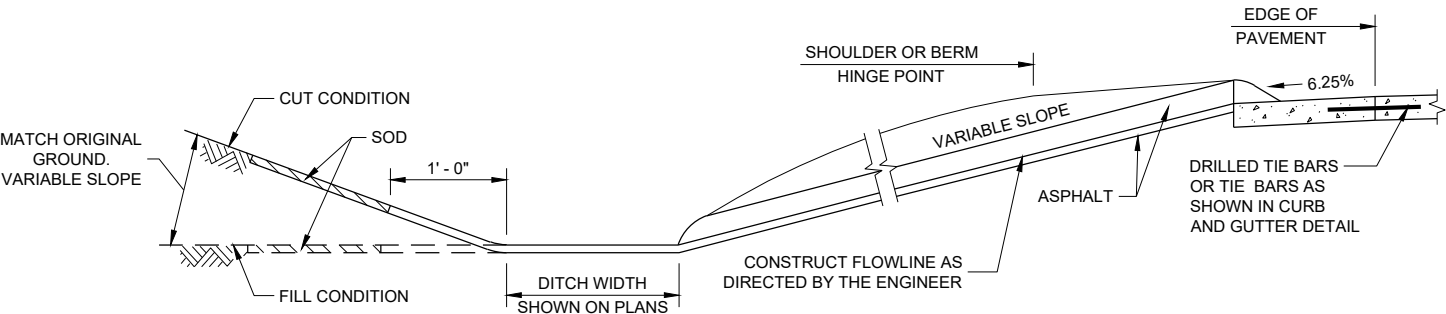
PLAN VIEW
FLUME AT CURB END

GENERAL NOTES

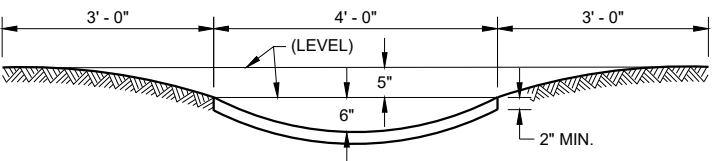
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

4" X 4" - W3.0 X W3.0 CONCRETE REINFORCEMENT SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

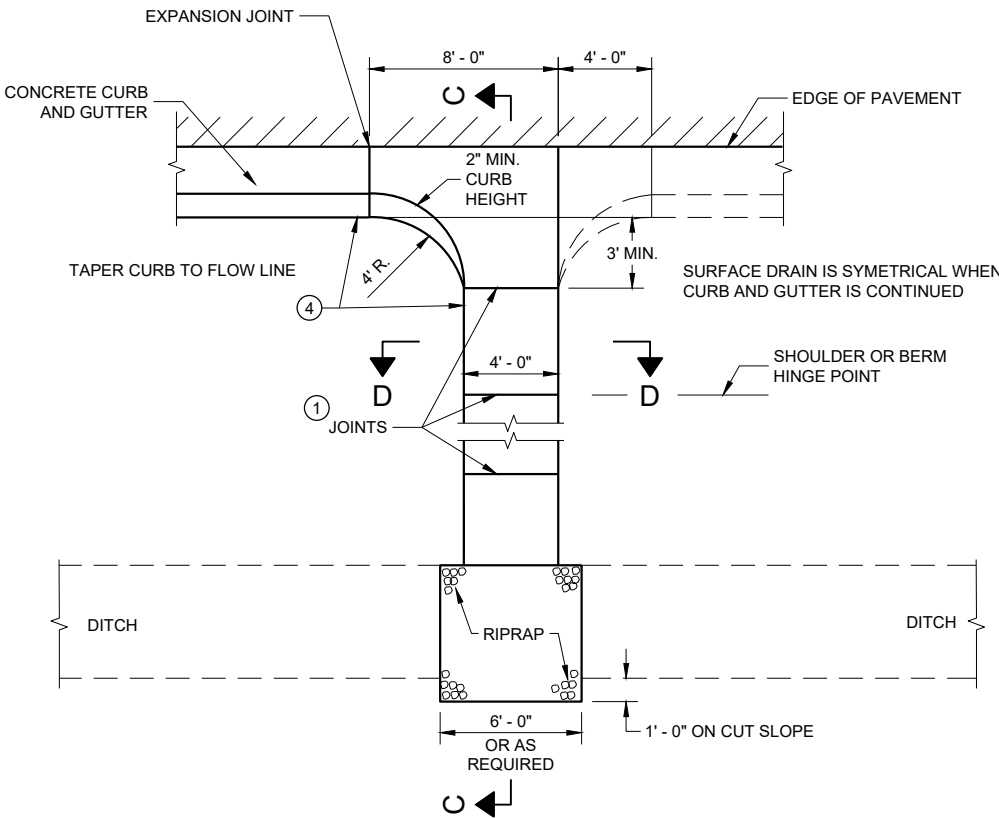
- JOINTS SHALL BE $\frac{1}{8}$ " TO $\frac{1}{4}$ " WIDE BY $\frac{1}{2}$ " DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.
- GEOTEXTILE TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.
- CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED.
- ANGLE OF FLUME IN RELATION TO BACK OF CURB TO BE CONSTRUCTED PER THE PLAN DETAILS OR AS DIRECTED BY THE ENGINEER. ANGLE OF FLUME MAY BE OTHER THAN 90 DEGREES AS SHOWN.



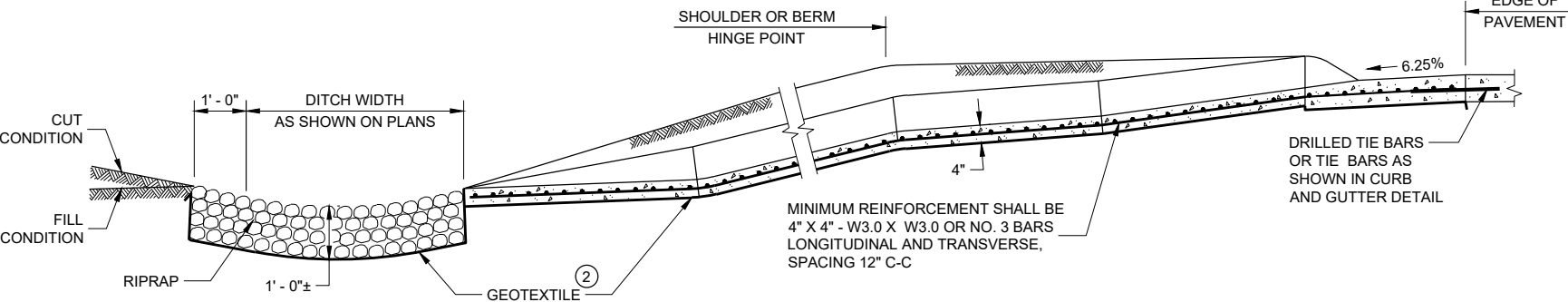
SECTION A - A



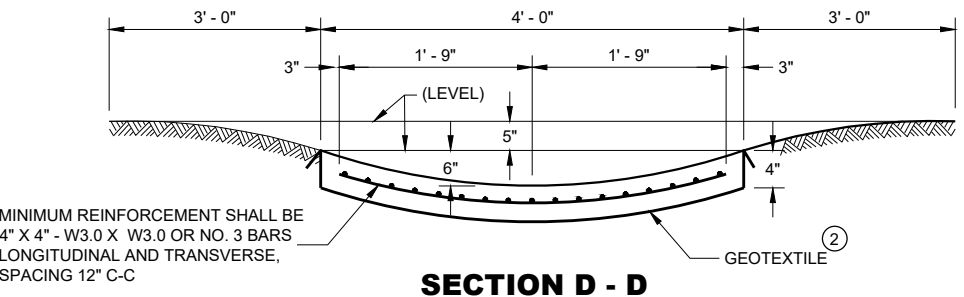
SECTION B - B



PLAN VIEW
CONCRETE SURFACE DRAIN



SECTION C - C



SECTION D - D

CONCRETE SURFACE DRAINS AND ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

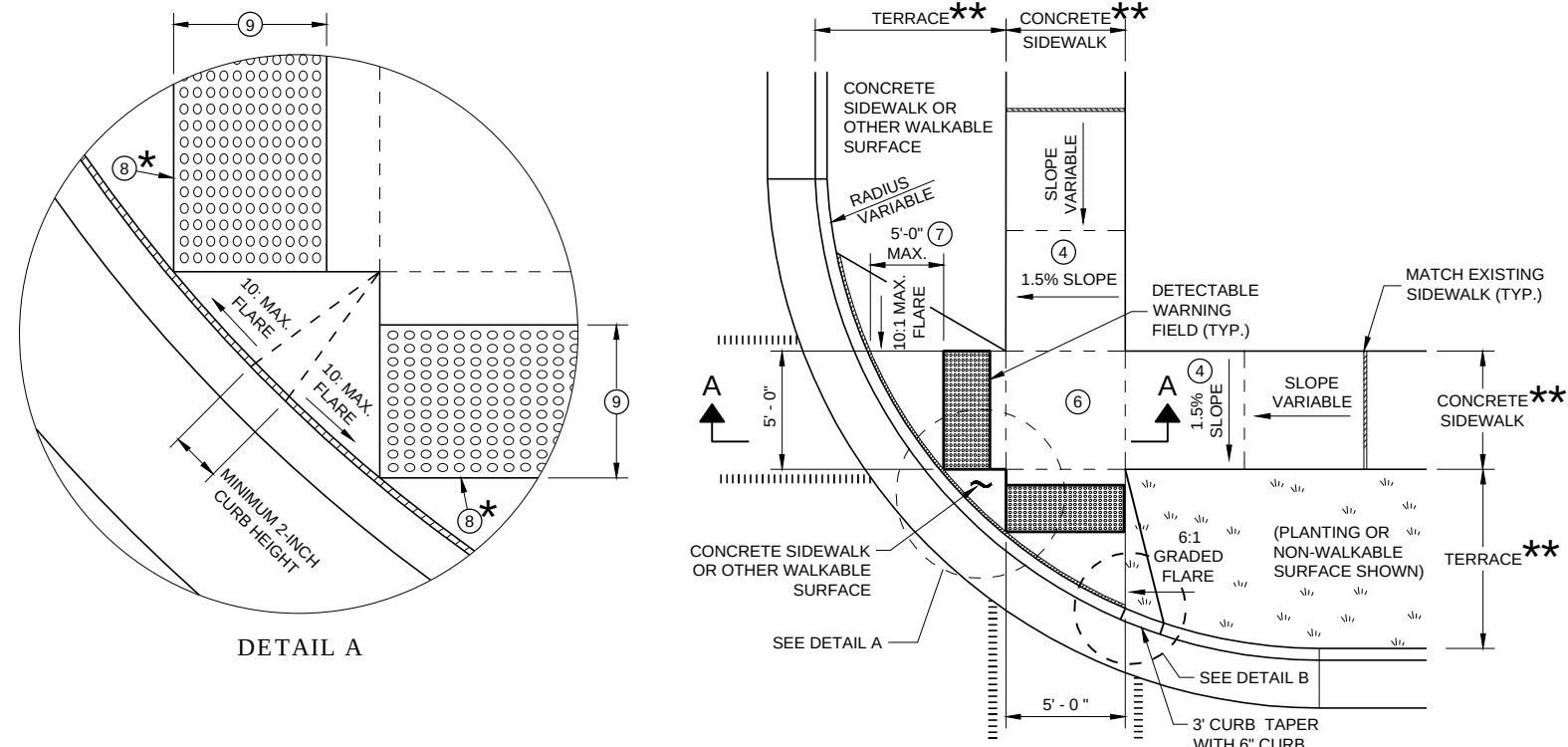
APPROVED
November 2021
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA

6

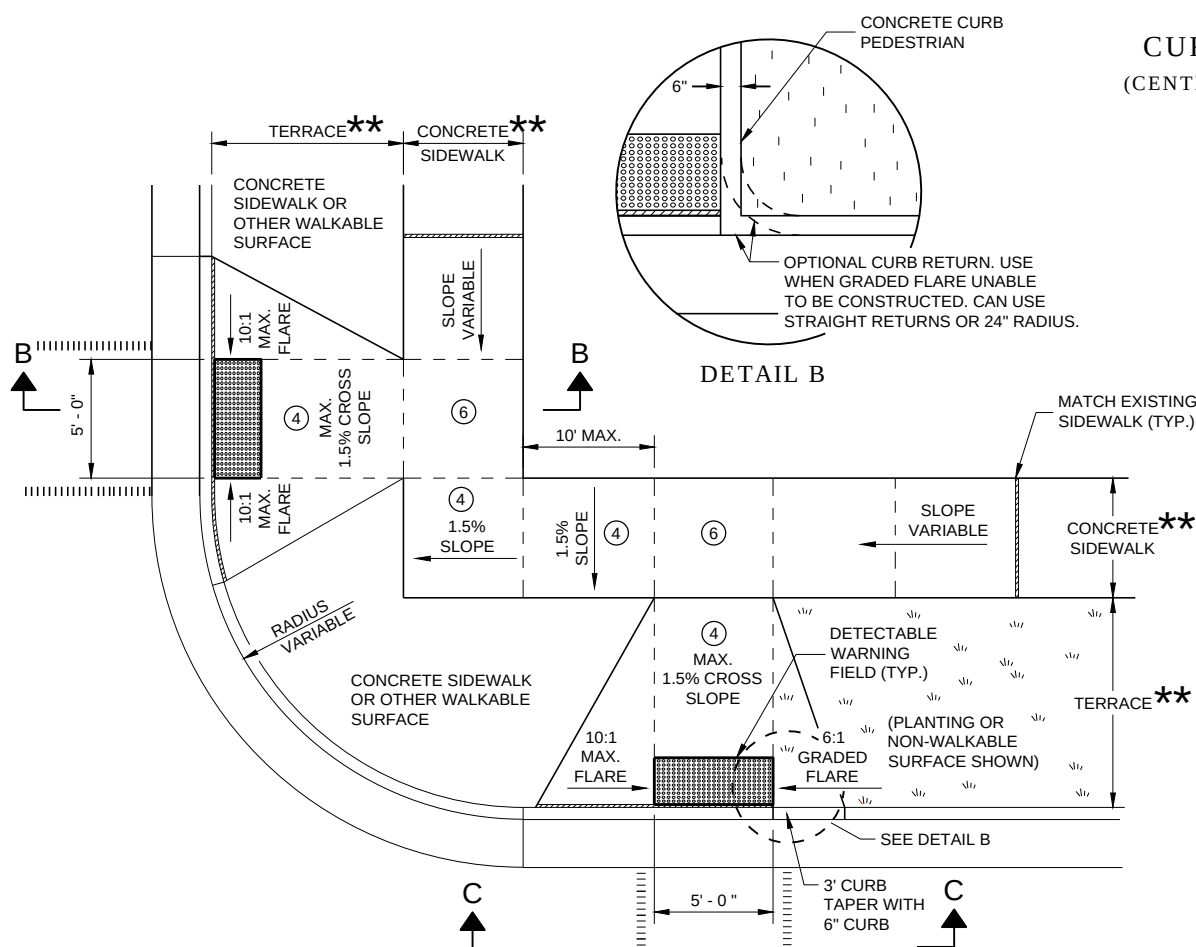
SDD 08D04 - 06

6

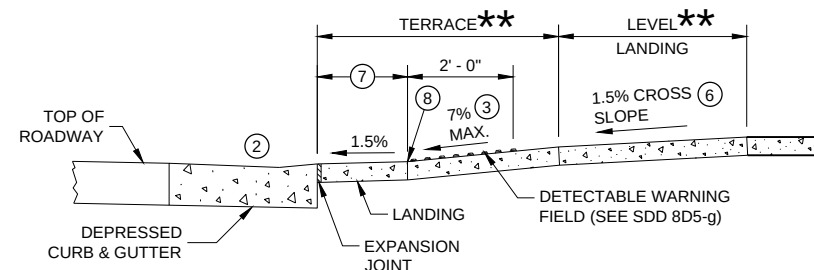
SDD 08D04 - 06



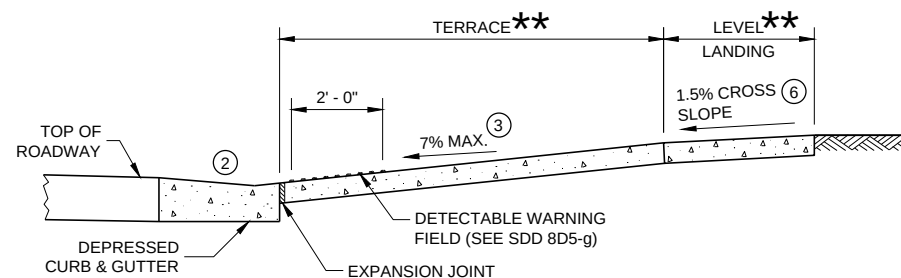
PLAN VIEW
CURB RAMP TYPE 2
(CENTER OF CORNER RADIUS)



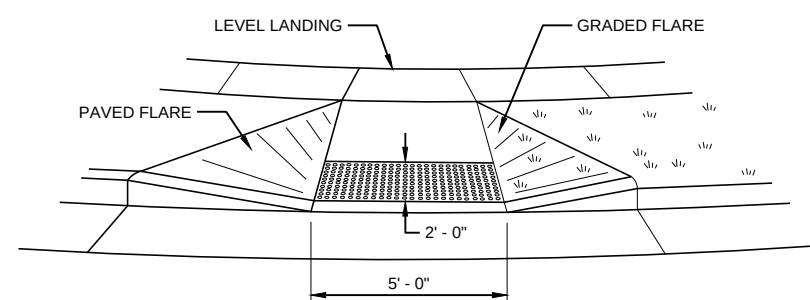
PLAN VIEW
CURB RAMP TYPE 3
(OUTSIDE OF CROSSWALK AREA)



SECTION A - A FOR TYPE 2



SECTION B - B FOR TYPE 3



VIEW C - C FOR TYPE 3

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE SHALL BE FROM THE SAME MANUFACTURER.

- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN $\frac{1}{4}$ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE (2.67% OR LESS) AND NOT TO EXCEED 11% GRADE CHANGE.
- ④ $\pm 0.5\%$ CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET X 5 FEET.
- ⑦ WHEN GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- ⑨ WHEN DISTANCE IS LESS THAN 6' - 0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.

* MAXIMUM 2.0% SLOPE
IN ALL DIRECTIONS IN
FRONT OF GRADE BREAK

**** WIDTH SHOWN ELSEWHERE
IN THE PLANS**

LEGEND

- | | |
|---|------------------------------------|
|  | 1/2" EXPANSION JOINT SIDEWALK |
|  | CONTRACTION JOINT SIDEWALK |
|  | PAVEMENT MARKING CROSSWALK (WHITE) |

CURB RAMPS
TYPE 2 AND 3

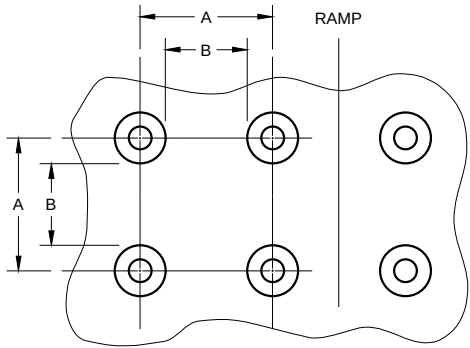
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



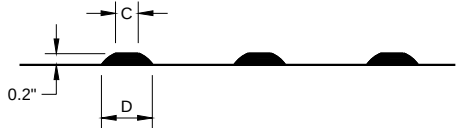
SDD 08D05-g: Curb Ramps Rectangular and Radial Detectable Warning Plates

	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	★	★
D	0.9"	1.4"

★ THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.

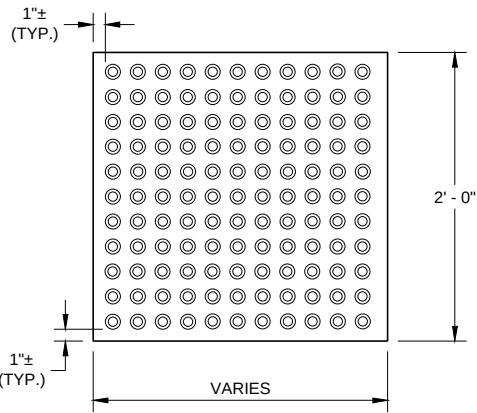


PLAN VIEW

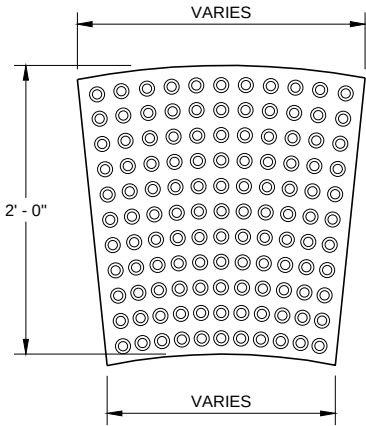


ELEVATION VIEW

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



RECTANGULAR
PLATES



RADIAL
PLATES

PLAN VIEW
DETECTABLE WARNING FIELDS (TYPICAL)

GENERAL NOTES

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AT A CURB RAMP SHALL BE FROM THE SAME MANUFACTURER.

PLACE ALL DETECTABLE WARNING FIELD SYSTEMS IN ACCORDANCE TO THE MANUFACTURER'S RECOMMENDATION.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FIELD ARE PROHIBITED.

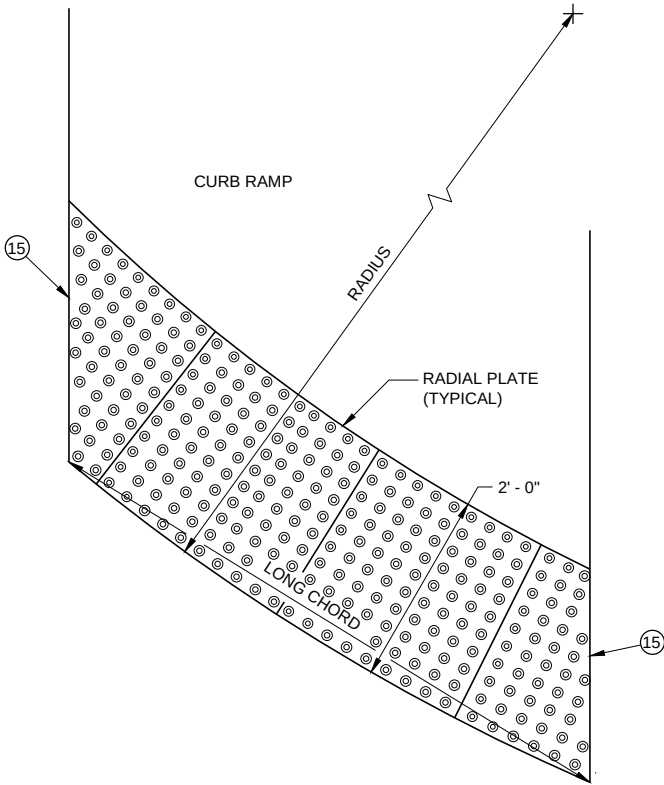
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

FOR RADIAL DETECTABLE WARNING FIELD APPLICATIONS WHERE STANDARD RADIAL PLATES ARE NOT AVAILABLE AT AN INTERSECTION CURB RADIUS, A COMBINATION OF SQUARE OR RECTANGULAR PLATES AND RADIAL PLATES MAY BE USED TO FORM RADIAL CONFIGURATION. RADIAL WEDGE PLATES IN COMBINATION WITH SQUARE PLATES ARE ALSO ACCEPTABLE. FOLLOW MANUFACTURER'S RECOMMENDATIONS.

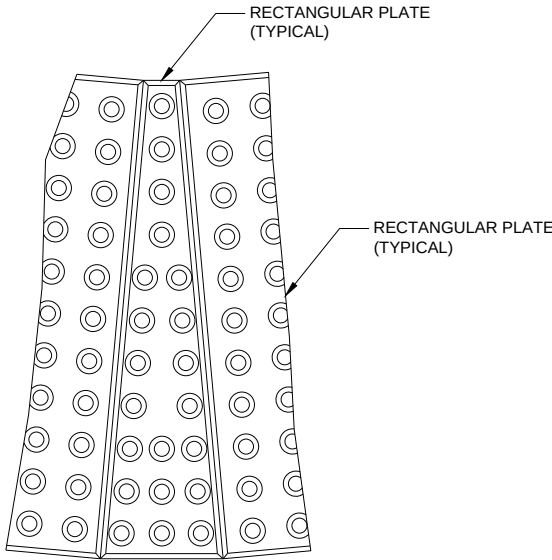
REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

DO NOT EMBED IN CONCRETE ANY FIELD-CUT PLATES WITH CUT EDGES SHORTER THAN 6 INCHES. CONSULT WITH MANUFACTURER FOR RE-DRILLING AND ANCHORING REQUIREMENTS OF FIELD-CUT PLATES.

15 FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN 1/8" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.



PLAN VIEW
RADIAL DETECTABLE
WARNING FIELD ATTRIBUTES



PLAN VIEW
RADIAL WEDGE PLATE
CONNECTION DETAIL

CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

May 2019

DATE

FHWA

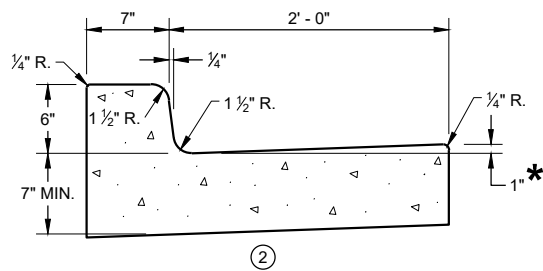
/S/ Rodney Taylor

ROADWAY STANDARDS DEVELOPMENT

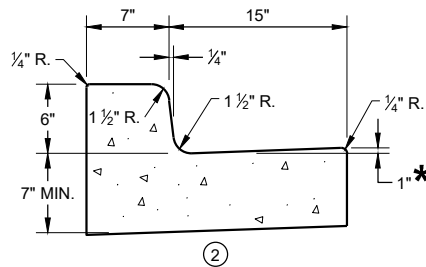
UNIT SUPERVISOR



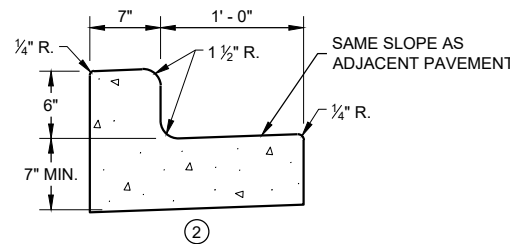
SDD 08D16 Concrete Gutter, Curb and Gutter and Pavement Ties



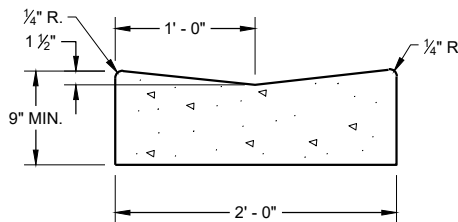
CONCRETE CURB AND GUTTER 31" ①



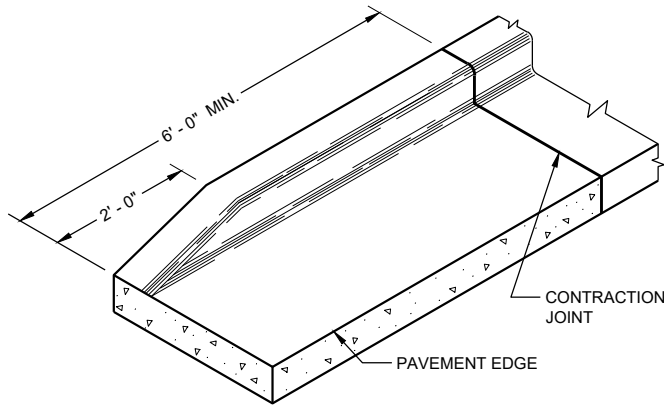
CONCRETE CURB AND GUTTER 22" ①



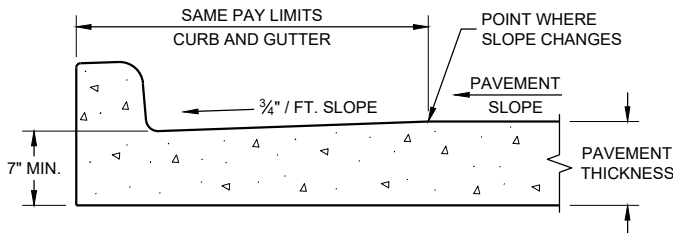
CONCRETE CURB AND GUTTER 19" ①



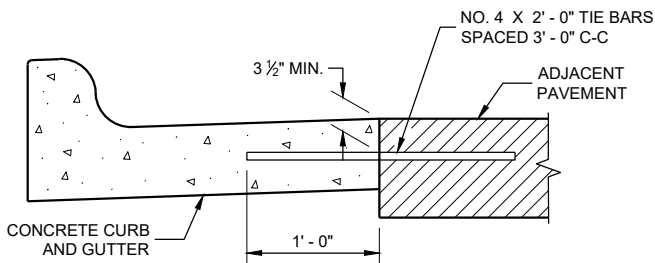
CONCRETE GUTTER 24" ①



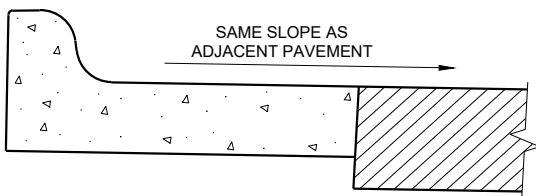
END SECTION CURB AND GUTTER



PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB AND GUTTER



TYPICAL TIE BAR LOCATION ①



HIGH SIDE SECTION ③
(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

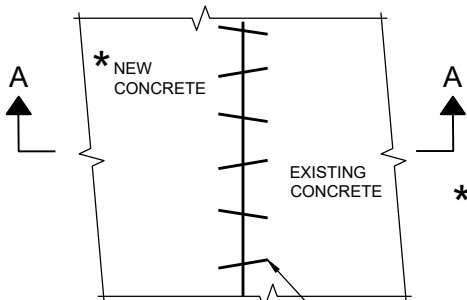
DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

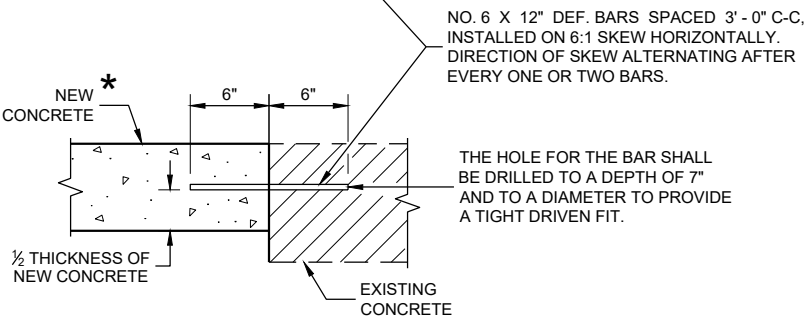
INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE COURSE AND UNCLASSIFIED EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

- ① WHEN PLACED ADJACENT TO NEW CONCRETE, TIE BARS ARE REQUIRED FOR CURB AND GUTTER 31", 22", 19" AND CONCRETE GUTTER 24".
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE COURSE PROVIDED A 7" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ③ WHEN HIGH SIDE CURB SECTION IS REQUIRED, THE LOCATION(S) WILL BE NOTED ON THE PLANS



PLAN VIEW



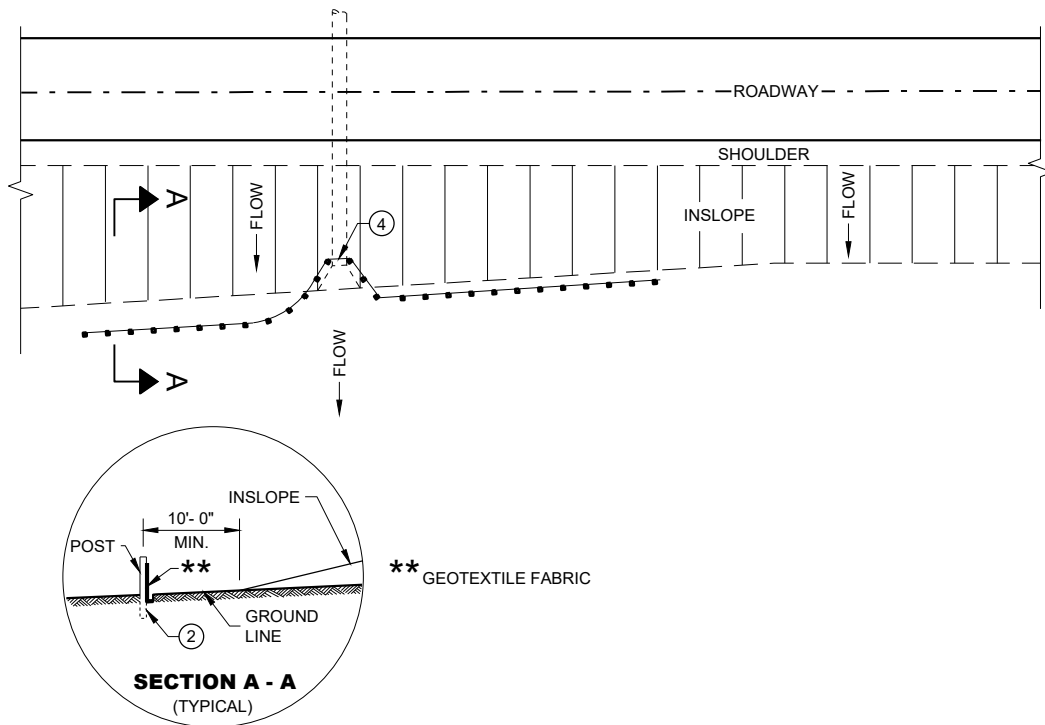
SECTION A - A

PAVEMENT TIES

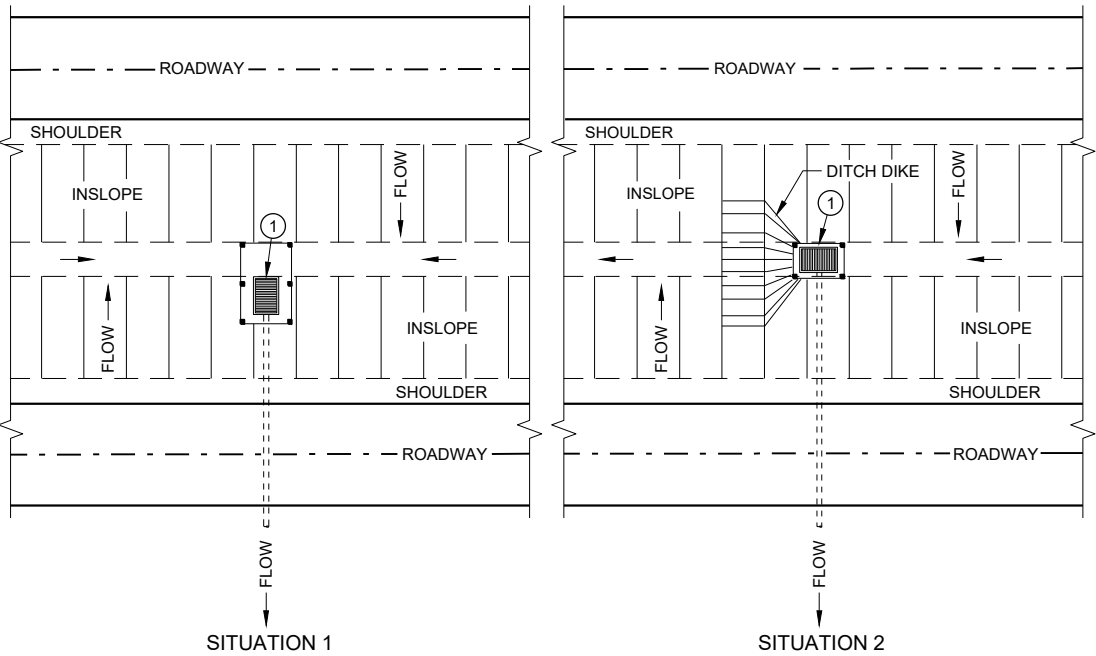
**CONCRETE GUTTER,
CURB AND GUTTER AND
PAVEMENT TIES**
(For Optional use in Milwaukee Co. Only)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 DATE /S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA



PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE

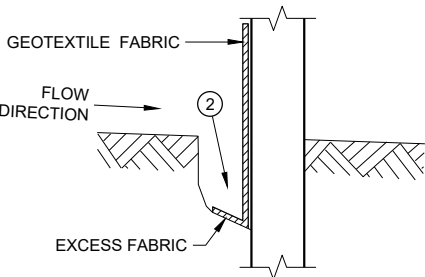


PLAN VIEW
SILT FENCE AT MEDIAN SURFACE DRAINS

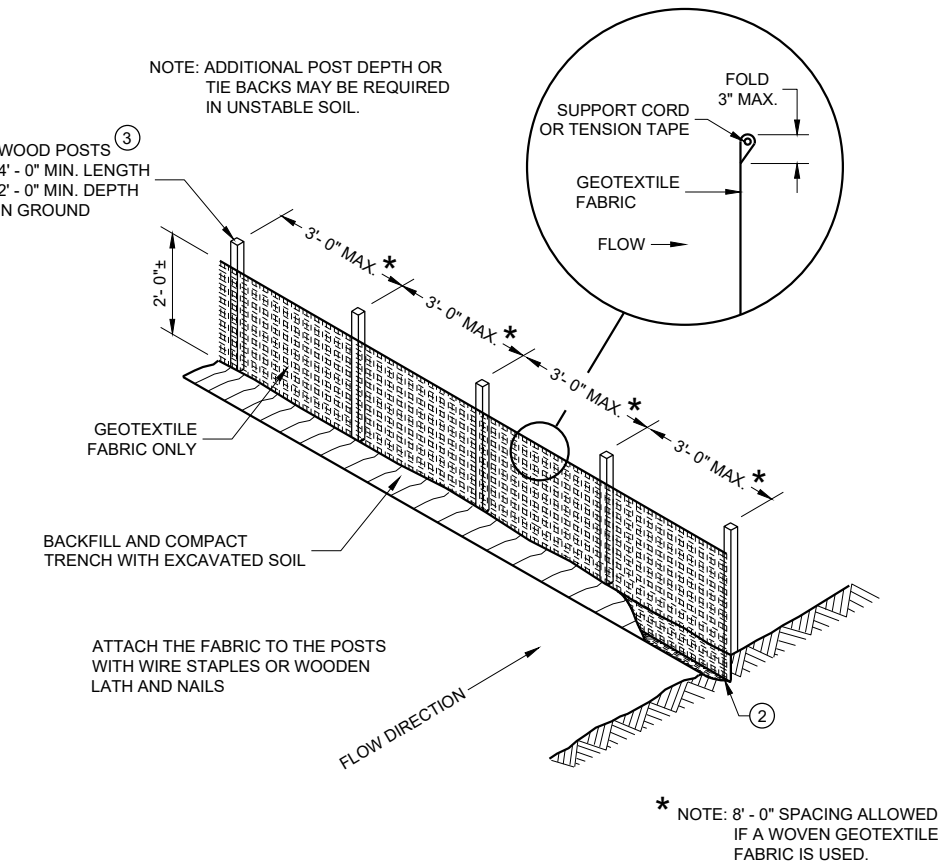
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

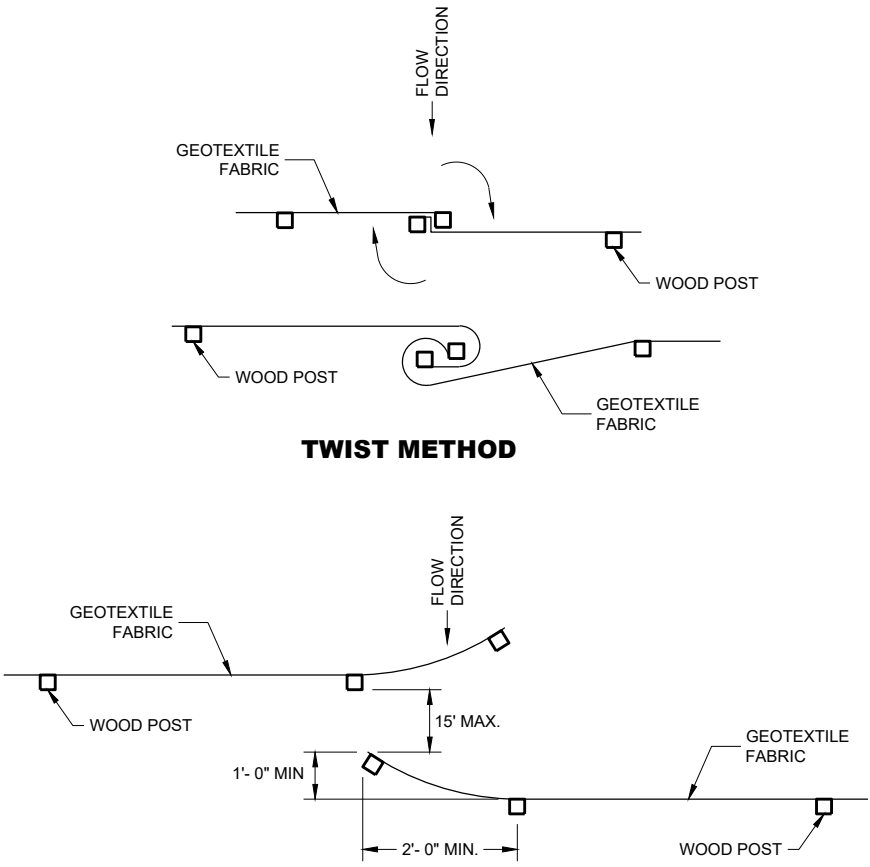
- 1 HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- 2 FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE AND 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL AND COMPACT TRENCH WITH EXCAVATED SOIL.
- 3 WOOD POSTS SHALL BE A MINIMUM SIZE OF 1 1/8" X 1 1/8" OF OAK OR HICKORY.
- 4 SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
- 5 CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS: A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



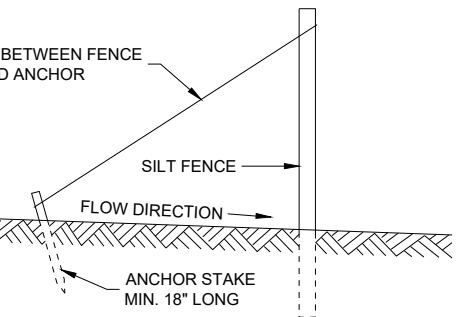
TRENCH DETAIL



SILT FENCE



JOINING TWO LENGTHS OF SILT FENCE



SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

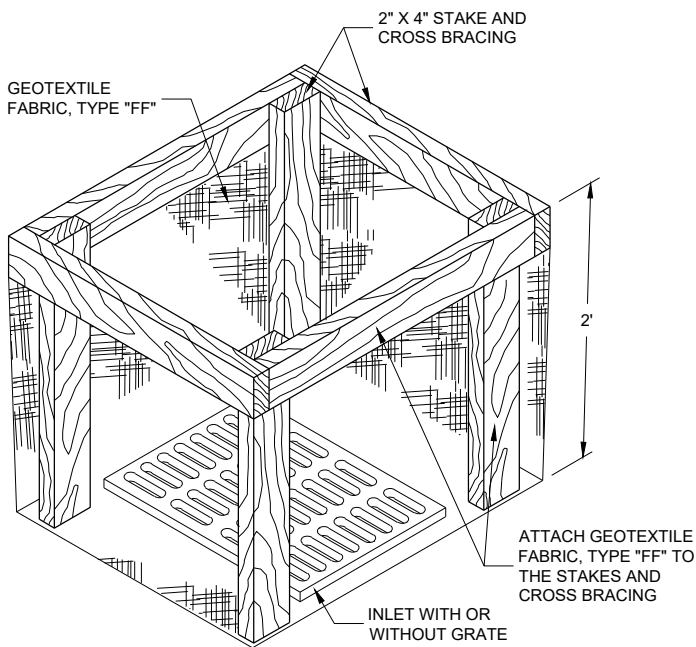
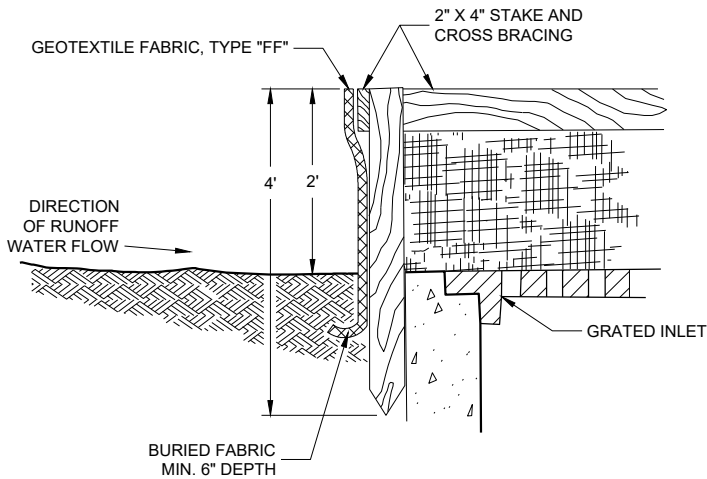
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4/29/05
DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT
ENGINEER

FHWA



SDD 08E10 Inlet Protection, Types A, B, C and D



INLET PROTECTION, TYPE "A"

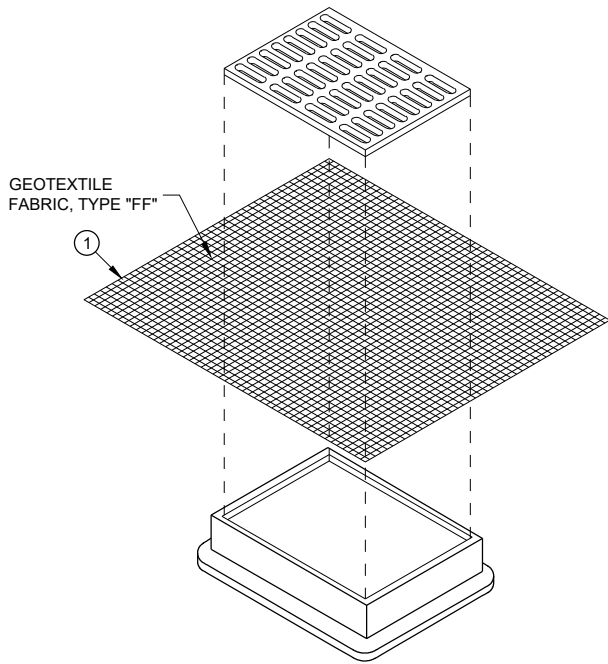
GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

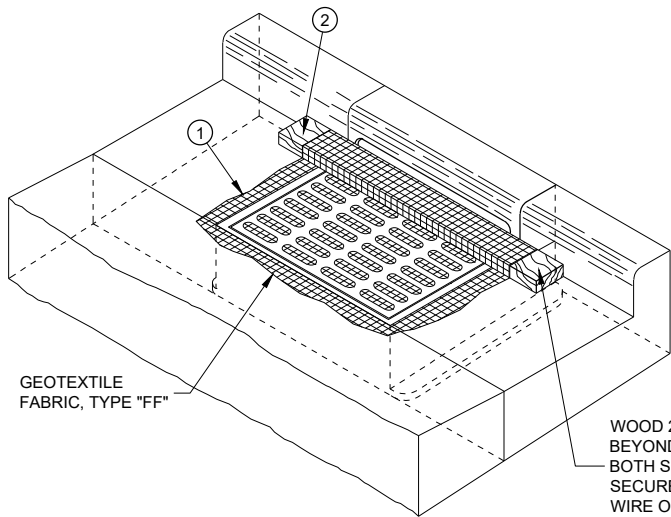
MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- 1 FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
- 2 FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.
- 3 FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.



INLET PROTECTION, TYPE "B"
(WITHOUT CURB BOX)
(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE "C"
(WITH CURB BOX)

INSTALLATION NOTES

TYPES B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

INLET SPECIFICATIONS
AS PER THE PLAN.
DIMENSION LENGTH
AND WIDTH TO MATCH

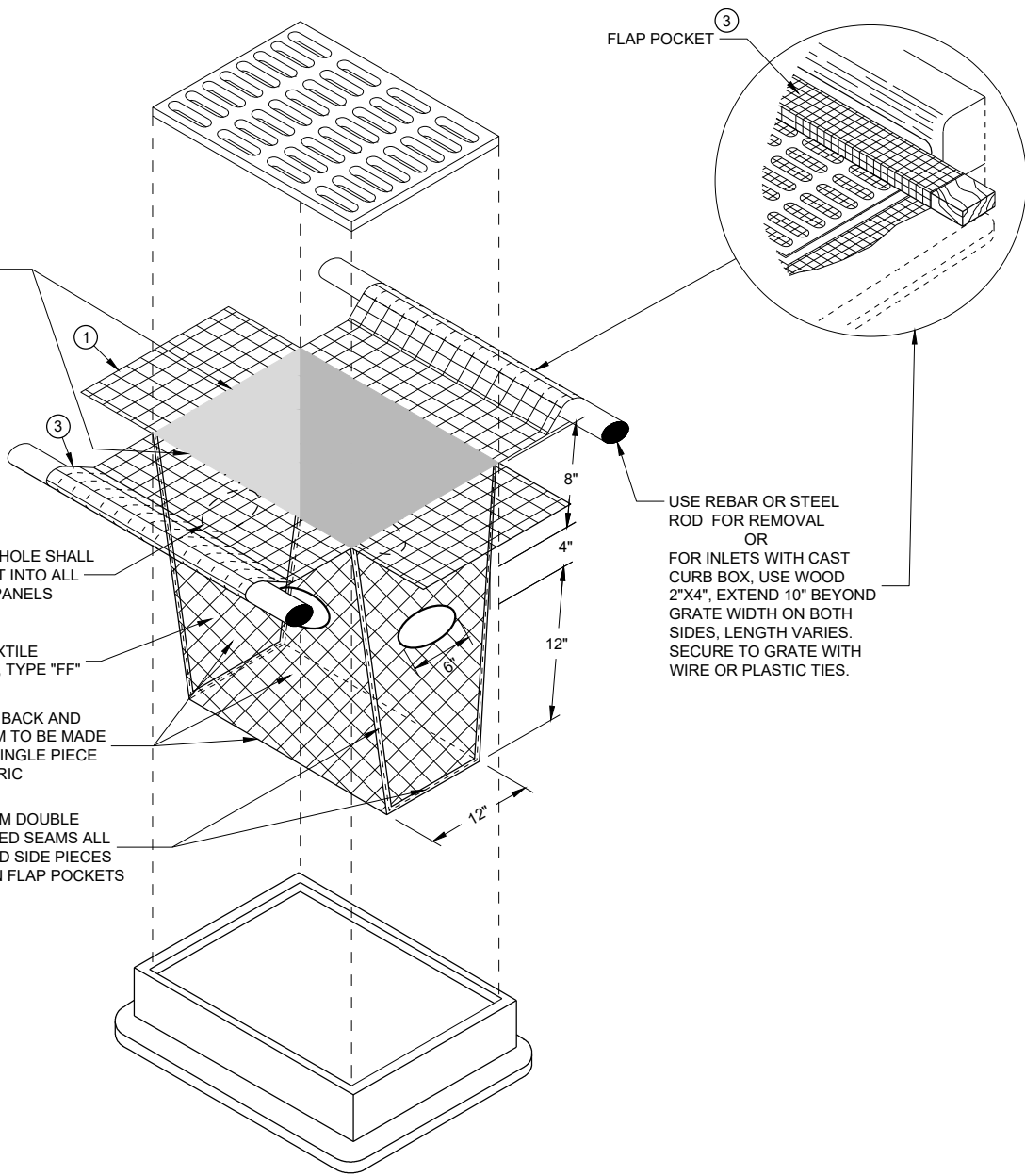
4" x 6" OVAL HOLE SHALL
BE HEAT CUT INTO ALL
FOUR SIDE PANELS

GEOTEXTILE
FABRIC, TYPE "FF"

FRONT, BACK AND
BOTTOM TO BE MADE
FROM SINGLE PIECE
OF FABRIC

MINIMUM DOUBLE
STITCHED SEAMS ALL
AROUND SIDE PIECES
AND ON FLAP POCKETS

WOOD 2" X 4" EXTENDS 8"
BEYOND GRATE WIDTH ON
BOTH SIDES. LENGTH VARIES.
SECURE TO GRATE WITH
WIRE OR PLASTIC TIES.



INLET PROTECTION, TYPE "D"
(CAN BE INSTALLED IN ANY INLET WITH OR
WITHOUT A CURB BOX AS PER NOTE 2)

INLET PROTECTION TYPES A, B, C AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/16/02

DATE

FHWA

/S/ Beth Cannestra

ROADWAY STANDARDS DEVELOPMENT

ENGINEER



SDD 08E14 Tracking Pad

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

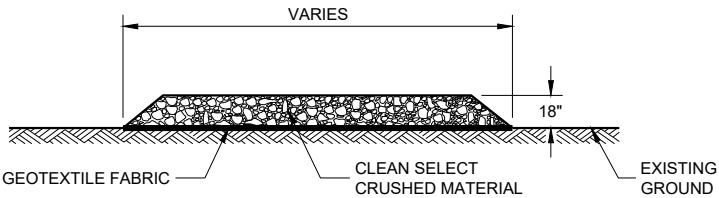
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

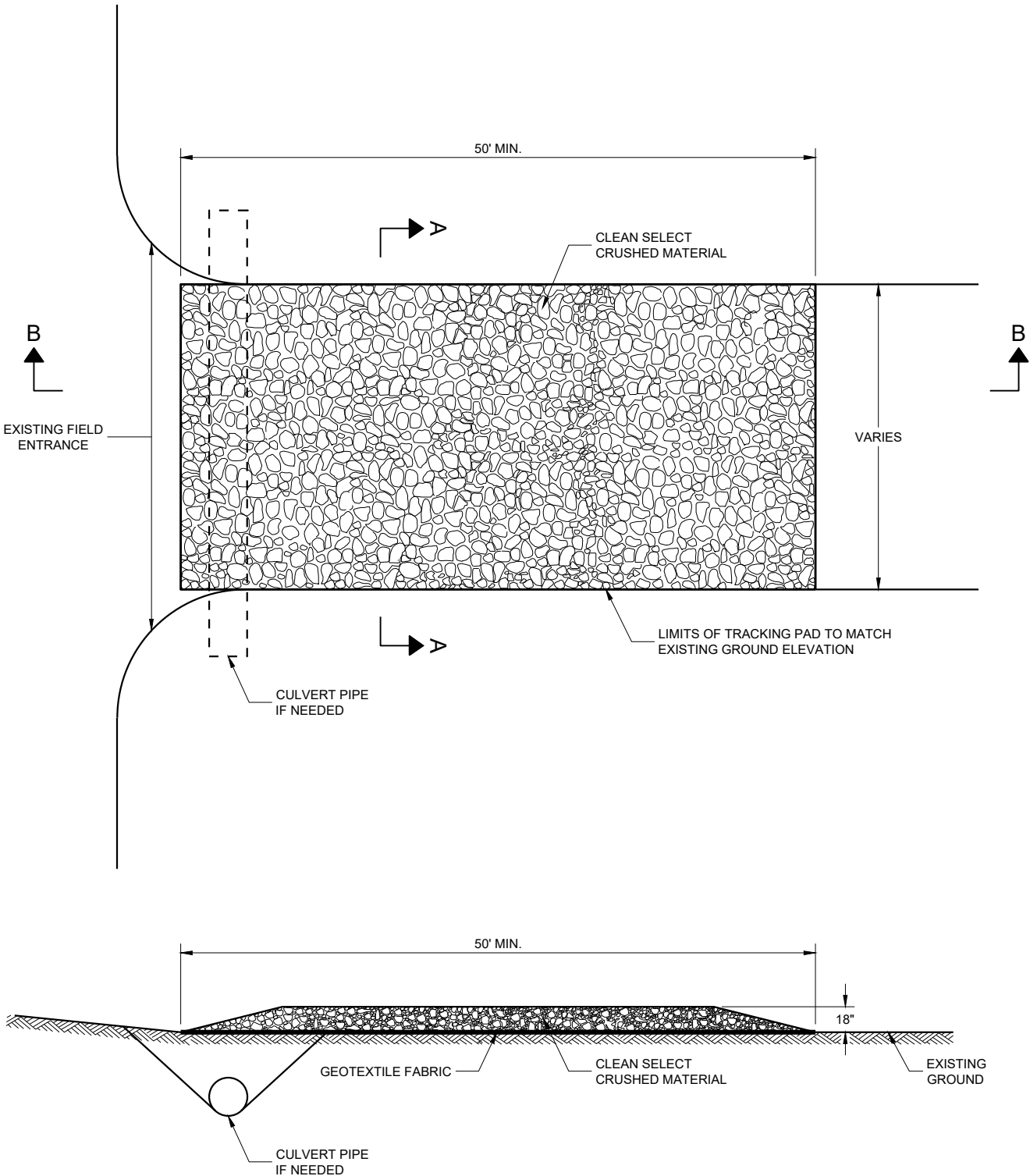
SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.



SECTION A - A



SECTION B - B

TRACKING PAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/24/2011

DATE

FHWA

/S/ Jerry H. Zogg

ROADWAY STANDARDS DEVELOPMENT

ENGINEER



SDD 8F1 Apron Endwalls for Culvert Pipe

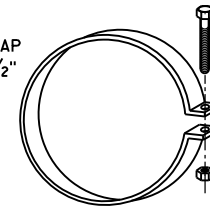
METAL APRON ENDWALLS											
PIPE DIA. (IN.)	MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1/2")	L (±1/2")	L ₁ ①	L ₂ ①	W (±2")		
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109x	.105x	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109x	.105x	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109x	.105x	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109x	.105x	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109x	.105x	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109x	.105x	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109x	.105x	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

* EXCEPT CENTER PANEL
SEE GENERAL NOTES

REINFORCED CONCRETE APRON ENDWALLS									
PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE	
	T	A	B	C	D	E	G		
12	2	4	24	48 1/8	72 1/8	24	2	3 to 1	
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1	
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1	
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1	
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 to 1	
27	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	3 to 1	
30	3 1/2	12	54	19 3/4	73 1/2	60	3 1/2	3 to 1	
36	4	15	63	34 3/4	97 3/4	72	4	3 to 1	
42	4 1/2	21	63	35	98	78	4 1/2	3 to 1	
48	5	24	72	26	98	84	5	3 to 1	
54	5 1/2	27	65	33 1/4-35	98 1/4-100	90	5 1/2	2 1/2 to 1	
60	6	30-35	60	39	99	96	5	2 to 1	
66	6 1/2	24-30	72-78	21-27	99	102	5 1/2	2 to 1	
72	7	24-36	78	21	99	108	6	2 to 1	
78	7 1/2	24-36	78	21	99	114	6 1/2	2 to 1	
84	8	36	90 1/2	21	111 1/2	120	6 1/2	1 1/2 to 1	
90	8 1/2	41	87 1/2	24	111 1/2	132	6 1/2	1 1/2 to 1	

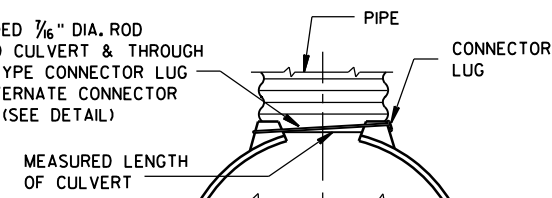
* MINIMUM
** MAXIMUM

1" WIDE, 12 GA. (0.109"
THICK) GALVANIZED STRAP
WITH STANDARD 6" X 1/2"
BAND BOLT AND NUT



ALTERNATE FOR TYPE 1 CONNECTION
END SECTION CONNECTOR STRAP

THREADED 1/8" DIA. ROD
AROUND CULVERT & THROUGH
TANK TYPE CONNECTOR LUG
OR ALTERNATE CONNECTOR
STRAP (SEE DETAIL)



TYPE 1
FOR 12" THRU 24" CORR. PIPE

THREADED 1/8" DIA. ROD
OVER TOP OF APRON, SIDE
LUGS TO BE RIVETED TO
APRON



TYPE 2
FOR 30" THRU 96" CORR. PIPE

MEASURED LENGTH
OF CULVERT

CONNECTOR SECTION
TO BE PAID FOR AS
PART OF END SECTION

COUPLING BAND
REQUIRED

12"

RIVETED OR
BOLTED

TYPE 3
FOR 42" THRU 96" CORR. PIPE

DIMPLED OR CORRUGATED
COUPLING BAND

2 - 1/2" X 6"
BAND BOLTS

RIVETED OR BOLTED AT
DIMPLES (6" C-C FOR
CORRUGATED BAND)

MEASURED
LENGTH
OF CULVERT

TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

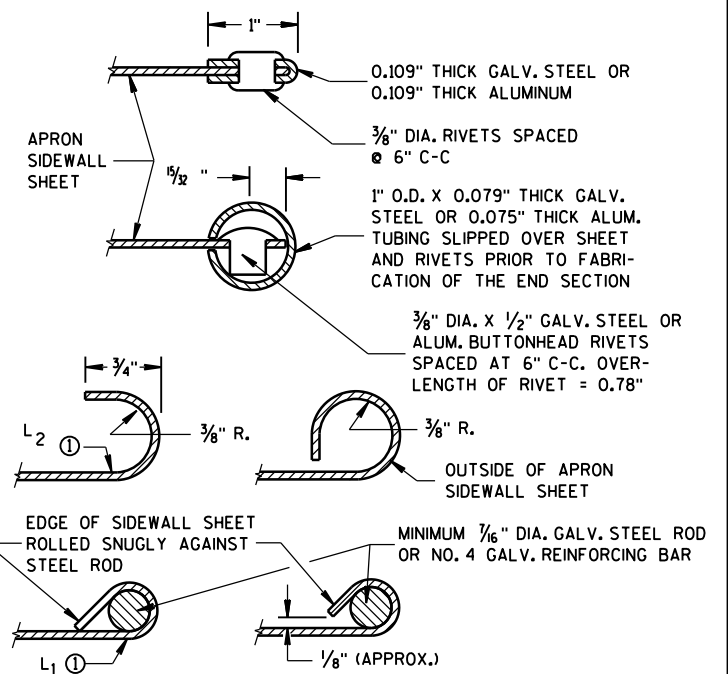
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL,
AND CORRUGATED BAND FITS INSIDE ENDWALL.
DIMPLED BAND MAY BE USED WITH HELICALLY
CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE
ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5
AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL
CONNECTION DETAILS 1, 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO
CIRCUMFERENTIAL CORRUGATIONS AT EACH END
USE ENDWALL CONNECTION DETAILS 1, 2 OR 3.

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON
THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE
STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL
OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR
ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE
OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND
LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL
THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND
LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH
OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE
PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS
FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS.
FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED
EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH
GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE
ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM
NUTS AND BOLTS FOR ALUMINUM UNITS.

WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT
TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT
TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED
INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

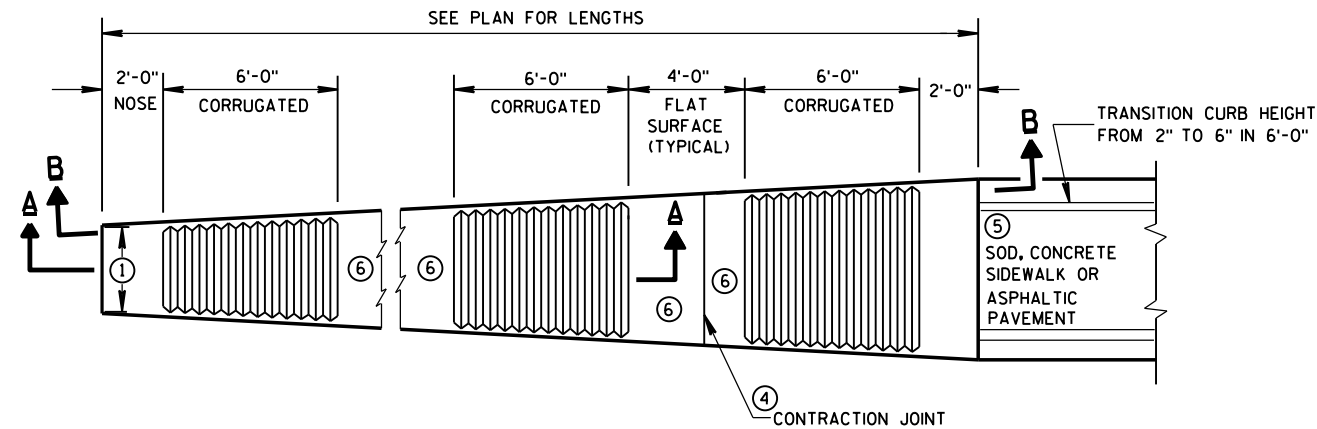
APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

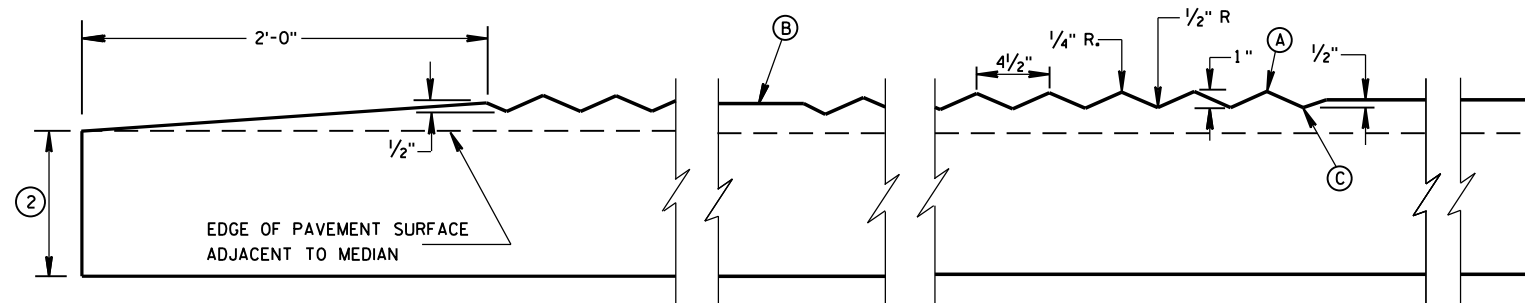
APPROVED
8-30-94
DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA



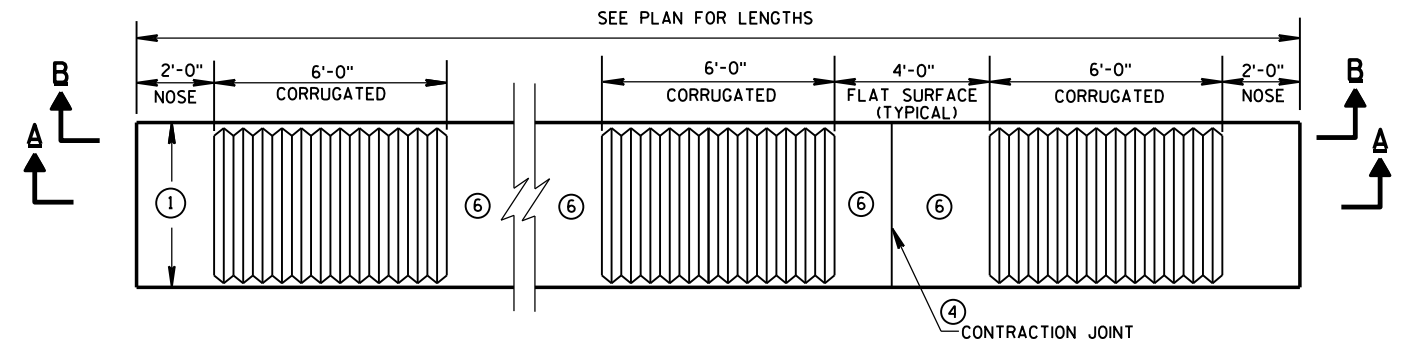
SDD 11B1 Concrete Corrugated Median



PLAN VIEW
VARIABLE WIDTH CONCRETE CORRUGATED MEDIAN



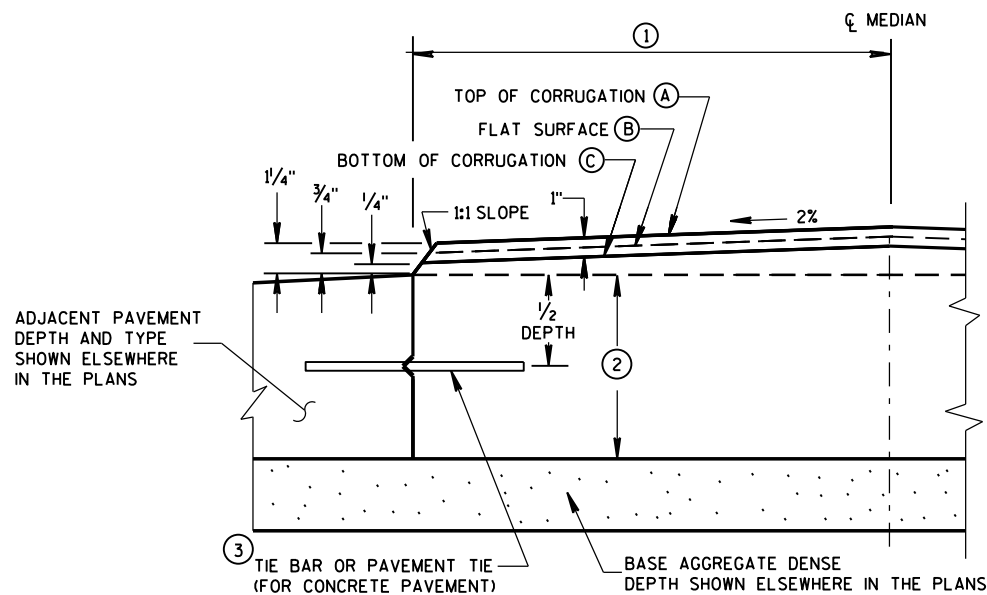
SECTION A-A
LONGITUDINAL SECTION



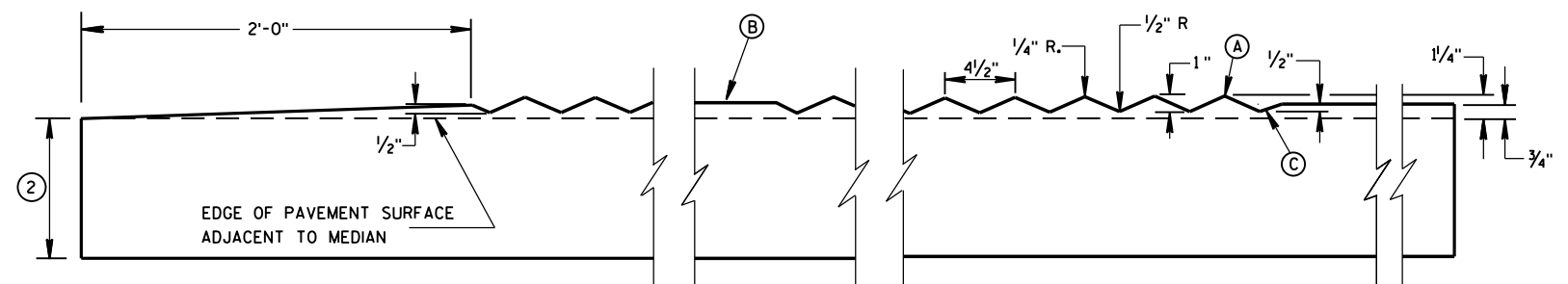
PLAN VIEW
UNIFORM WIDTH CONCRETE CORRUGATED MEDIAN

GENERAL NOTES

- SEE PLANS FOR CONSTANT OR VARIABLE WIDTH.
- THE DEPTH OF THE CONCRETE CORRUGATED MEDIAN SHALL BE 9-INCHES UNLESS SHOWN OTHERWISE IN THE PLAN. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN IN THE PLAN. TYPICAL OPTIONS ARE:
 - NEW OR EXISTING CONCRETE PAVEMENT.
 - ASPHALTIC CONCRETE OVER NEW OR EXISTING CONCRETE BASE COURSE, OR PAVEMENT.
 - ASPHALTIC PAVEMENT OVER BASE AGGREGATE DENSE.
- TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C. INSTALL TIE BARS TO MAINTAIN A MINIMUM OF 3-INCHES OF COVER BETWEEN THE TIE BAR AND THE CONCRETE SURFACE (BOTTOM AND TOP). PAVEMENT TIES REQUIRED IN EXISTING CONCRETE PAVEMENT OR CONCRETE BASE COURSE, PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.
- CONCRETE CORRUGATED MEDIAN CONTRACTION JOINTS SHALL BE CONSTRUCTED TO MATCH THE JOINTS IN ADJACENT CONCRETE PAVEMENT. WHERE ADJACENT PAVEMENT IS ASPHALT WITH BASE AGGREGATE DENSE. TRANSVERSE CONTRACTION JOINTS SHALL BE PROVIDED AT 20 FOOT INTERVALS.
- SURFACE TYPE AND DETAILS ARE DEFINED ELSEWHERE IN THE PLAN.
- YELLOW MARKING ON FLAT SURFACE WHEN MEDIAN SEPARATES OPPOSING TRAFFIC.



HALF CROSS SECTION
CONCRETE CORRUGATED MEDIAN AND ADJACENT PAVEMENT



SECTION B-B
LONGITUDINAL SECTION

CONCRETE CORRUGATED MEDIAN

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

12/17/07

DATE

FHWA

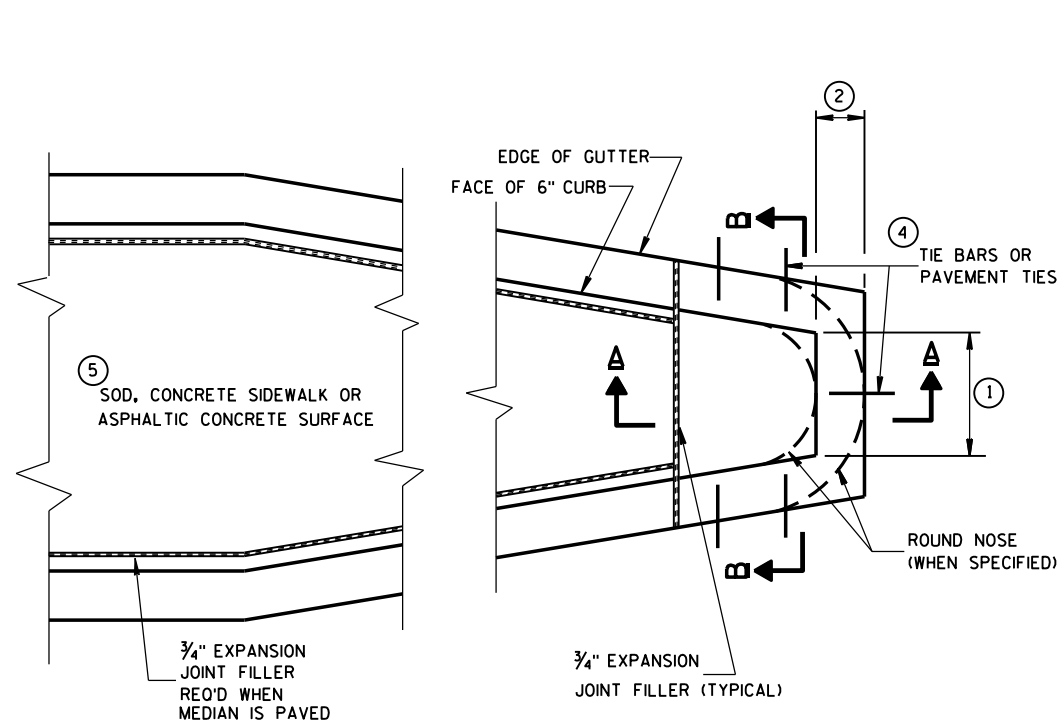
/S/ Jerry H. Zogg

ROADWAY STANDARDS DEVELOPMENT

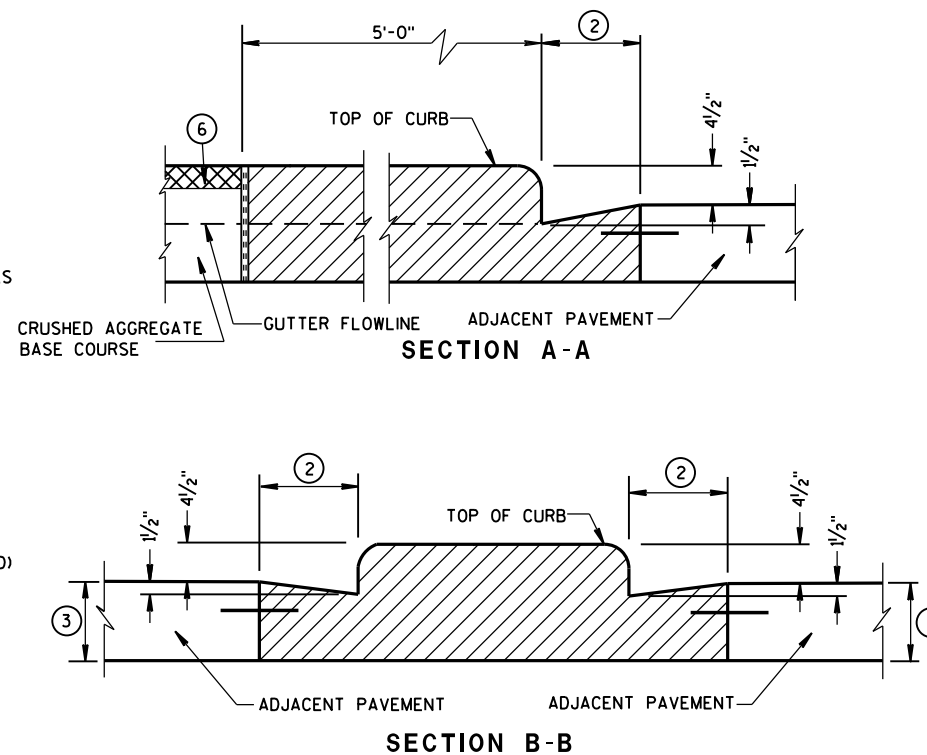
ENGINEER



SDD 11B2 Concrete Median Nose



CONCRETE MEDIAN BLUNT NOSE DETAIL

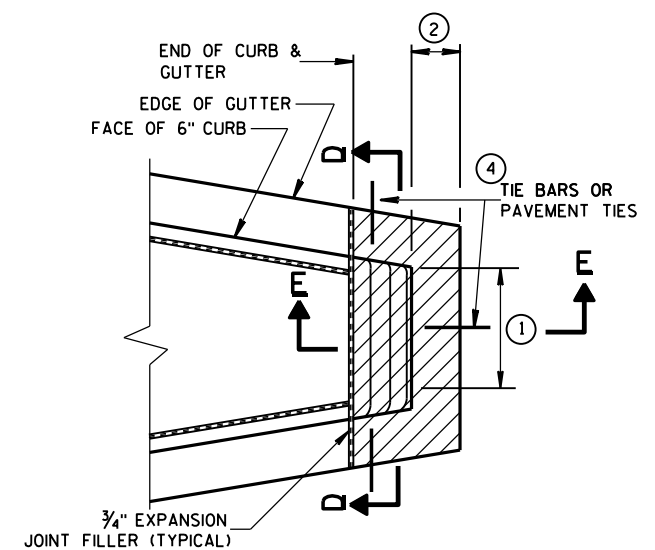


SECTION B-B

GENERAL NOTES

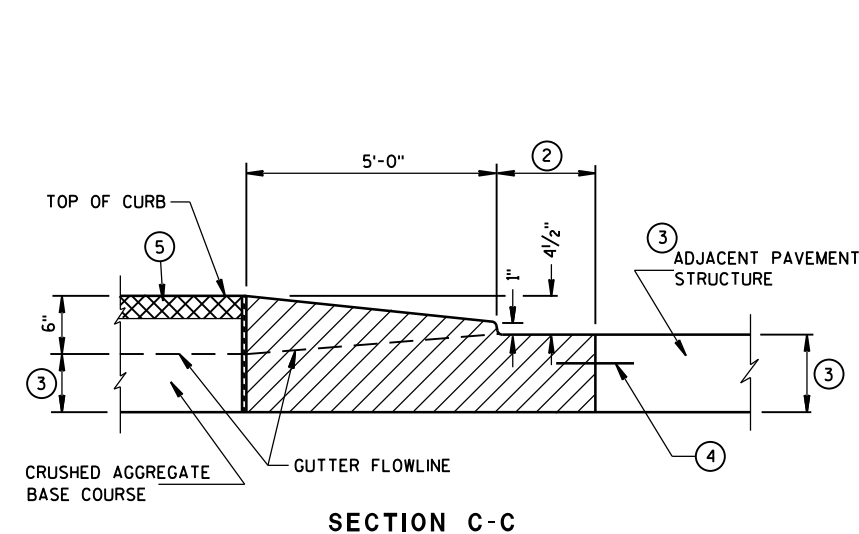
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

- SEE PLAN FOR MEDIAN NOSE WIDTH AND RADIUS (FOR ROUND NOSE ALTERNATE).
- WIDTH OF GUTTER TO MATCH EXISTING ADJACENT GUTTER OR AS SPECIFIED ELSEWHERE IN THE PLAN.
- DEPTH EQUAL TO ADJACENT PAVEMENT. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN ON THE PLAN. TYPICAL OPTIONS ARE:
 - NEW OR EXISTING CONCRETE PAVEMENT.
 - ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.
 - ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.
- TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C. PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1 THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.
- SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

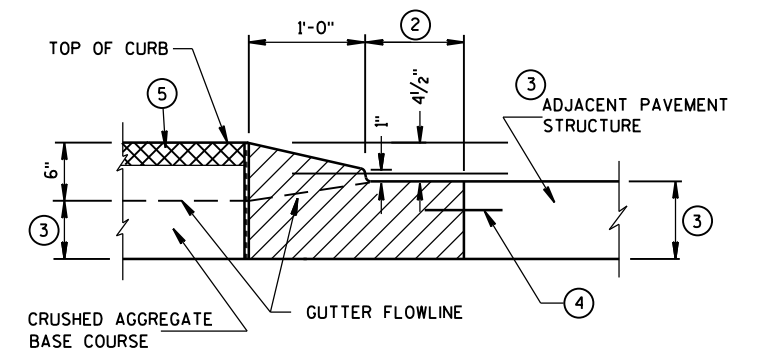


SECTION E-E

CONCRETE MEDIAN SLOPED NOSE TYPE 2



SECTION C-C



SECTION D-D

CONCRETE MEDIAN SLOPED NOSE TYPE 1

CONCRETE MEDIAN NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6-8-2006

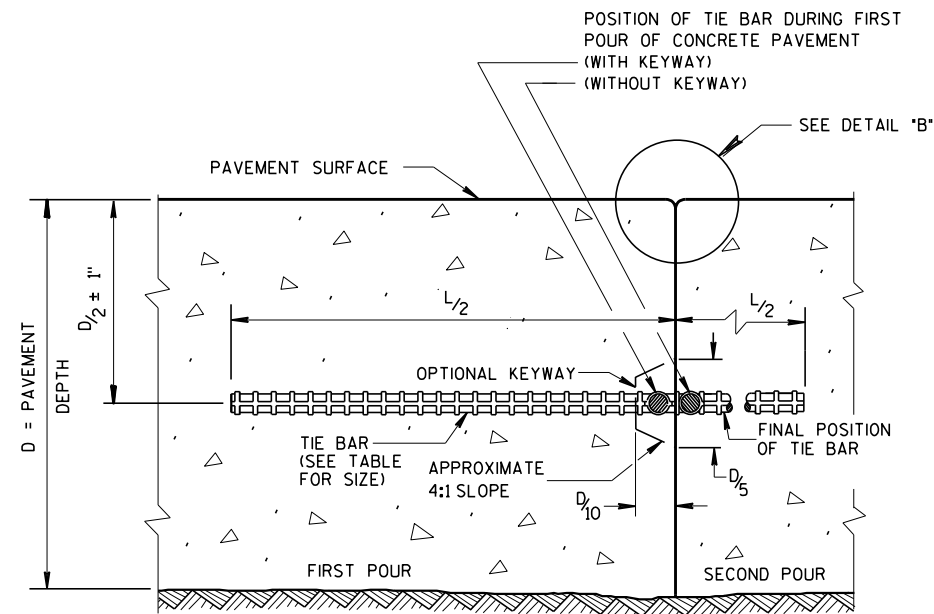
DATE

FHWA

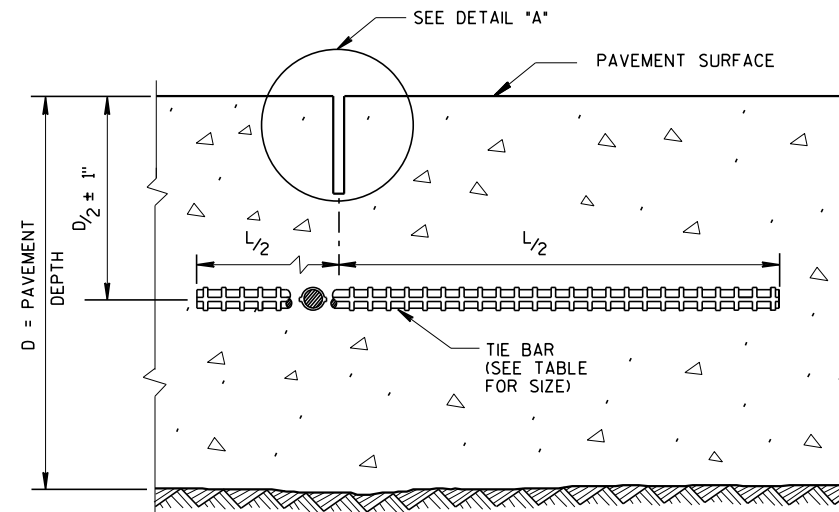
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



SDD 13C1 Concrete Pavement Longitudinal Joints and Ties



CONSTRUCTION JOINT



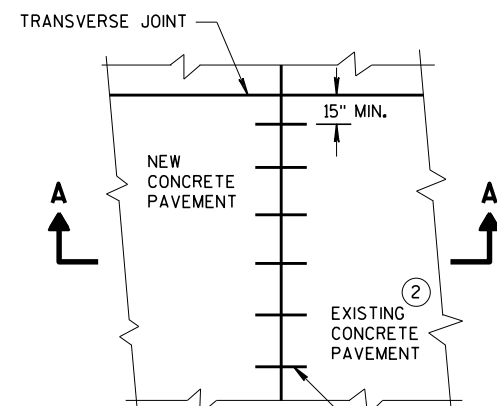
SAWED JOINT

GENERAL NOTES

CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

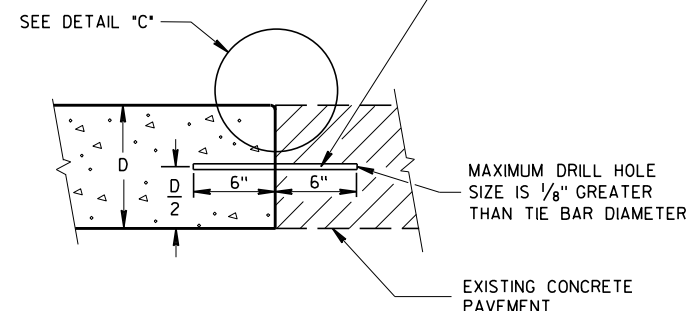
CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

- ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.
- PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

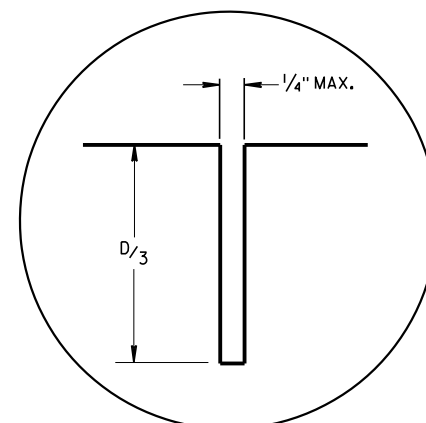


PLAN VIEW

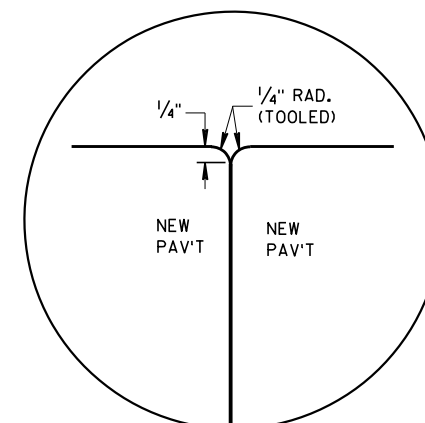
NO. 6 TIE BARS SPACED 30" C-C, INSTALLED PERPENDICULAR TO THE LONGITUDINAL JOINT. ①



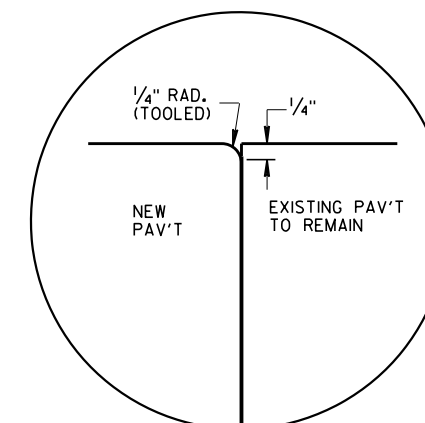
SECTION A-A
LONGITUDINAL CONSTRUCTION JOINT
TIE BARS ANCHORED
INTO EXISTING PAVEMENT



DETAIL "A"



DETAIL "B"



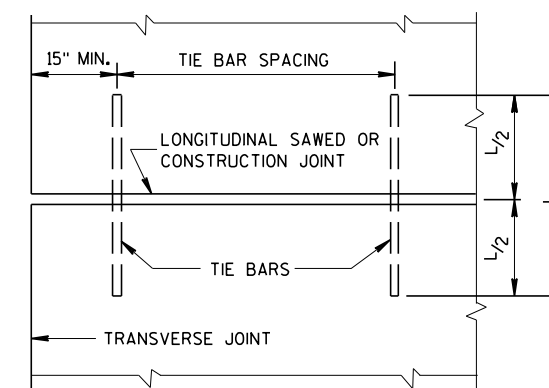
DETAIL "C"

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.



PLAN VIEW
SHOWING LOCATION OF TIE BARS

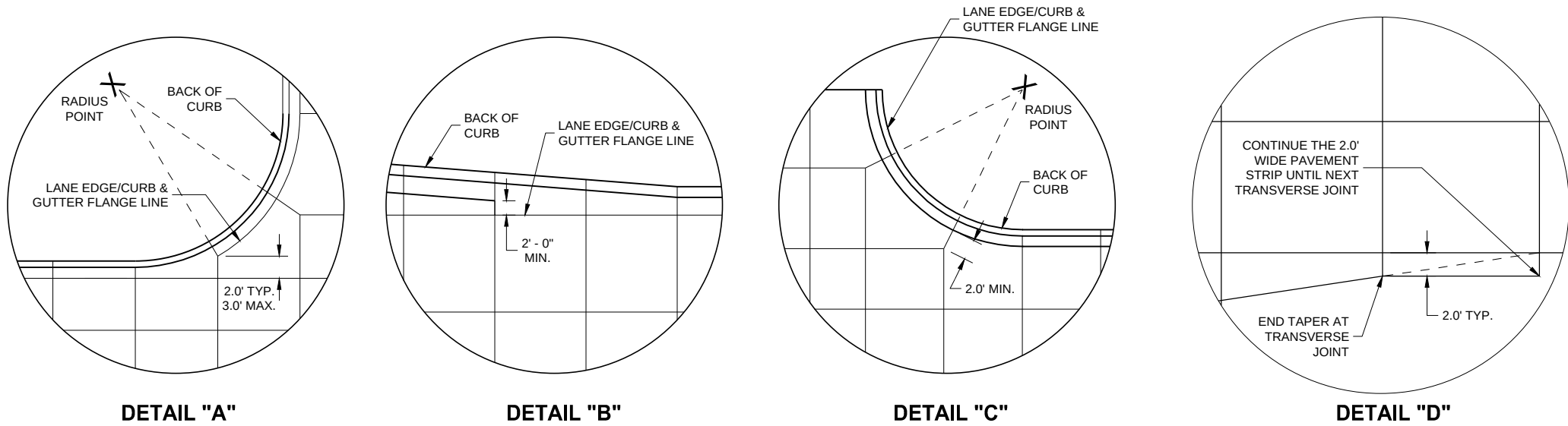
CONCRETE PAVEMENT
LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

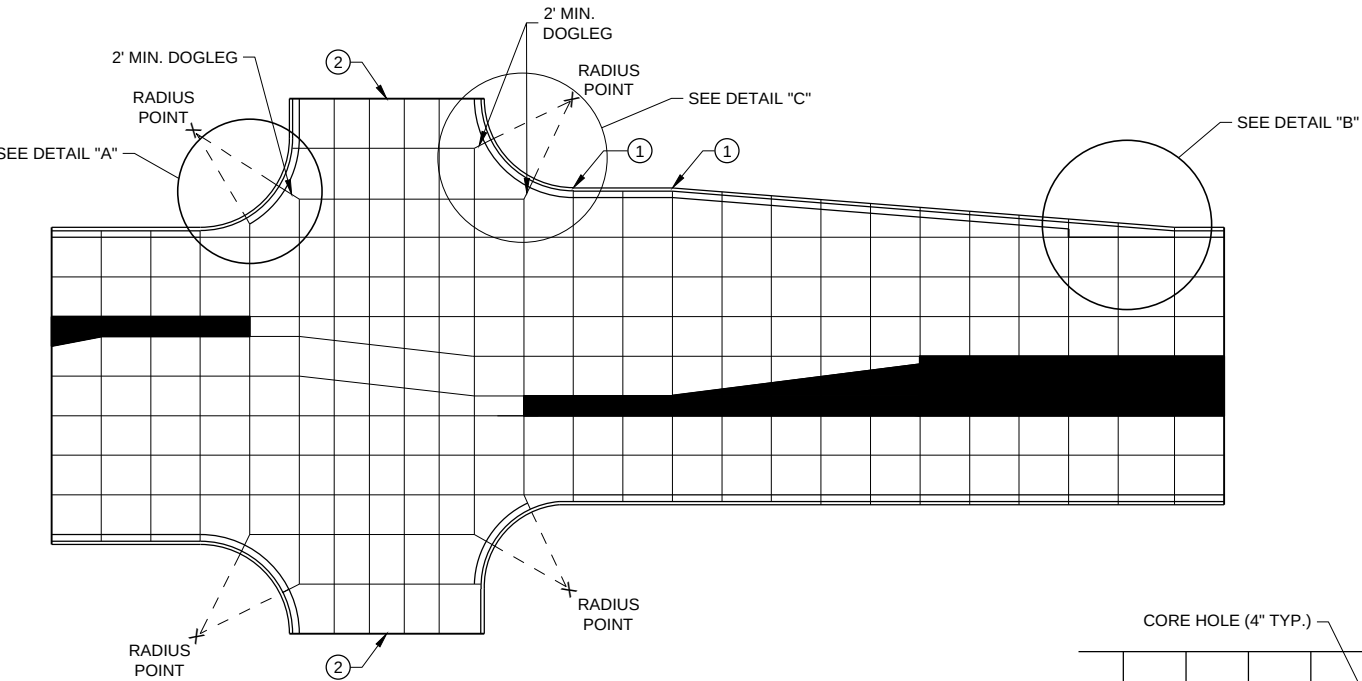
APPROVED
March 2018 /S/ Peter Kemp, P.E.
DATE PAVEMENT SUPERVISOR
FHWA



SDD 13C18-a Concrete Pavement Jointing

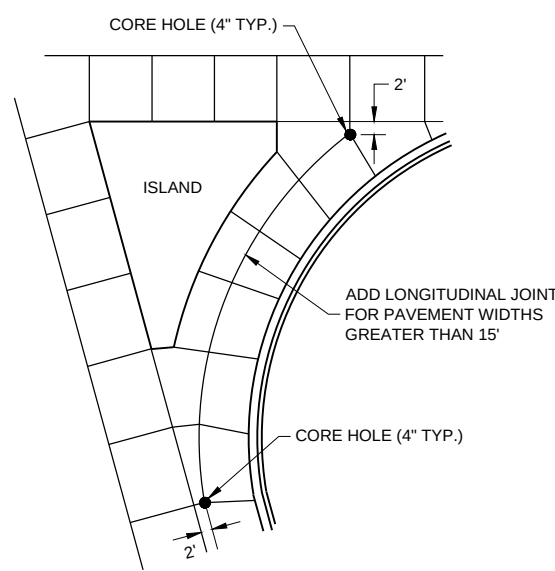
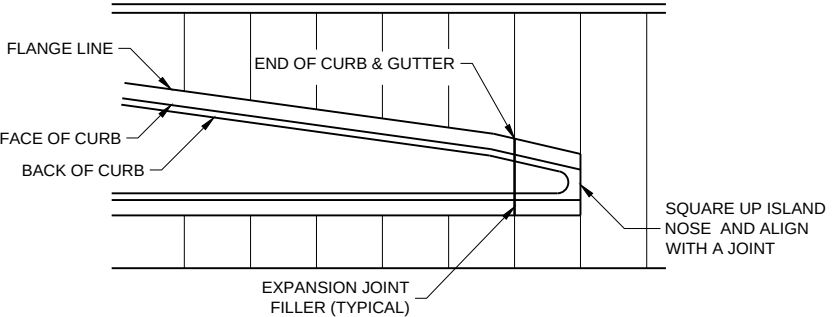
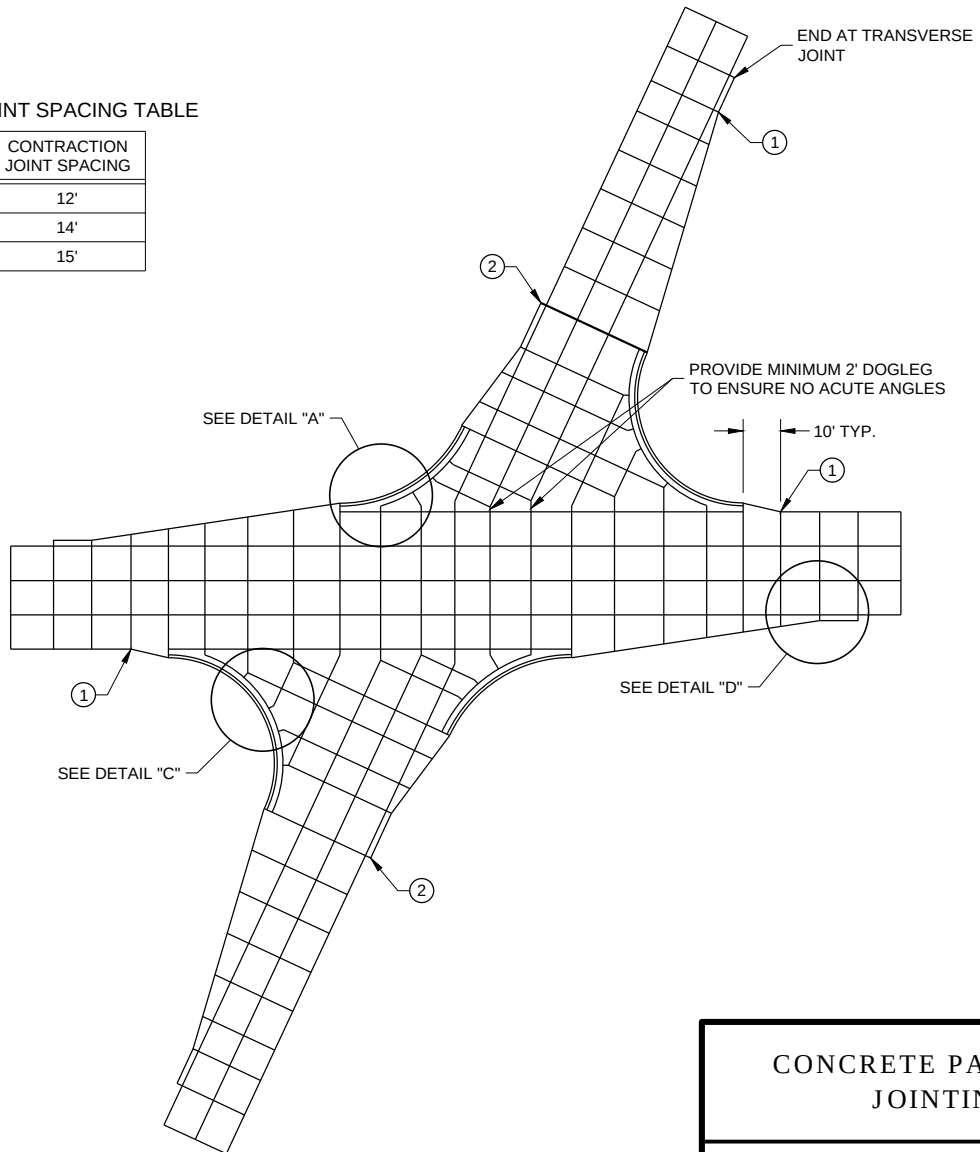


- GENERAL NOTES**
- THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.
 - ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.
 - CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.
 - ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G. MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.
 - AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.
 - SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.
 - AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.
 - CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.
- PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
 - CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
 - THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



PAVEMENT DEPTH AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6 1/2"	12'
7", 7 1/2"	14'
8" & ABOVE	15'



CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 13C18 - 07 a

SDD 13C18 - 07 a



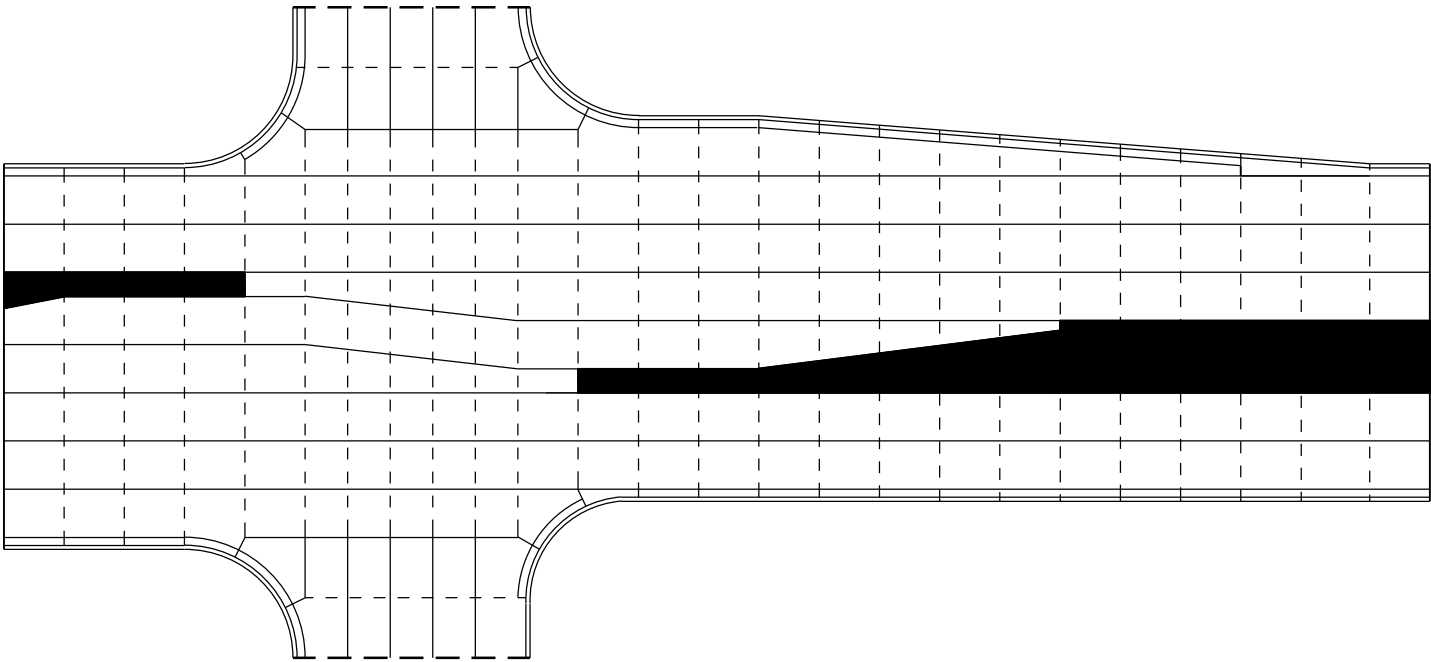
SDD 13C18-b Concrete Pavement Steel Reinforcement

LEGEND

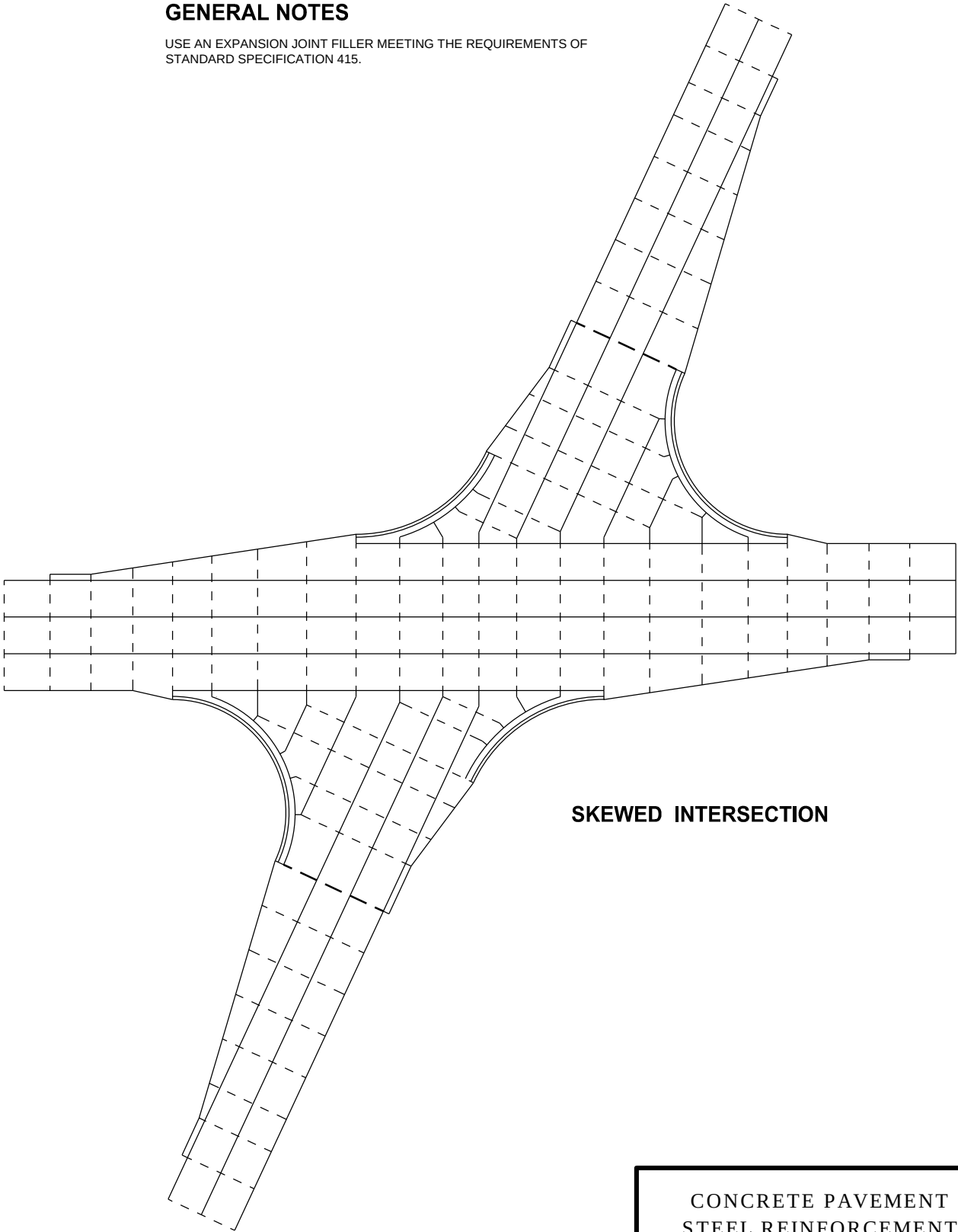
- POTENTIAL DOWELED EXPANSION JOINT
- - - DOWELED JOINT
- _____ TIED JOINT

GENERAL NOTES

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



STANDARD INTERSECTION



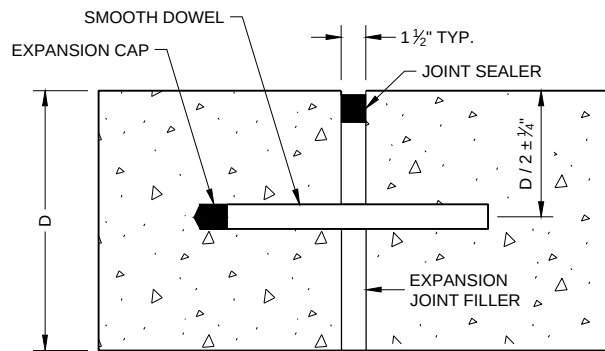
SKEWED INTERSECTION

CONCRETE PAVEMENT
STEEL REINFORCEMENT

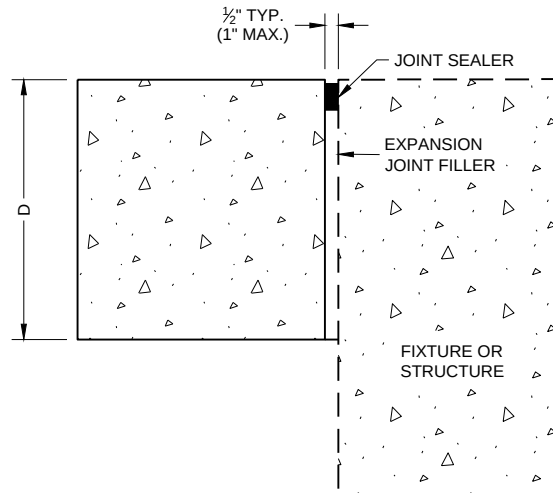
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



SDD 13C18-c Concrete Pavement Joint Types

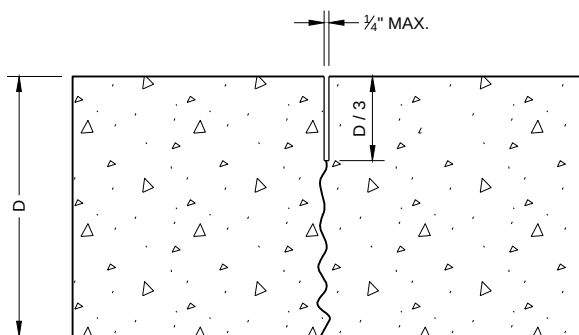


DOWELED TRANSVERSE ①

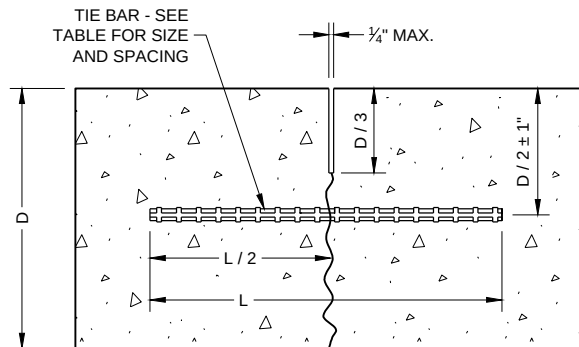


UNTIED - LONGITUDINAL

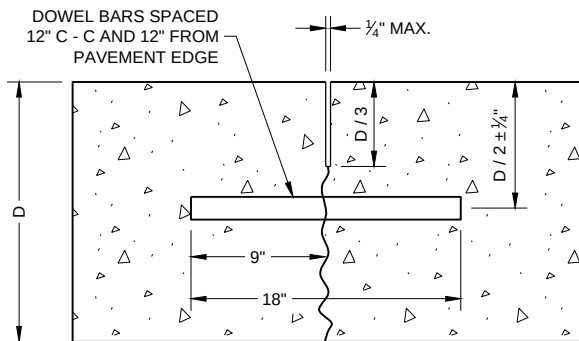
EXPANSION JOINTS



UNDOWELED TRANSVERSE

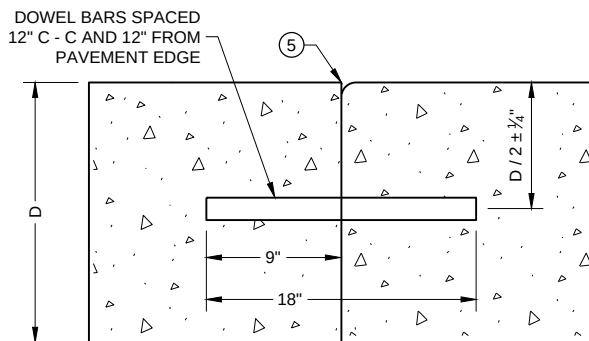


TIED LONGITUDINAL

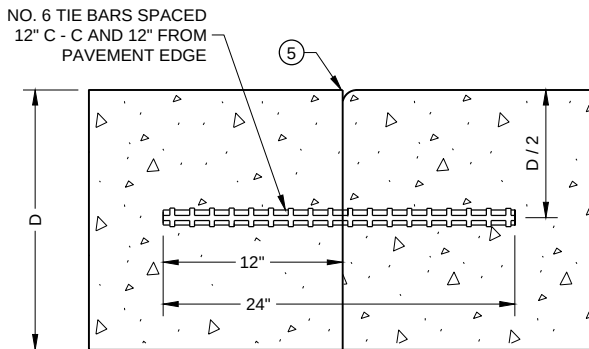


DOWELED TRANSVERSE

CONTRACTION JOINTS ②

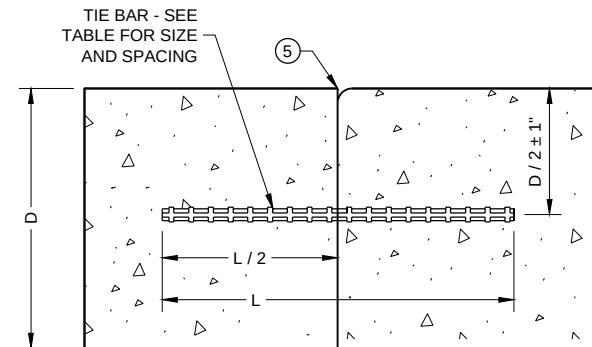


DOWELED TRANSVERSE ③

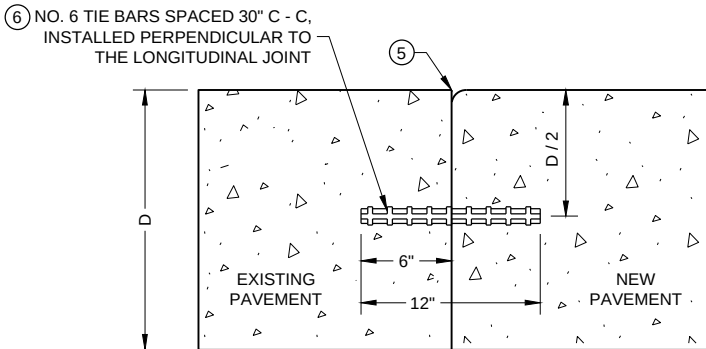


TIED TRANSVERSE ③
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)

CONSTRUCTION JOINTS ④



TIED LONGITUDINAL



TIED LONGITUDINAL TO EXISTING

TIE BAR TABLE			
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
	NO. 5	36"	36"
≥ 10 1/2"	NO. 4*	30"	24" **

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

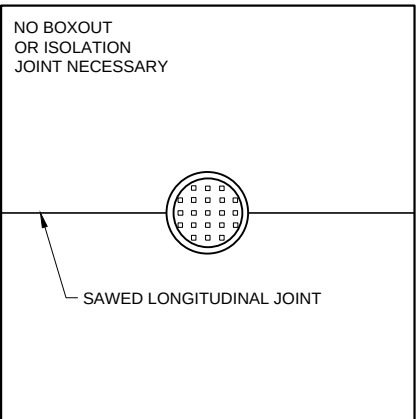
** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

GENERAL NOTES

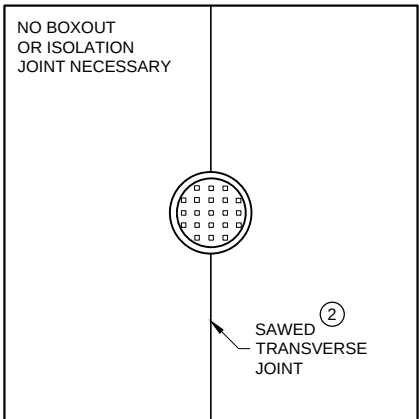
- ① USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATE THE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
- ② SPACE CONTRACTION JOINTS IN ACCORDANCE WITH SDD 13C4, 13C11 OR 13C13.
- ③ LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.
- ④ CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
- ⑤ IF JOINT IS FORMED, PROVIDE A 1/4" RADIUS.
- ⑥ ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

CONCRETE PAVEMENT
JOINT TYPES

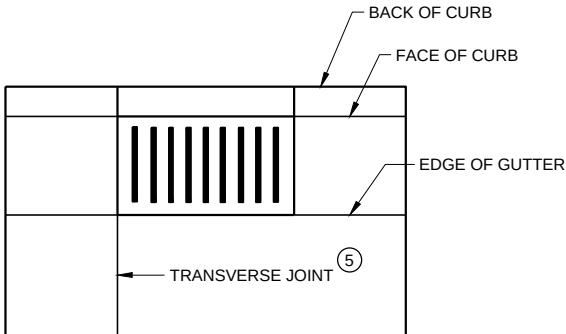
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



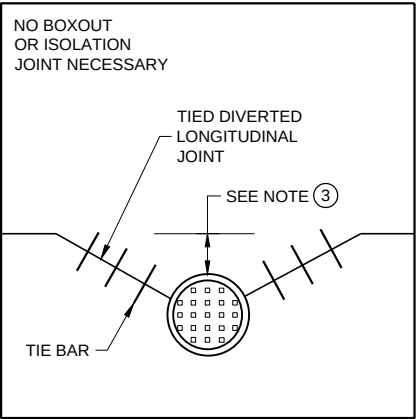
MANHOLE WITH LONGITUDINAL JOINT



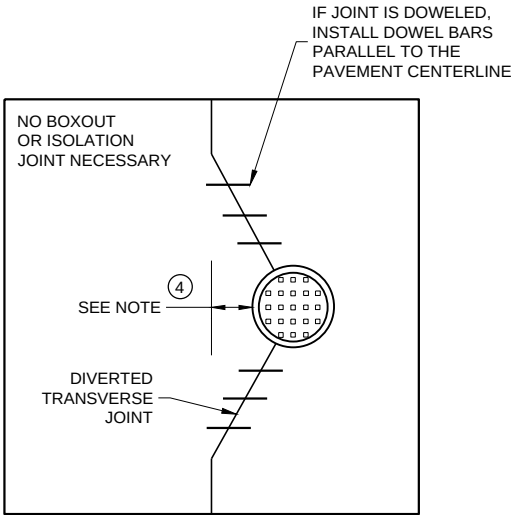
MANHOLE WITH TRANSVERSE JOINT



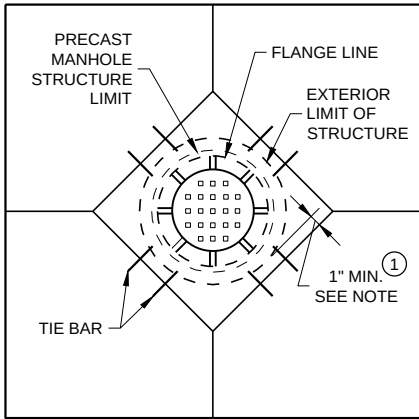
INLET WITH TRANSVERSE JOINT



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT



DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS

GENERAL NOTES

- ① USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1 FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.
- ② ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.
- ③ IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDINAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REINFORCEMENT REBAR AROUND THE MANHOLE.
- ④ IF THE DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS LESS 4 FEET OR LESS, REDIRECT JOINT TO INTERSECT THE CENTER OF THE MANHOLE. IF DISTANCE IS GREATER THAN 4 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REINFORCEMENT REBAR AROUND THE MANHOLE.
- ⑤ ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.

CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2018 DATE	/S/ Peter Kemp P.E. PAVEMENT SUPERVISOR



SDD 15C19-a Moving Pavement Marking Operation, Two-Lane Two-Way Roadway

LEGEND

- V1 LEAD VEHICLE
V2 MARKING VEHICLE
V3 SHADOW VEHICLE
- TRUCK MOUNTED ATTENUATOR (TMA)
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- FLASHING ARROW PANEL (CAUTION)

GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL OPERATING IN CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE SPECIFIED.

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL AND HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

THE WORK AND SHADOW VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS.

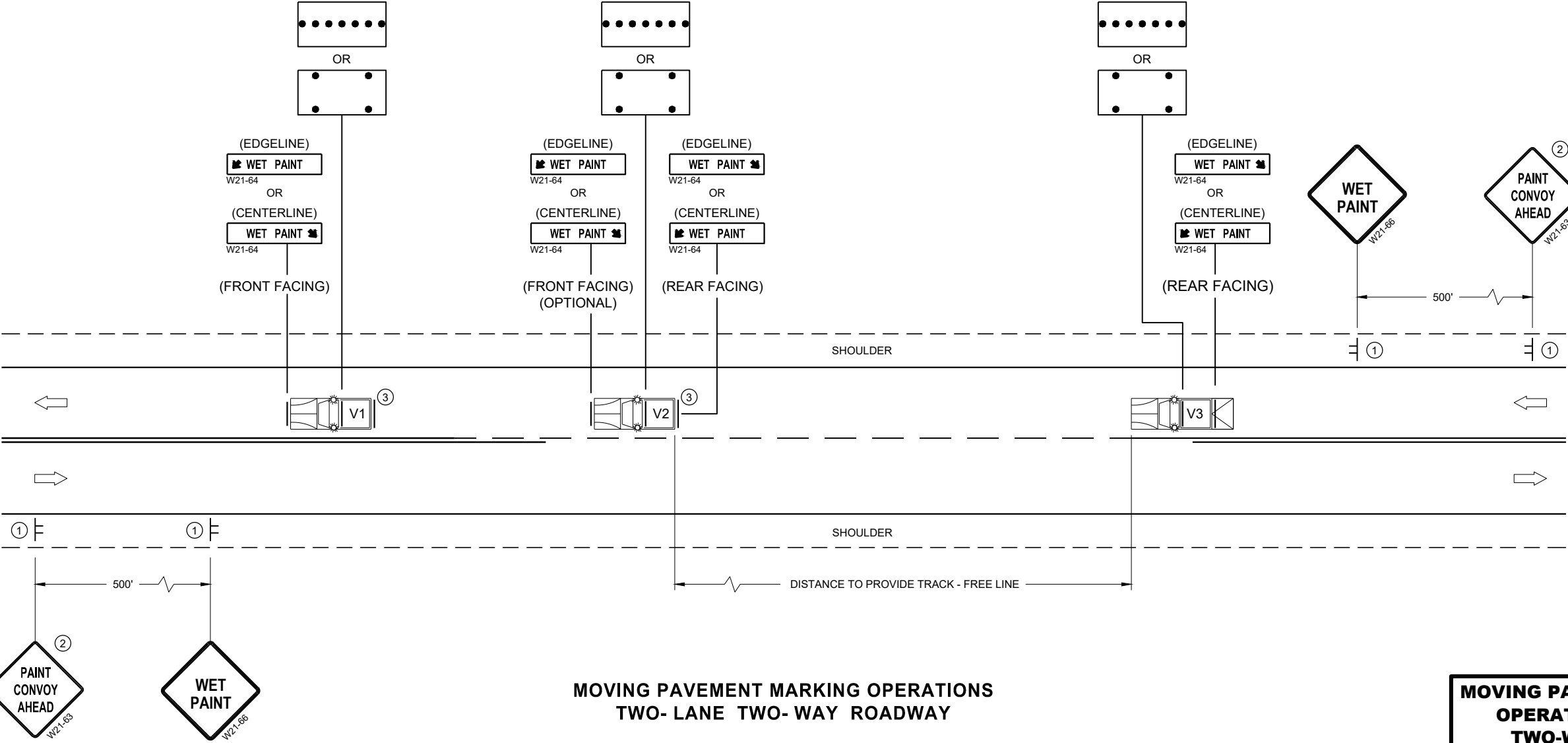
WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC.

CONES SHOULD BE USED BETWEEN THE MARKING AND SHADOW VEHICLE AT 100 FOOT SPACING. CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

CONES SHALL BE A MINIMUM OF 28" FOR WET PAVEMENT MARKING .

- ① SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.
- ② IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1A OR W21-63 ARE NOT REQUIRED.
- ③ V1 AND V2 CAN BE SWITCHED SO THAT THE MARKER IS THE LEAD VEHICLE.

6



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SDD 15C19 - 07a

MOVING PAVEMENT MARKING OPERATIONS TWO-LANE TWO-WAY ROADWAY

MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2022 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

SDD 15C19 - 07a

LEGEND

- | | |
|---|--------------------------------|
| V1 | LEAD VEHICLE |
| V2 | MARKING VEHICLE |
| V3 | SHADOW VEHICLE |
|  | TRUCK MOUNTED ATTENUATOR (TMA) |
|  | SIGN ON TEMPORARY SUPPORT |
|  | DIRECTION OF TRAFFIC |
|  | FLASHING ARROW PANEL (MERGE) |
|  | FLASHING ARROW PANEL (CAUTION) |

GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE SPECIFIED.

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL AND HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

WHEN WORK ACTIVITY BLOCKS THE LEFT LANE, REVERSE TRAFFIC CONTROL.

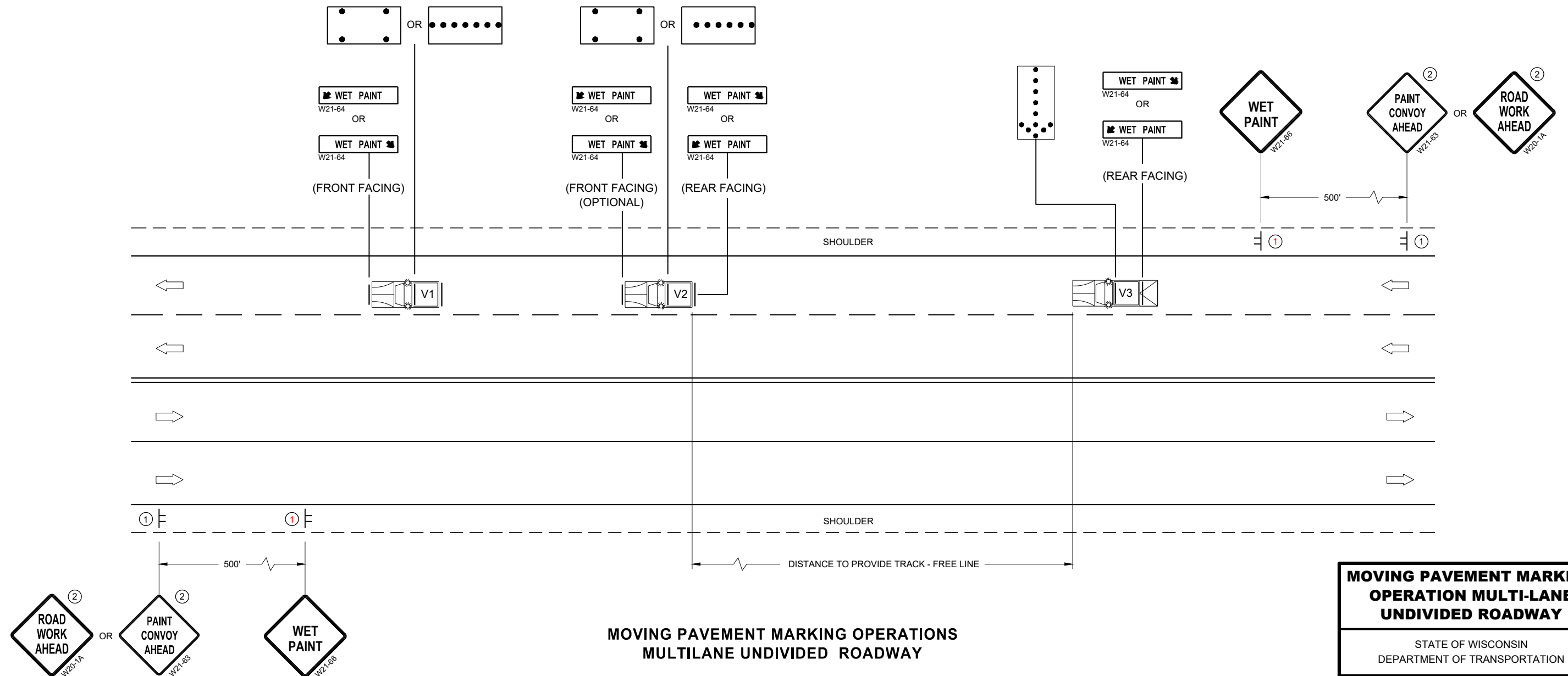
WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, PROVIDE ADDITIONAL TRAFFIC CONTROLS AS SPECIFIED IN THE CONTRACT OR AS APPROVED BY THE ENGINEER.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC.

CONES SHOULD BE USED BETWEEN THE MARKING AND SHADOW VEHICLES AT 100 FOOT SPACING. CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

CONES SHALL HAVE A MINIMUM HEIGHT OF 28" FOR WET PAVEMENT MARKINGS.

- ① SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.
- ② IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1A OR W21-63 ARE NOT REQUIRED.



MOVING PAVEMENT MARKING OPERATIONS MULTILANE UNDIVIDED ROADWAY

MOVING PAVEMENT MARKING OPERATION MULTI-LANE UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER



SDD 15D28 Traffic Control, Work on Shoulder or Parking Lane, Undivided Roadway

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- DIRECTION OF TRAFFIC
- WORK ZONE

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY THE REGIONAL TRAFFIC UNIT.

"WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

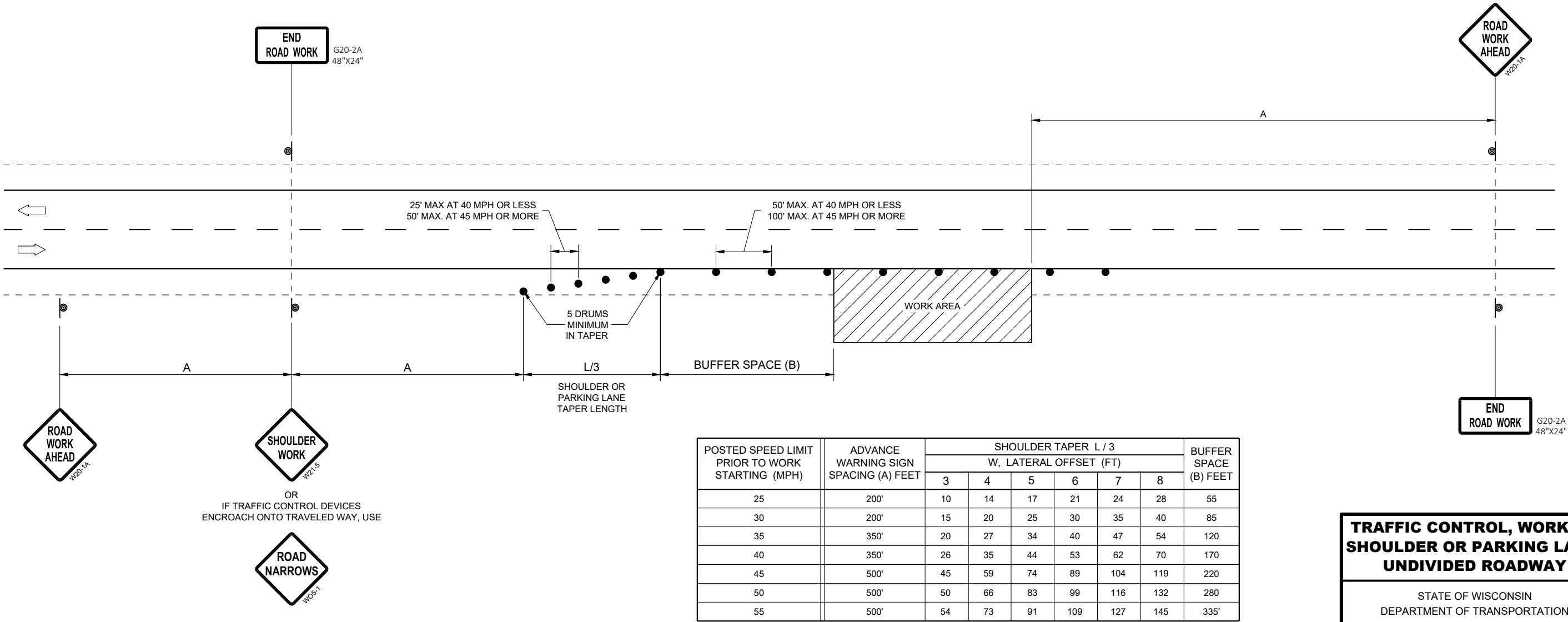
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

W20-1A AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.

6

6



SDD 15D28 - 04

SDD 15D28 - 04

TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2020
DATE
/S/ Andrew Heidtke
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- CONCRETE BARRIER TEMPORARY PRECAST

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIRABLE) DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR LANE SHIFT LEFT - REVERSE FOR SHIFTING RIGHT.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON ANY "COVERED" OR "DOWNED" SIGNS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINES IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

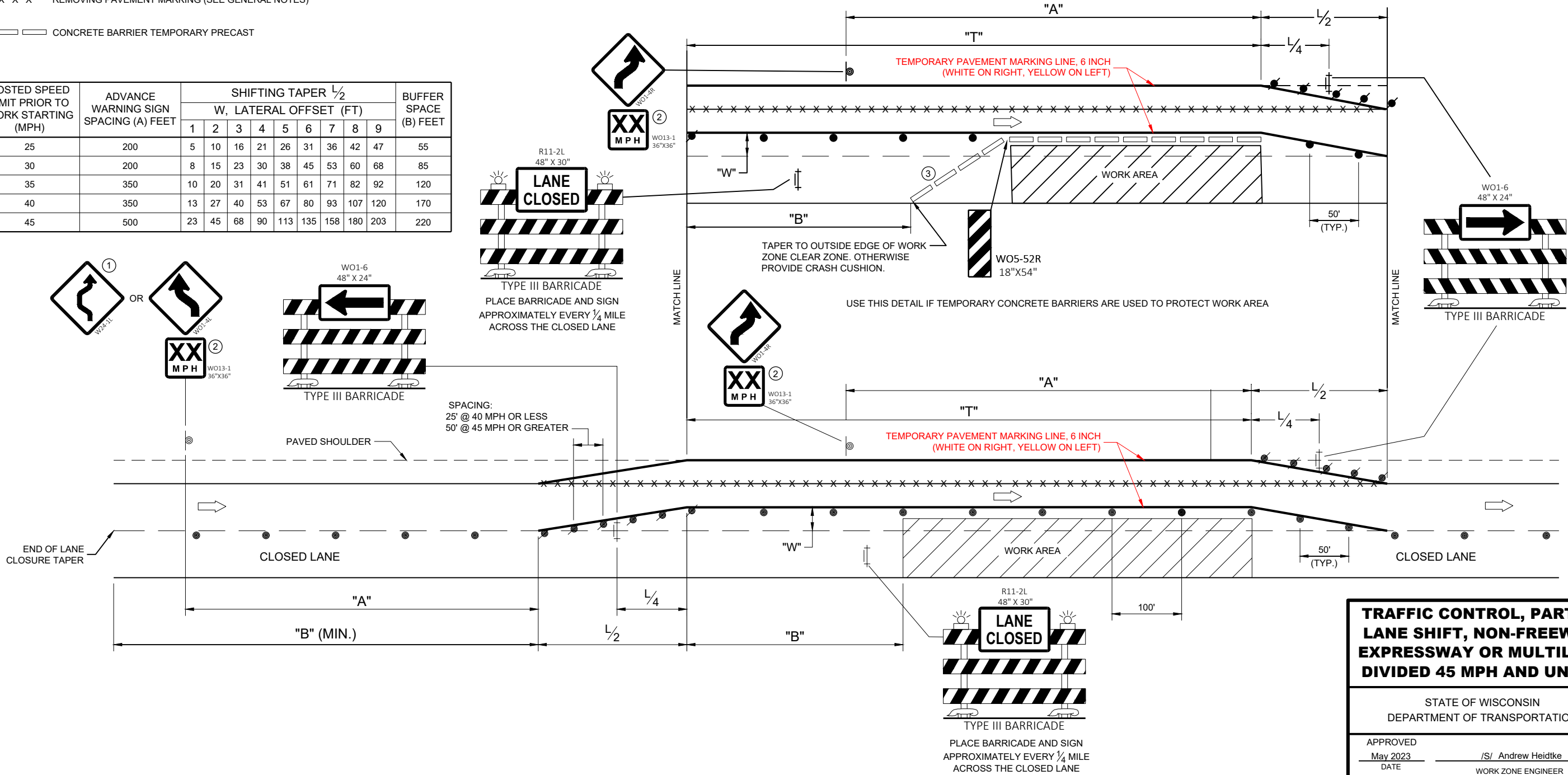
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE SHIFT OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE SHIFT MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

- 1 USE ONLY WHEN T<600', OMIT WO1-4R.
- 2 IF NEEDED, USE ONLY IF DESIGN SPEED IS 10 MPH BELOW POSTED SPEED.
- 3 BARRIER FLARE RATE: 6:1 @ 40 MPH OR LESS
8:1 @ 45 MPH OR GREATER

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHIFTING TAPER $\frac{L}{2}$ W, LATERAL OFFSET (FT)									BUFFER SPACE (B) FEET
		1	2	3	4	5	6	7	8	9	
25	200	5	10	16	21	26	31	36	42	47	55
30	200	8	15	23	30	38	45	53	60	68	85
35	350	10	20	31	41	51	61	71	82	92	120
40	350	13	27	40	53	67	80	93	107	120	170
45	500	23	45	68	90	113	135	158	180	203	220

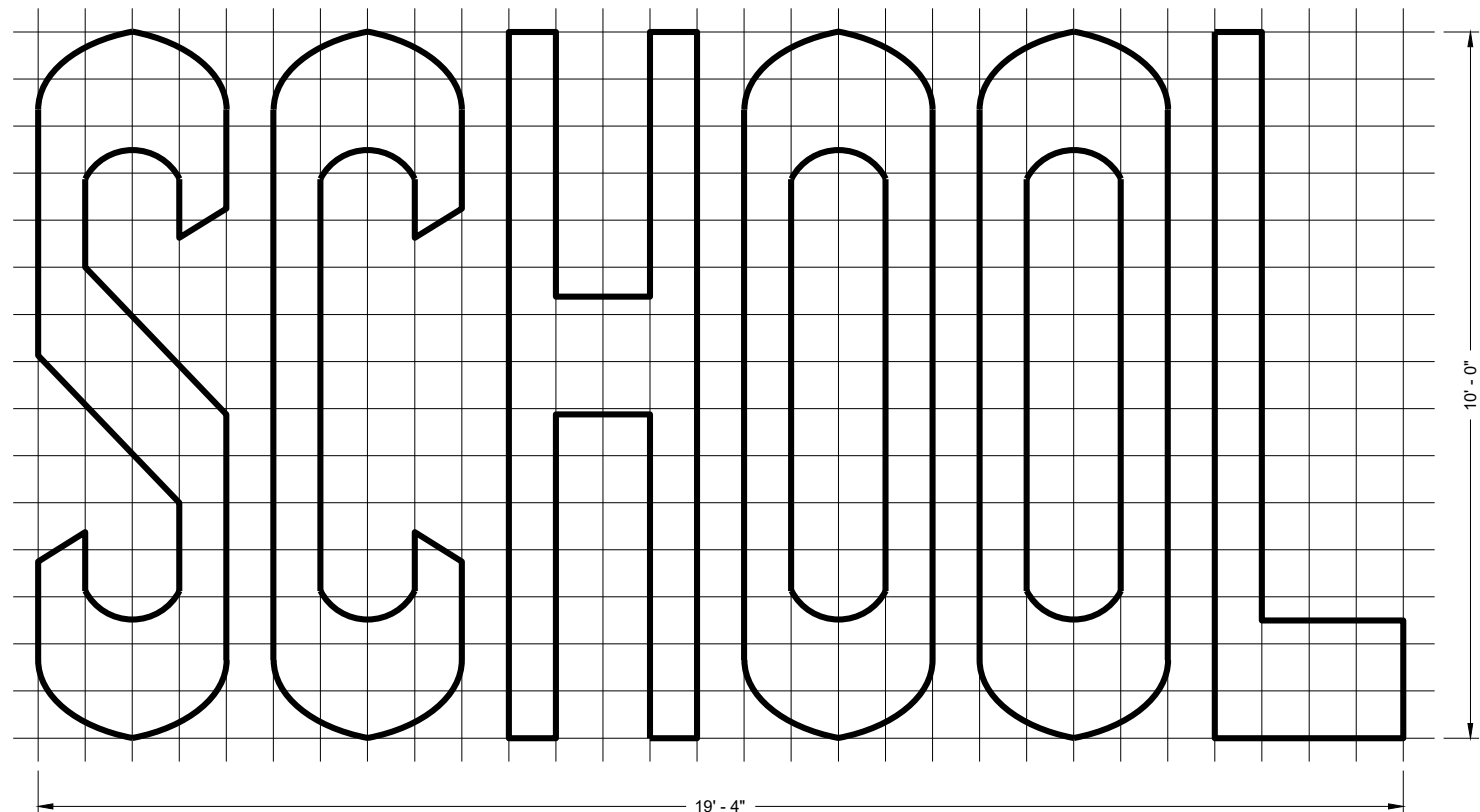
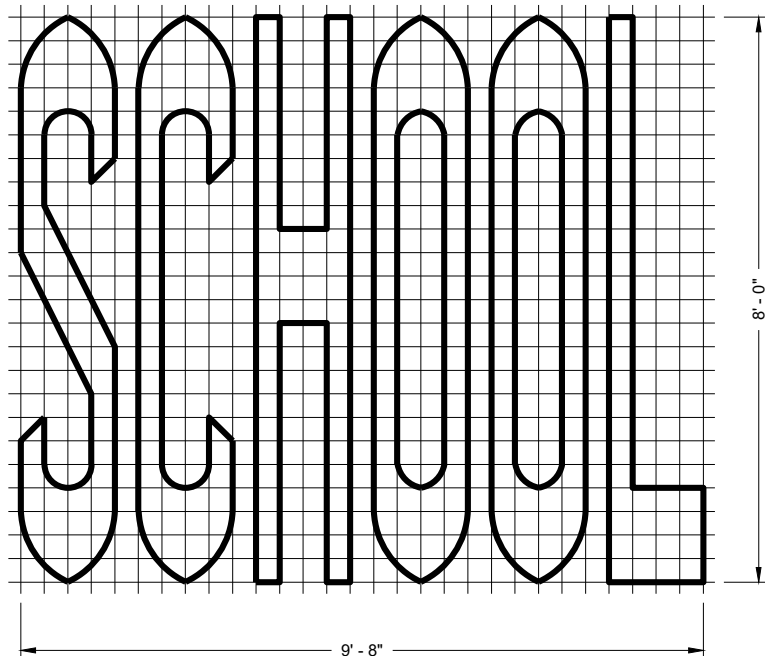
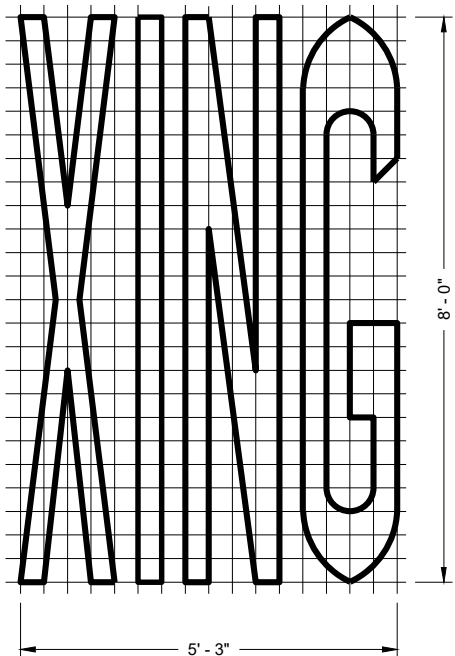
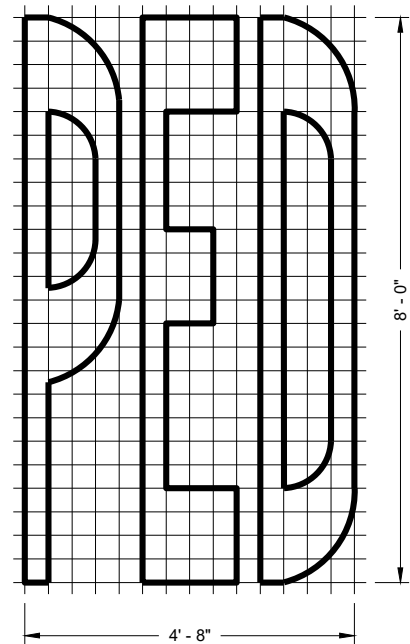
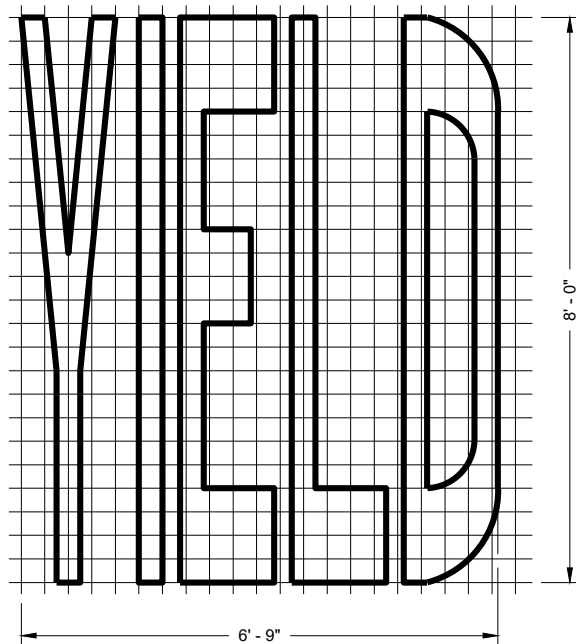
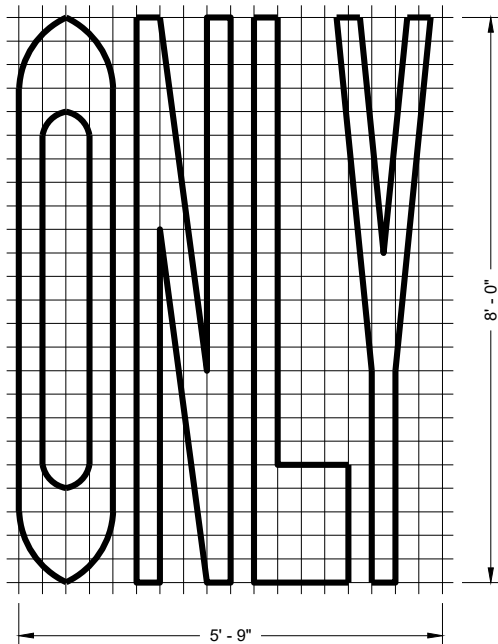
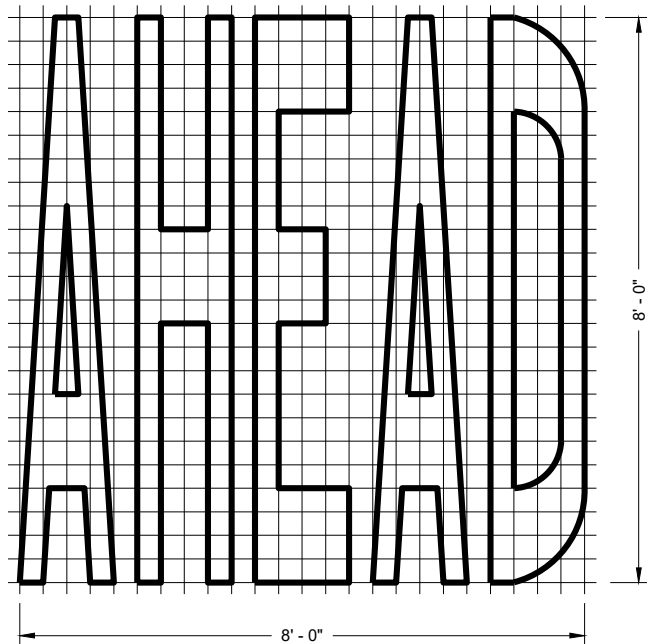
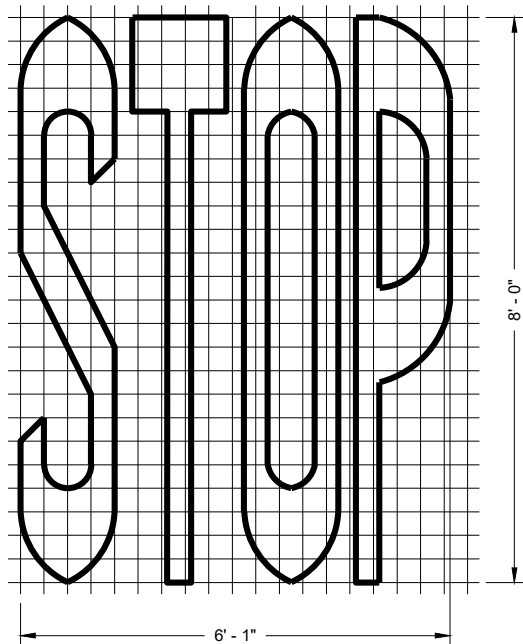


TRAFFIC CONTROL, PARTIAL
LANE SHIFT, NON-FREEWAY/
EXPRESSWAY OR MULTILANE
DIVIDED 45 MPH AND UNDER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA



SINGLE LANE

TWO - LANE

GENERAL NOTES

DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

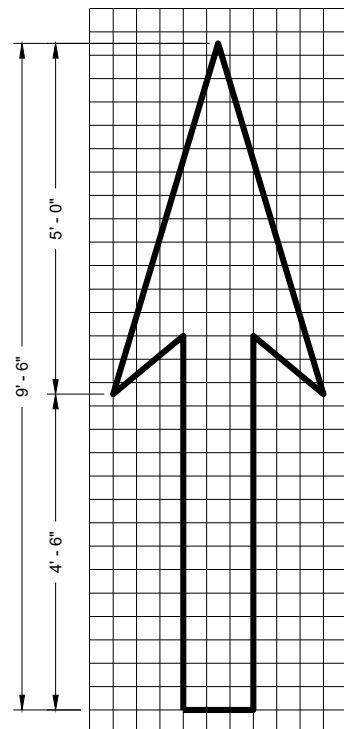
APPROVED
November 2019
DATE
/S/ Matthew Rauch
STATE SIGNING AND MARKING
ENGINEER
FHWA

SDD 15C07 - 15b

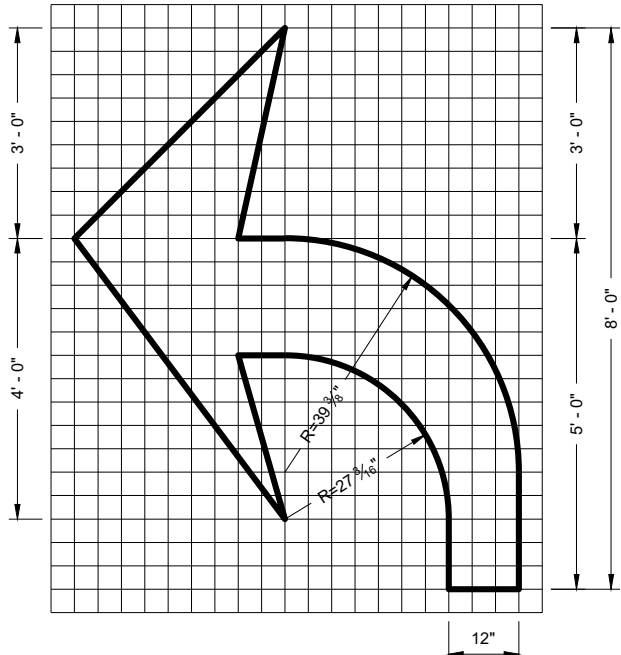
SDD 15C07 - 15b



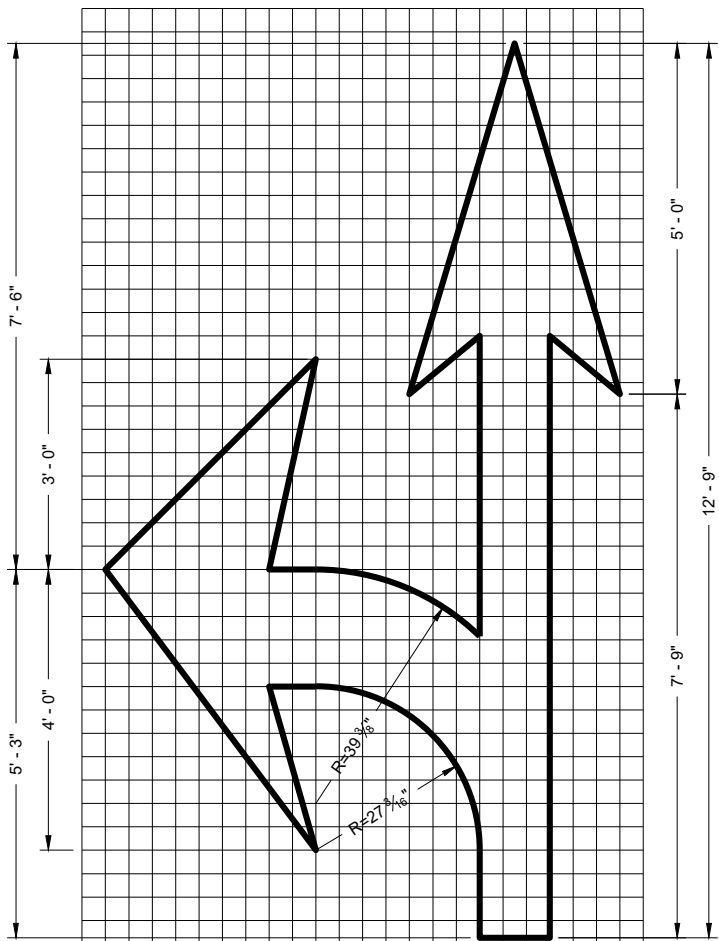
SDD 15C7-c Pavement Marking Arrows



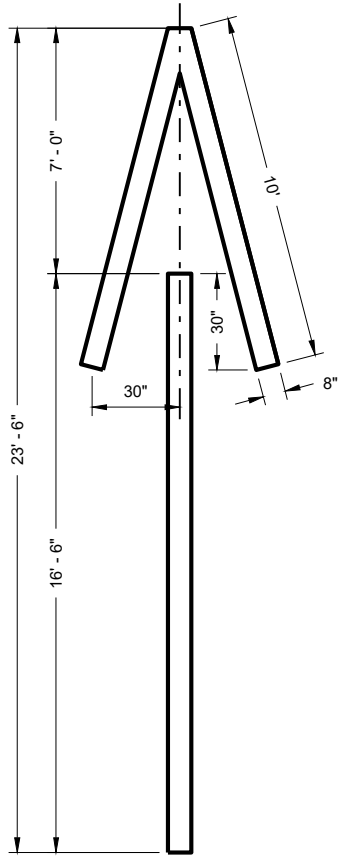
TYPE 1



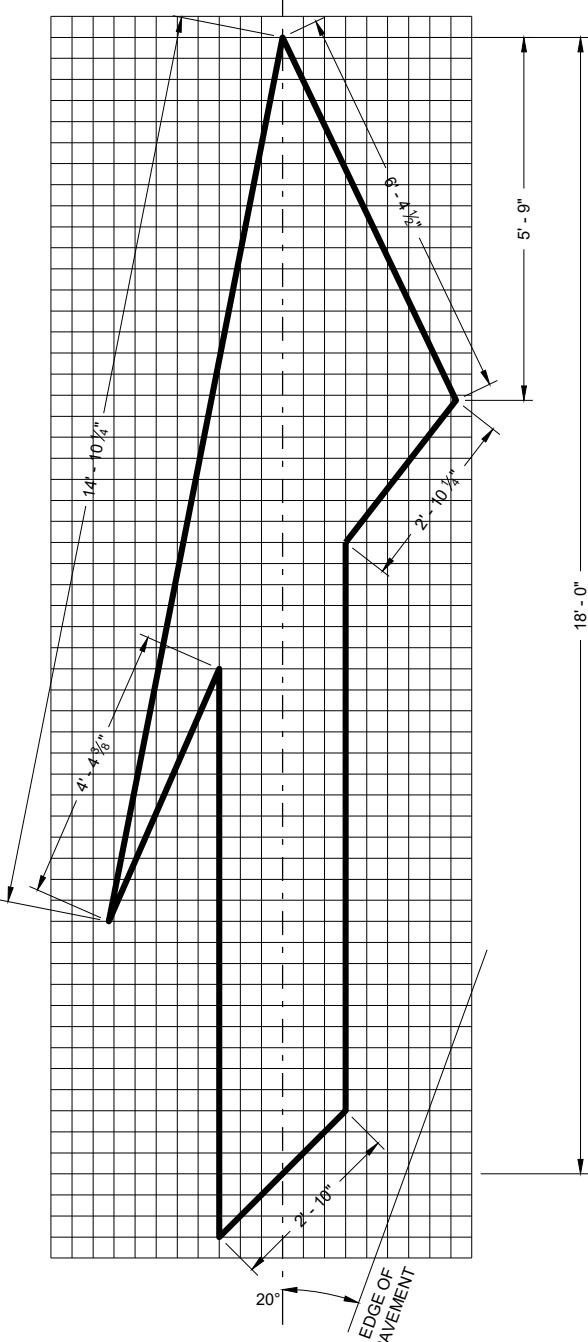
TYPE 2



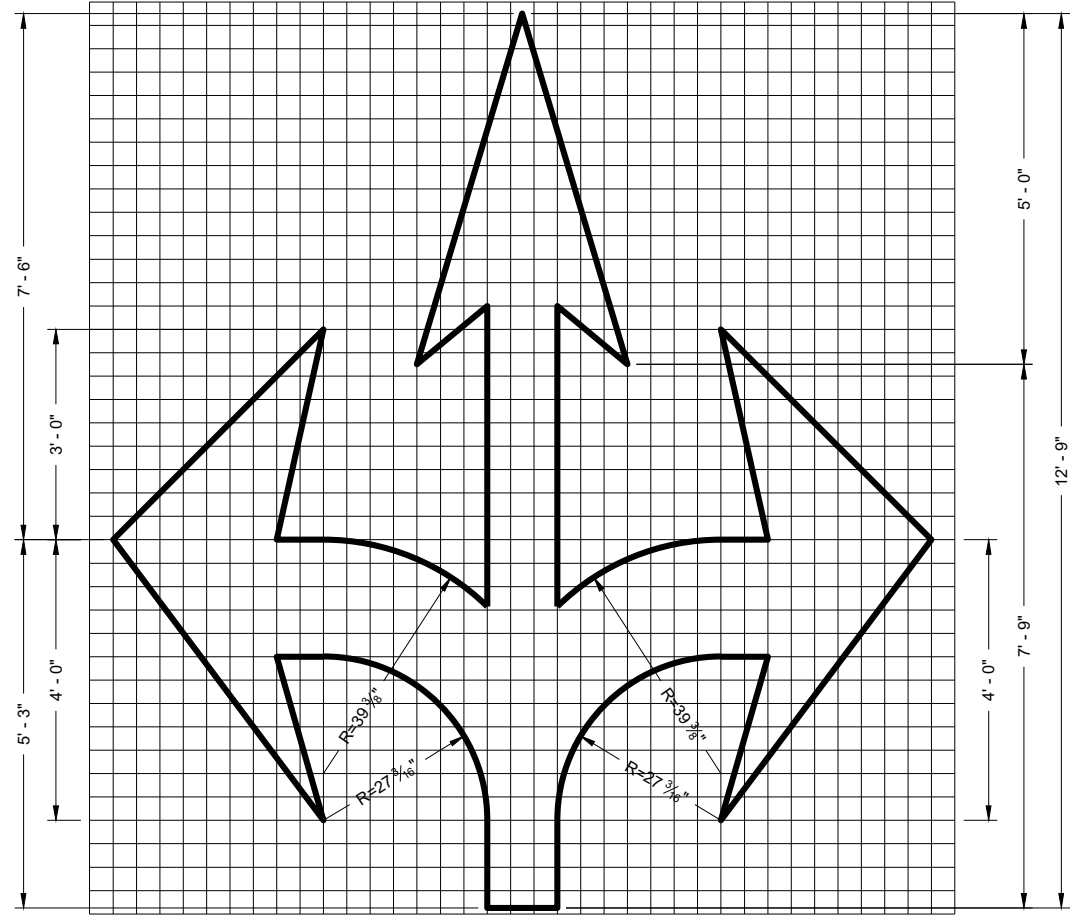
TYPE 3



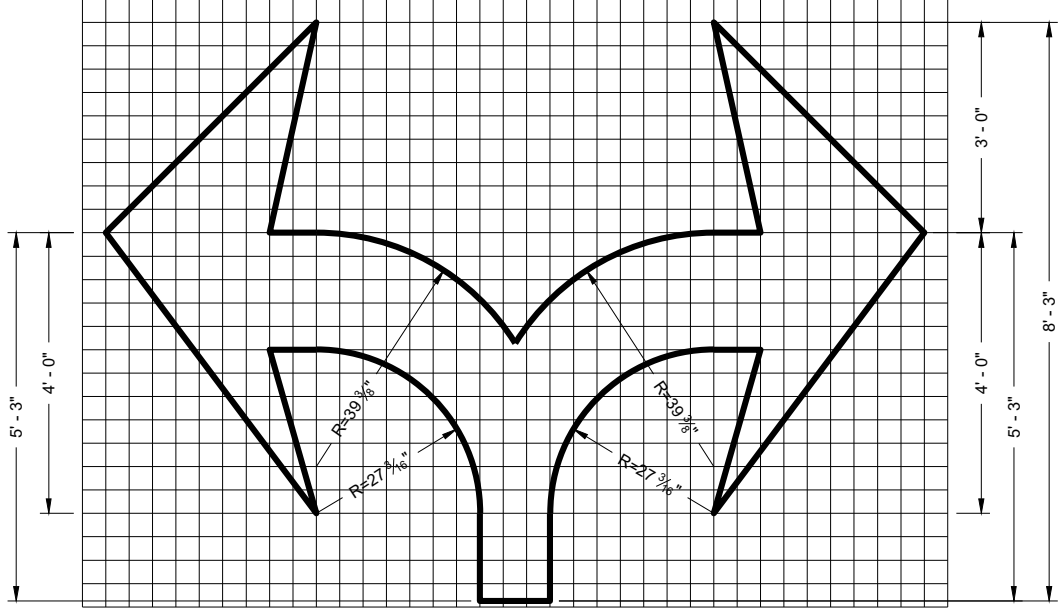
TYPE 4



TYPE 5 LANE DROP ARROW



TYPE 6



TYPE 7

GENERAL NOTES

DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

6

SDD 15C07 - 15c

6

SDD 15C07 - 15c

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

November 2019

DATE

FHWA

/S/ Matthew Rauch

STATE SIGNING AND MARKING

ENGINEER



SDD 15C08-a Permanent Longitudinal Pavement Markings

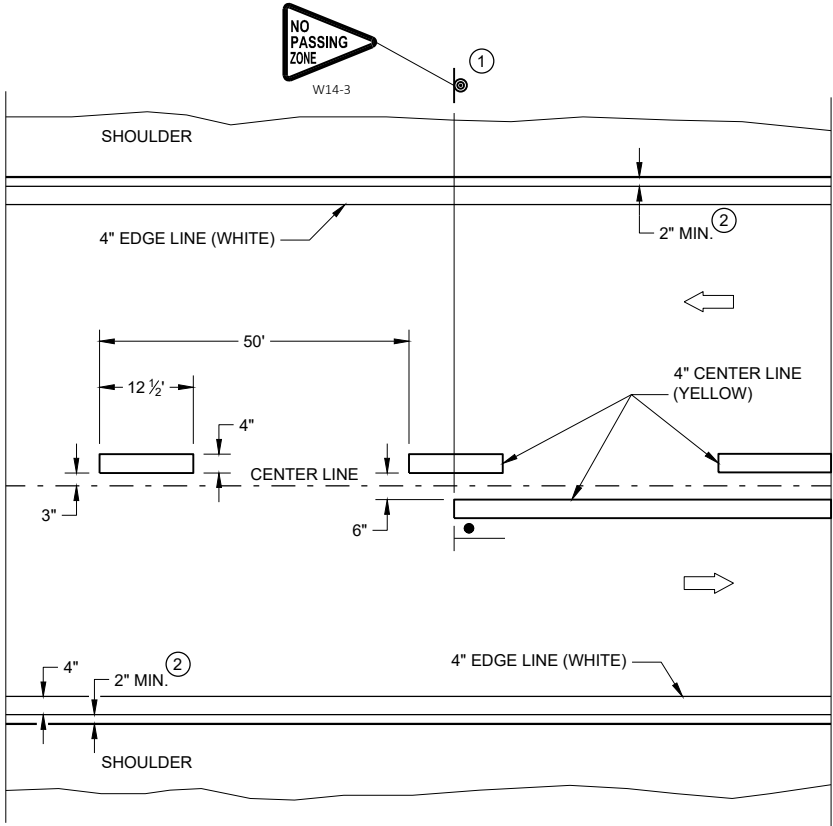
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

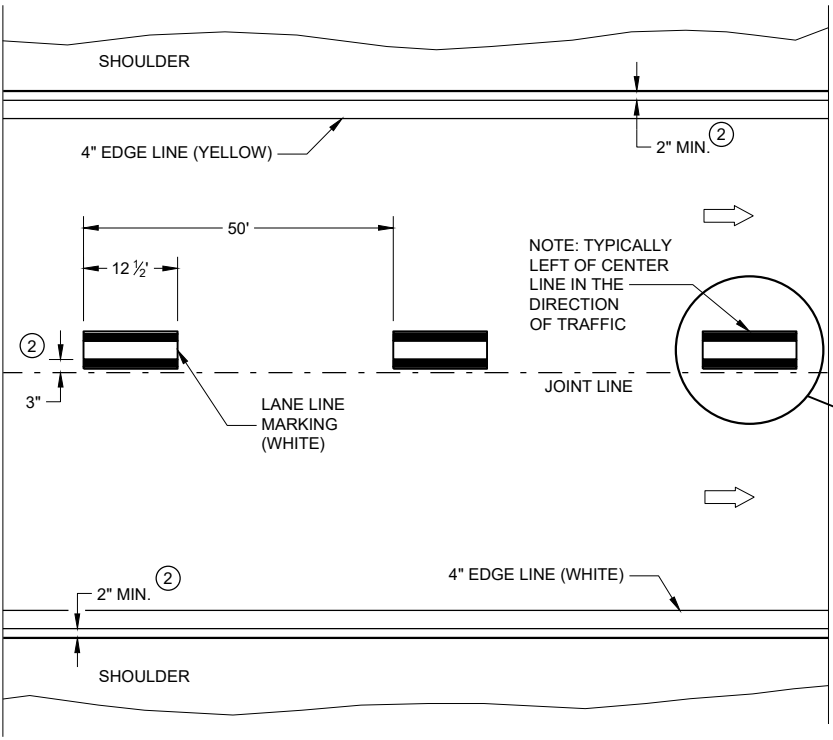
- ① LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING
- ② MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

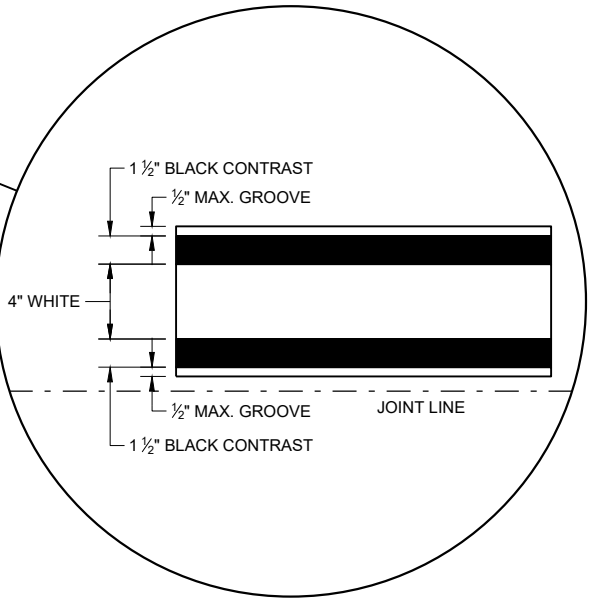
- "T" MARKING
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC



TWO WAY TRAFFIC



ONE WAY TRAFFIC



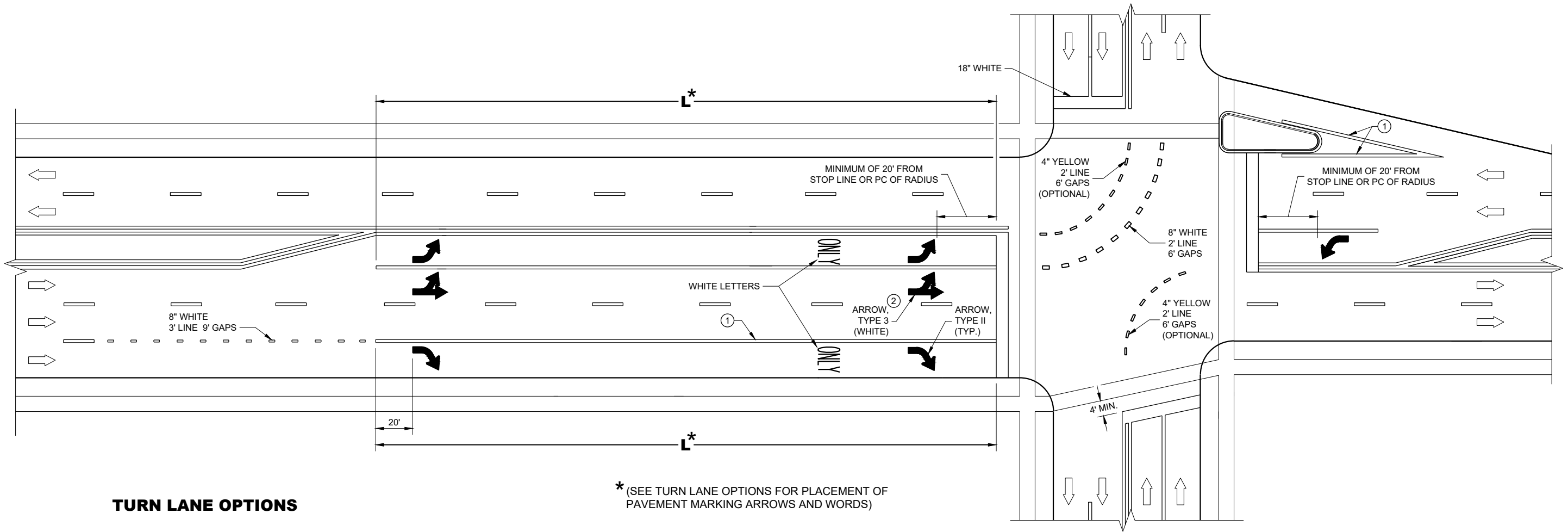
PERMANENT PAVEMENT MARKING

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

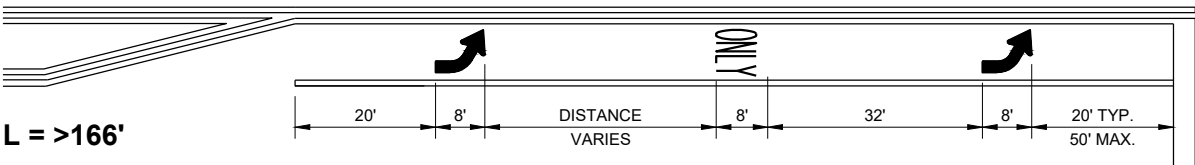
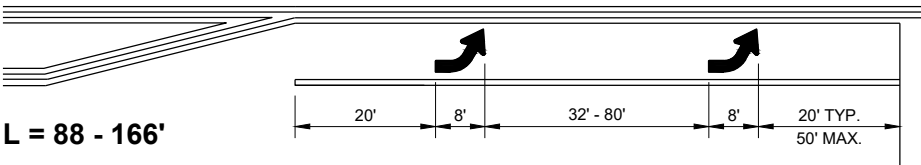
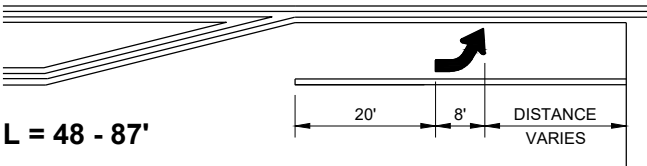
APPROVED
08/2022
DATE
/S/ Jeannie Silver
STATEWIDE SIGNING AND MARKING
ENGINEER

FHWA



TURN LANE OPTIONS

LENGTH OF TURN BAY (**L**) OF 0 - 47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



*(SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

GENERAL NOTES

- ① 8" WHITE
- ② QUANTITY AND LOCATION OF TYPE 3 ARROWS ARE THE SAME AS THE TYPE II ARROWS IN THE ADJACENT TURN LANE. FOR TURN LANES WITH A PHYSICAL SEPARATION IN THE SAME DIRECTION OF TRAVEL, THE ARROWS AND "ONLY" MARKING MAY BE ELIMINATED.

→ DIRECTION OF TRAFFIC

L = LENGTH OF TURN BAY

**PAVEMENT MARKING
(TURN LANES)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

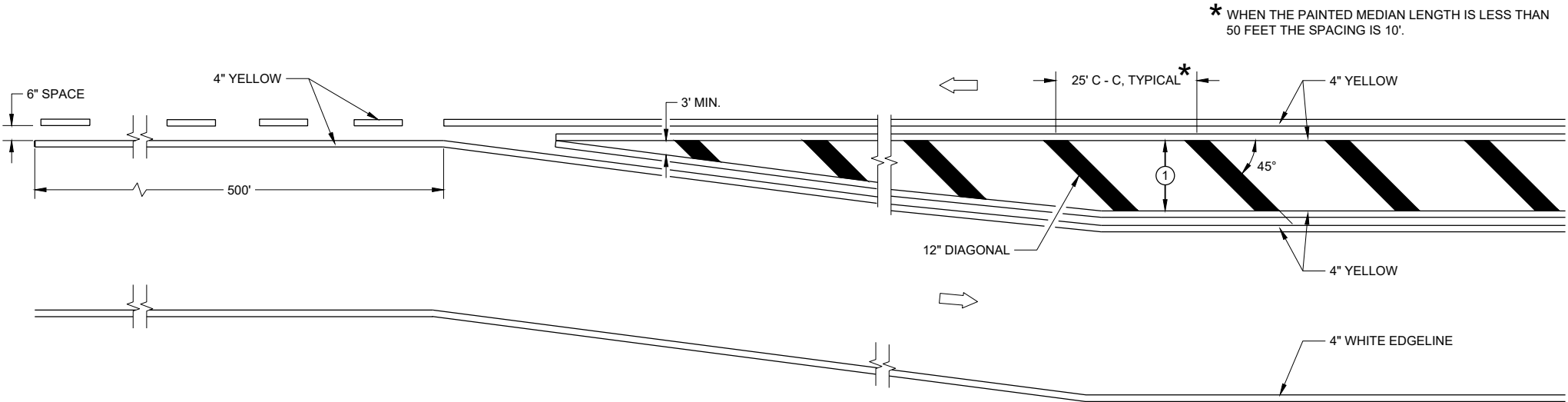


SDD 15C18-a Pavement Markings, Median Islands

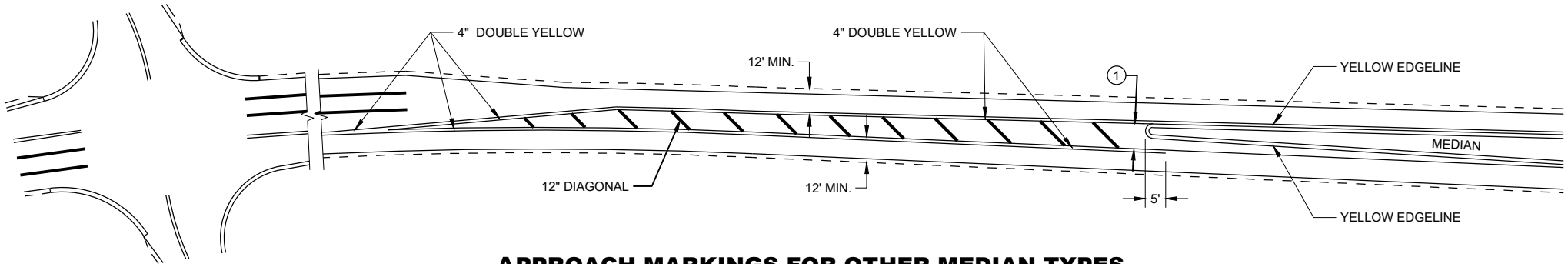
GENERAL NOTES

- ① DIAGONALS ARE OPTIONAL WHEN PAINTED ISLAND IS LESS THAN 6 FEET AT THE WIDEST POINT. OMIT DIAGONALS IF WIDTH IS LESS THAN 4 FEET.

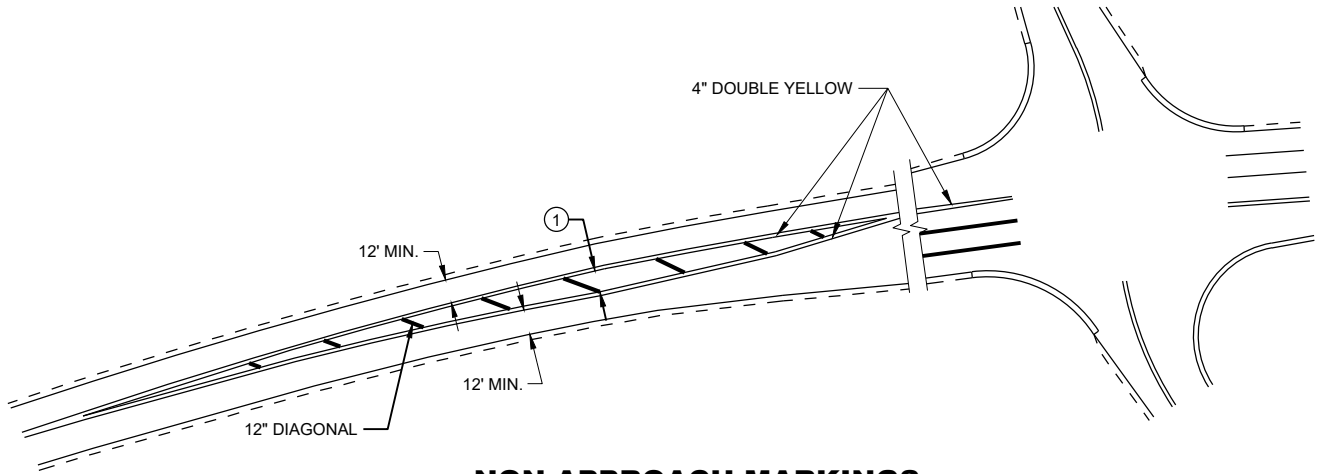
➡ DIRECTION OF TRAVEL



MEDIAN ISLAND DETAIL



APPROACH MARKINGS FOR OTHER MEDIAN TYPES



NON-APPROACH MARKINGS

MEDIAN ISLAND PAVEMENT MARKINGS

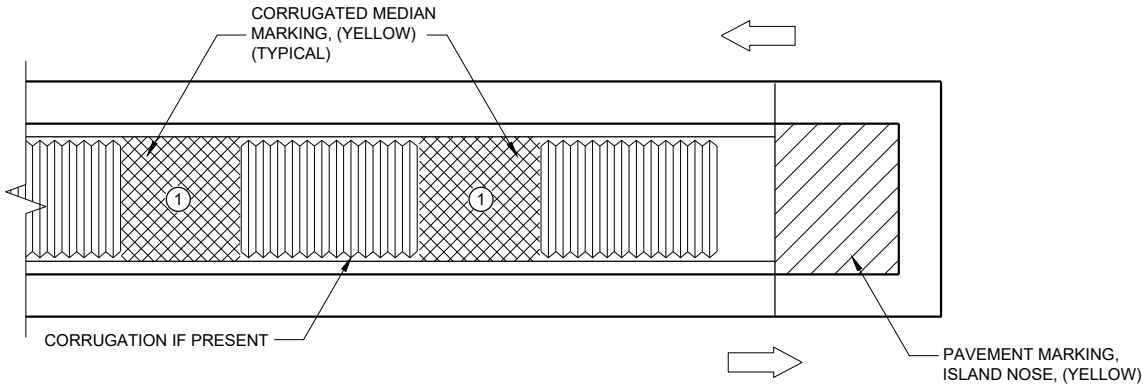
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE
/S/ Jeannie Silver
STATE SIGNING AND MARKING
ENGINEER

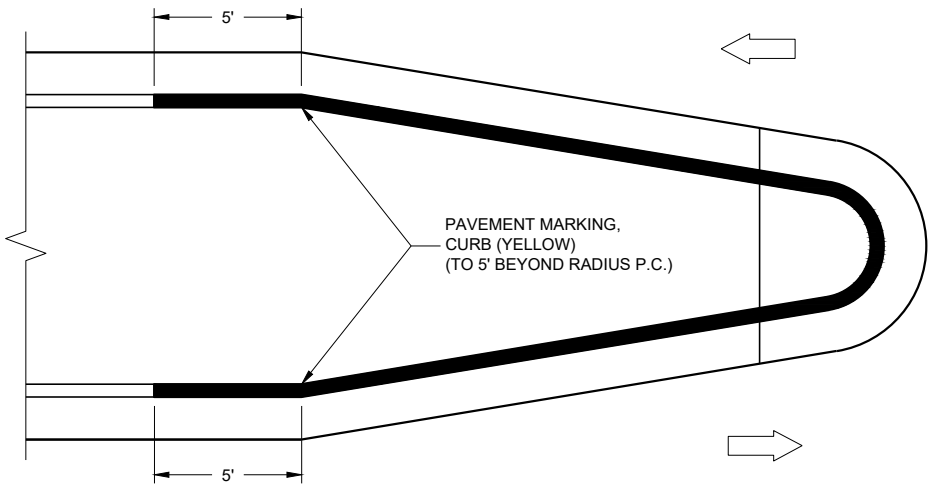
FHWA



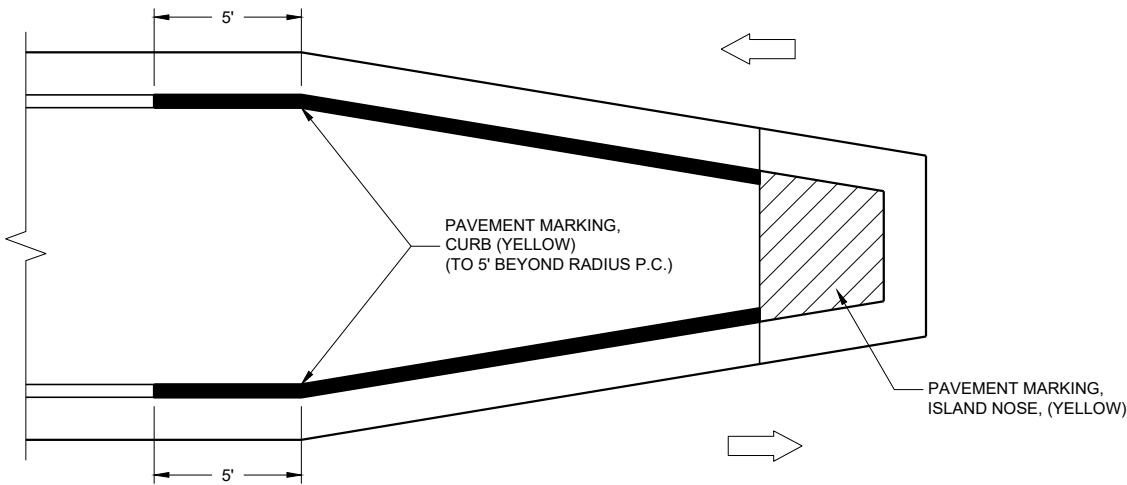
SDD 15C18-b Pavement Markings, Median Island Nose



MEDIAN ISLAND WITH SQUARE BLUNT NOSE



MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

GENERAL NOTES

WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION, YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.

- ① APPLY PAVEMENT MARKING TO THE FLAT PORTION OF CORRUGATED MEDIAN.

- ISLAND NOSE MARKING
- CURB MARKING
- CORRUGATED MEDIAN MARKING
- DIRECTION OF TRAVEL

PAVEMENT MARKINGS, MEDIAN ISLAND NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE
/S/ Jeannie Silver
STATE SIGNING AND MARKING
ENGINEER

FHWA

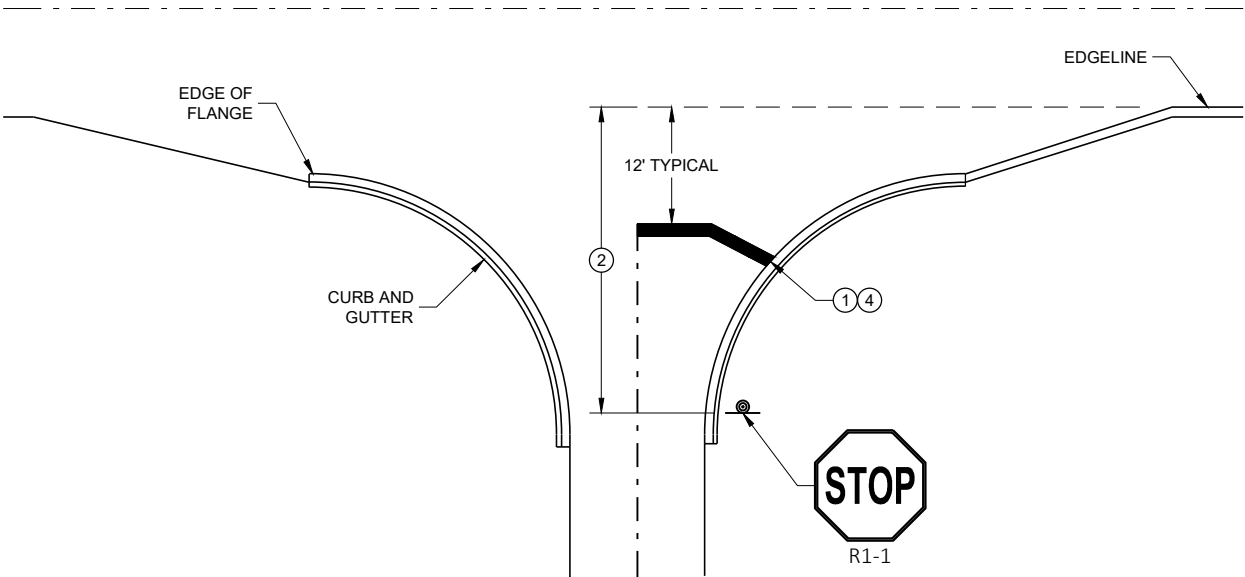


SDD 15C33 Stop Line and Crosswalk Pavement Marking

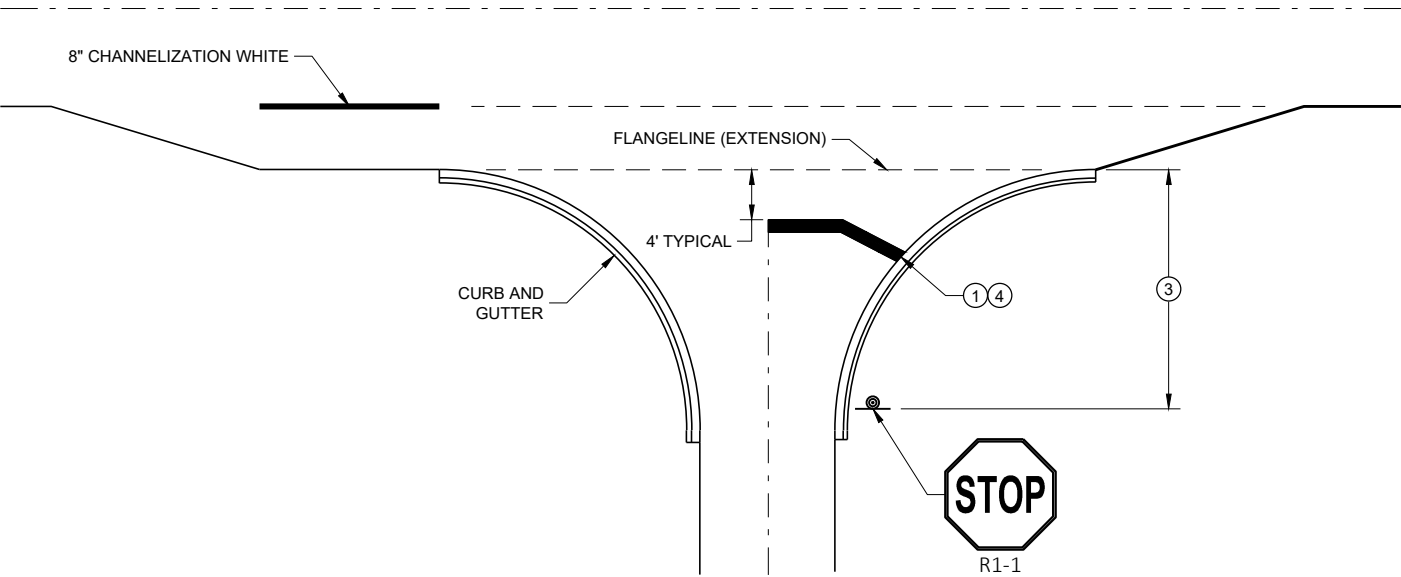
GENERAL NOTES

STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGELINE LOCATION.

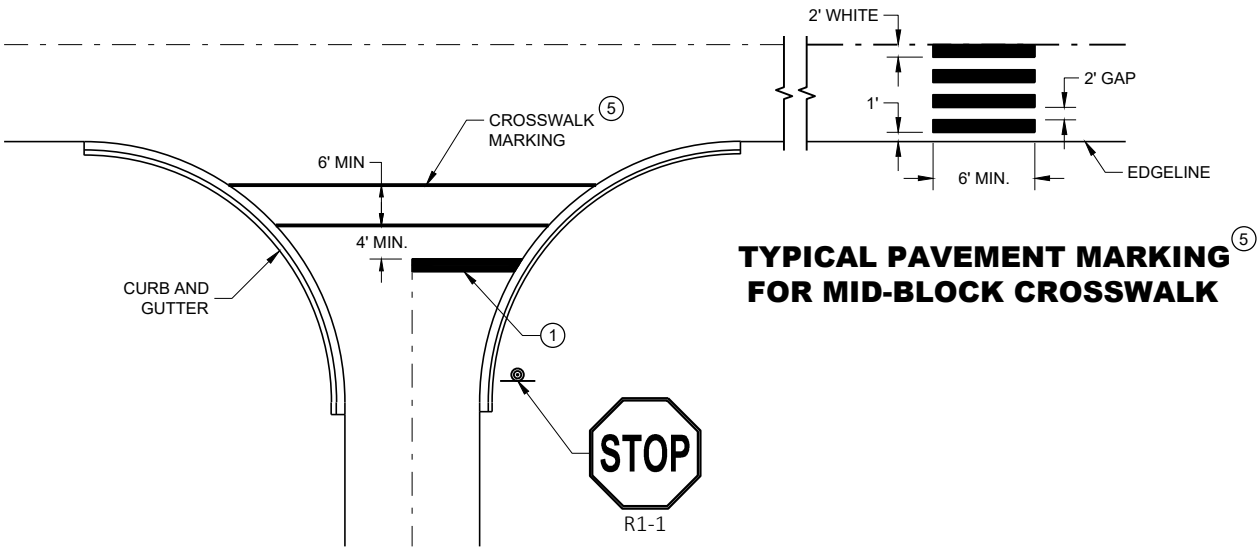
- ① 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
- ② NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
- ③ NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGE LINE EXTENSION.
- ④ MOVE CLOSER TO THE EDGE OF TRAVEL LINE AS NEEDED FOR VISIBILITY AND SIGHT LINES (NO CLOSER THAN 4 FEET).
- ⑤ LADDER BAR CROSSWALKS SHOULD ONLY BE USED FOR MID BLOCK CROSSINGS. USE 2 - 6" TRANSVERSE LINES INSTEAD.



TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER

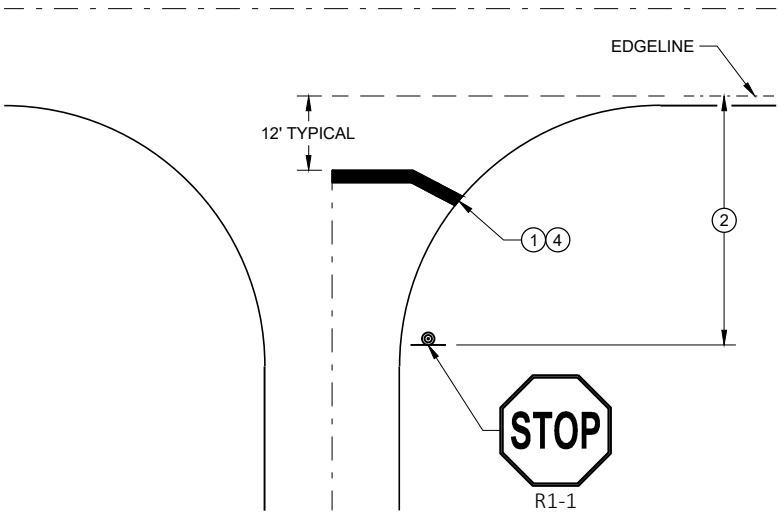


TYPICAL STOP LINE PAVEMENT MARKING FOR SIDE ROADS WITH RIGHT TURN LANE



TYPICAL PAVEMENT MARKING FOR MID-BLOCK CROSSWALK

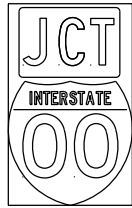
TYPICAL STOP LINE PAVEMENT MARKING FOR SIDE ROADS WITH CROSSWALK MARKING



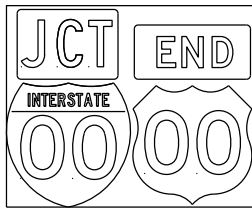
TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

STOP LINE AND CROSSWALK PAVEMENT MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2019 DATE	/S/ Matthew Rauch STATE SIGNING AND MARKING ENGINEER
FHWA	

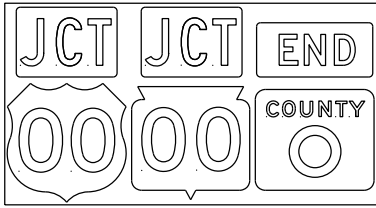
TYPICAL ASSEMBLIES



J1-1



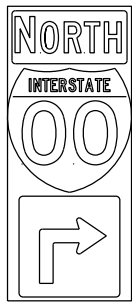
J1-2



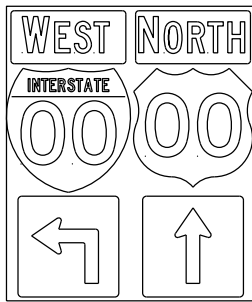
J1-3



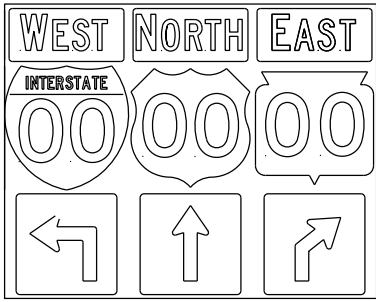
JR1-1



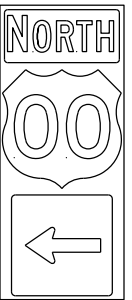
J2-1



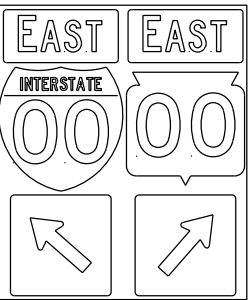
J2-2



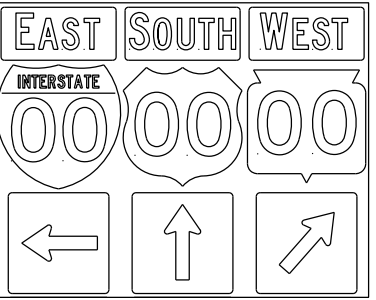
J2-3



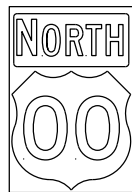
J3-1



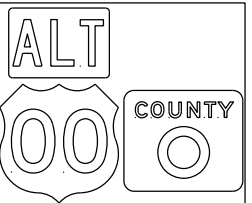
J3-2



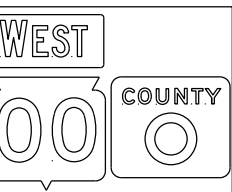
J3-3



J4-1



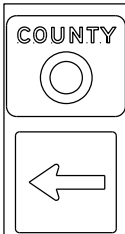
J4-2



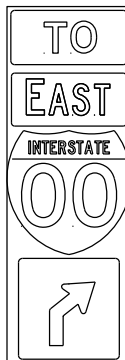
J4-2



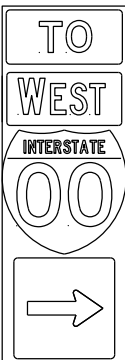
J12-1



J13-1



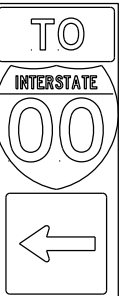
J32-1



J33-1



J22-1



J23-1



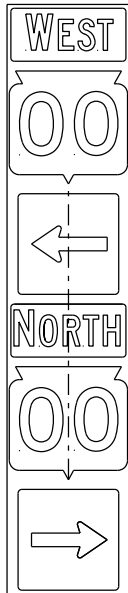
JR13-1



JR23-1

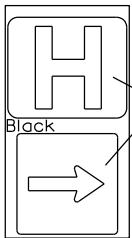


JR99-1



JV

(Typical Vertical J-Assembly
See Note 10 and 11)

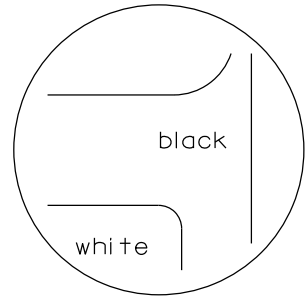
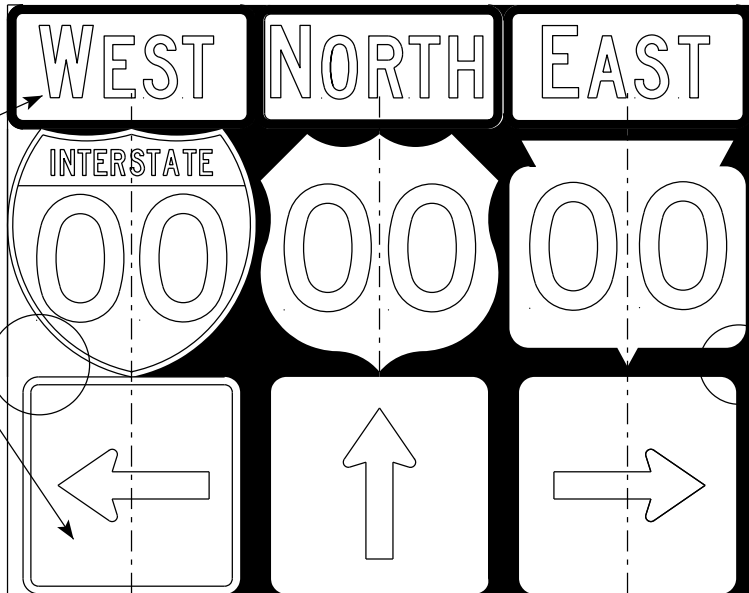
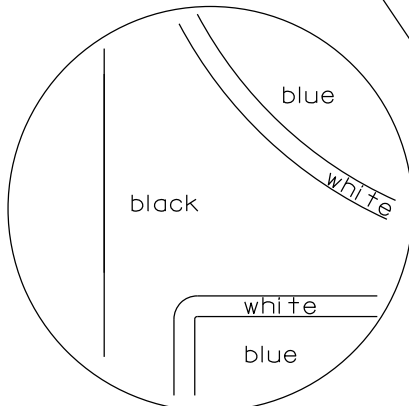


JH-1

Blue Background

Black

blue background
with interstate



black background

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

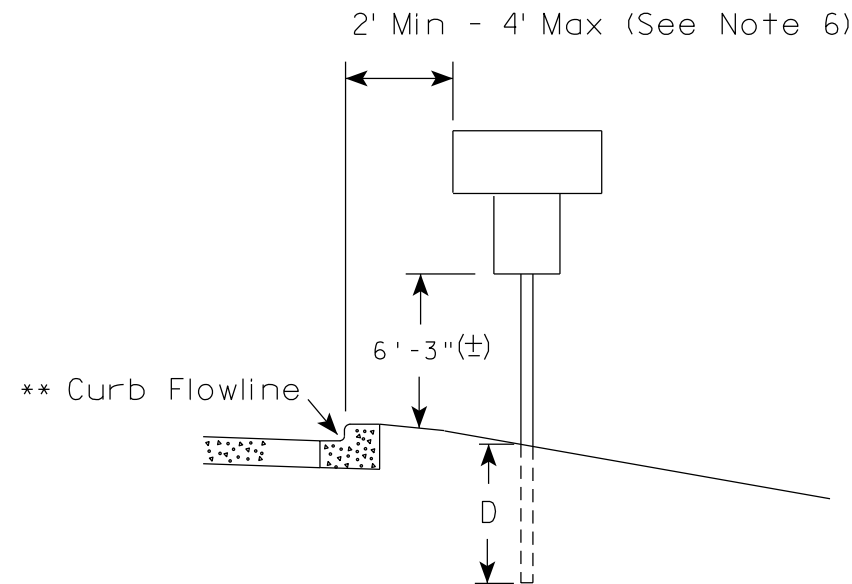
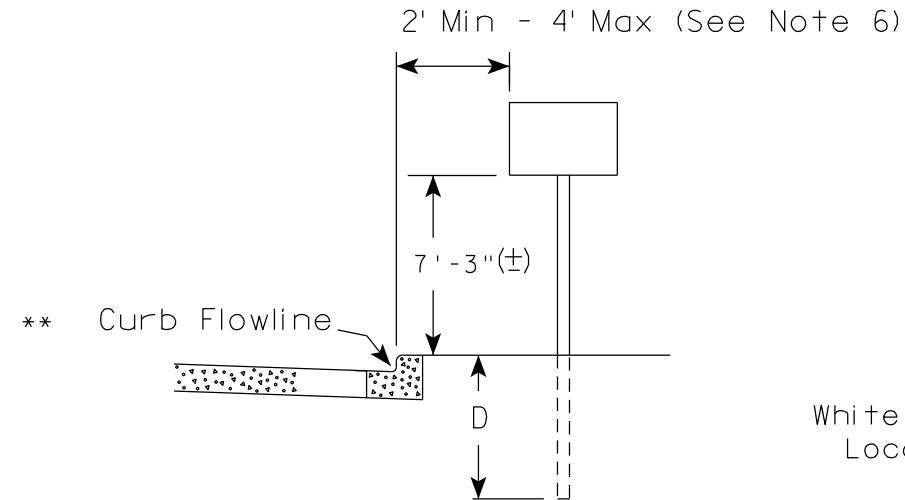
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/18/21 PLATE NO. A2-1S.9

NOTES

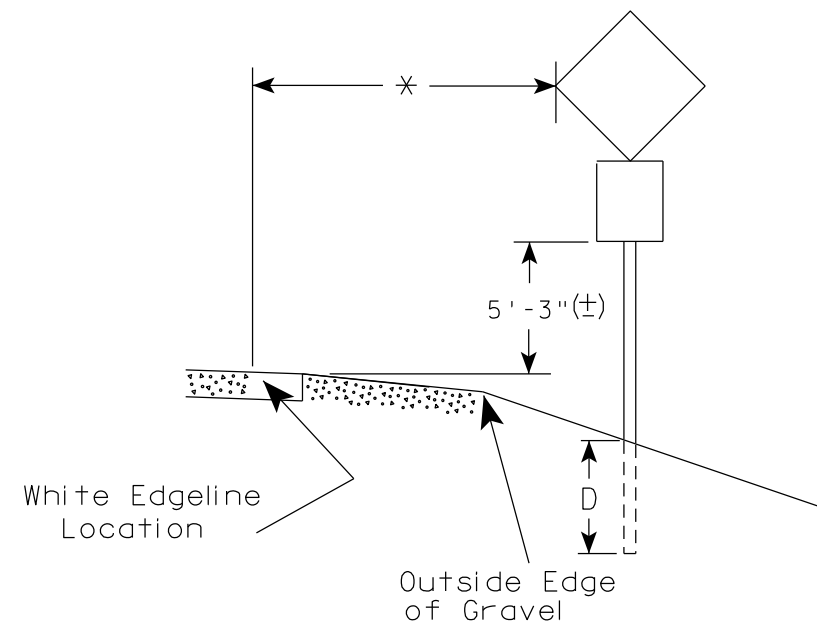
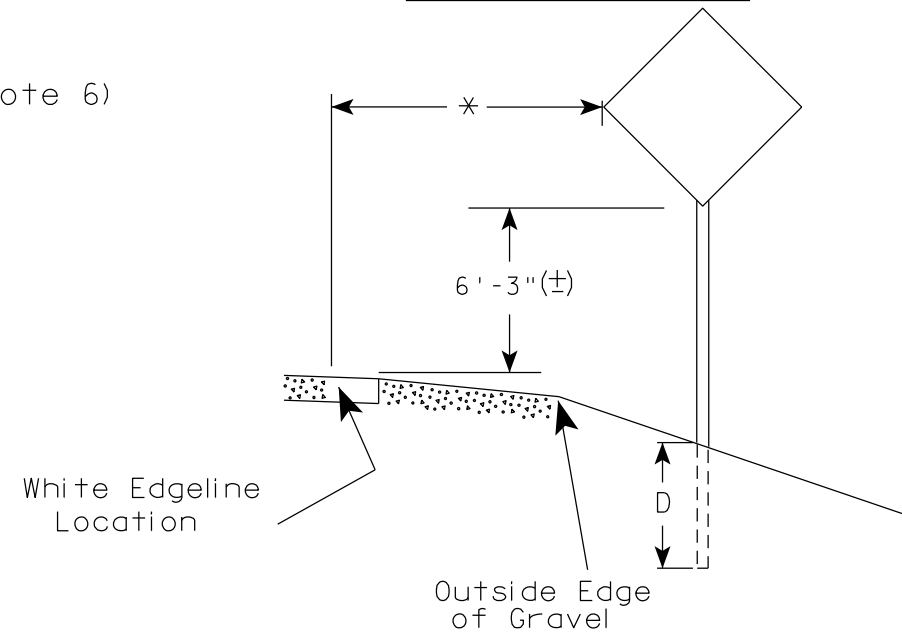
- Signs are Type II - Type H Reflective
- Color:
Background - Black Non-reflective
Message - see Note 5
- Message Series - See Note 5
- Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
- The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
- Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 Interstate marker shall be blue.
- Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
- Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
- Route assemblies that have 36 inch shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
- All Vertical J Assemblies are given a Sign Code of JV
- For JV Assemblies that have a mixture of Interstate and non Interstate shields, arrows and cardinals shall be white on blue.

URBAN AREA



** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

RURAL AREA (See Note 2)



* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

GENERAL NOTES

- Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
- If signs are mounted on or behind barrier wall, see A4-10 sign plate.
The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).
- For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
- Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
- Offset distance shall be consistent with existing signs or consistent throughout length of project.
- The (±) tolerance for mounting height is 3 inches.
- Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/13/2020 PLATE NO. A4-3.22

PROJECT NO:

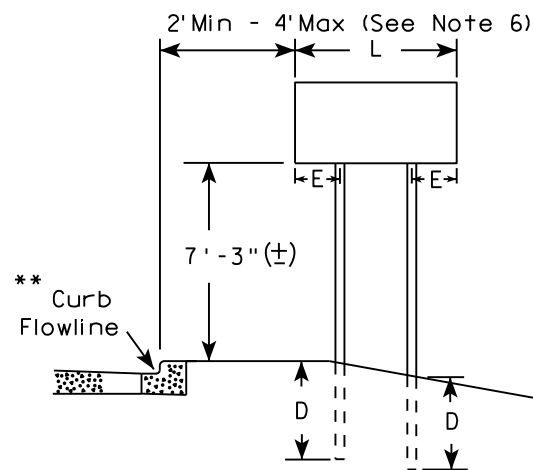
HWY:

COUNTY:

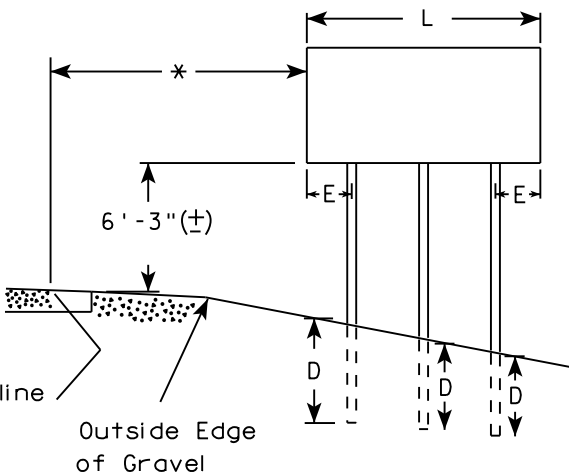
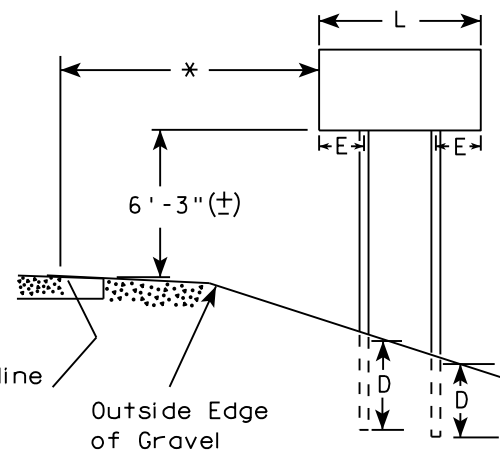
SHEET NO: 88

E

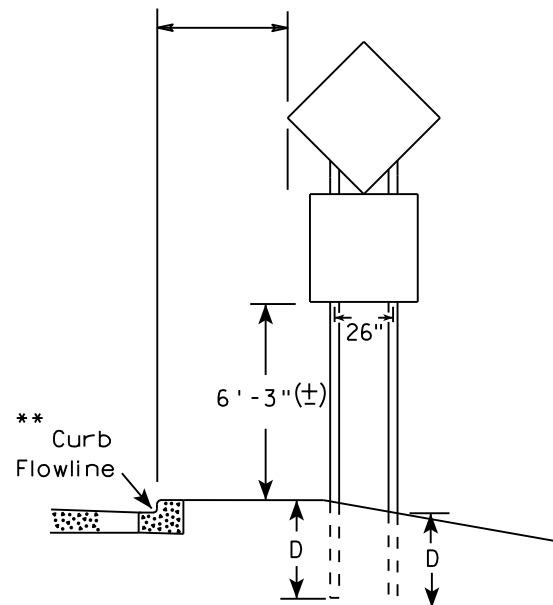
URBAN AREA



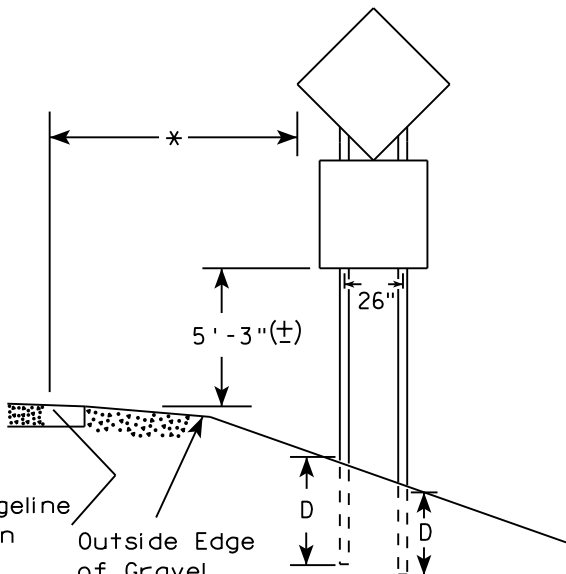
RURAL AREA (See Note 3)



2' Min - 4' Max (See Note 6)



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 108"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION
OF TYPE II SIGNS
ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
for State Traffic Engineer

DATE 8/21/17

PLATE NO. A4-4.15

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 89

E

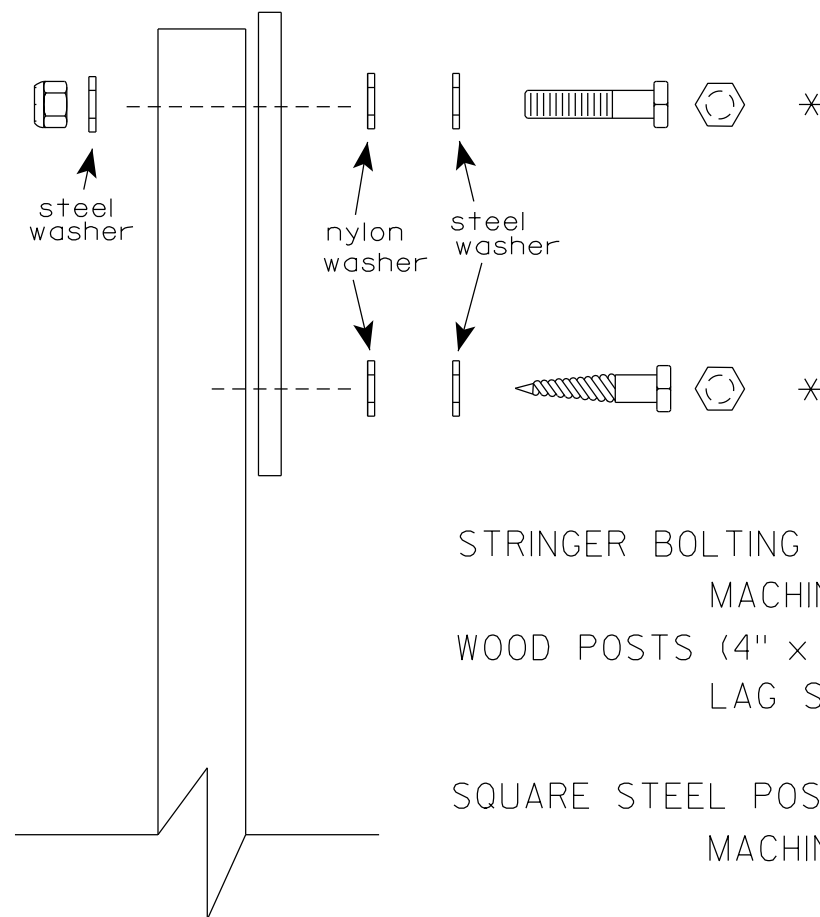
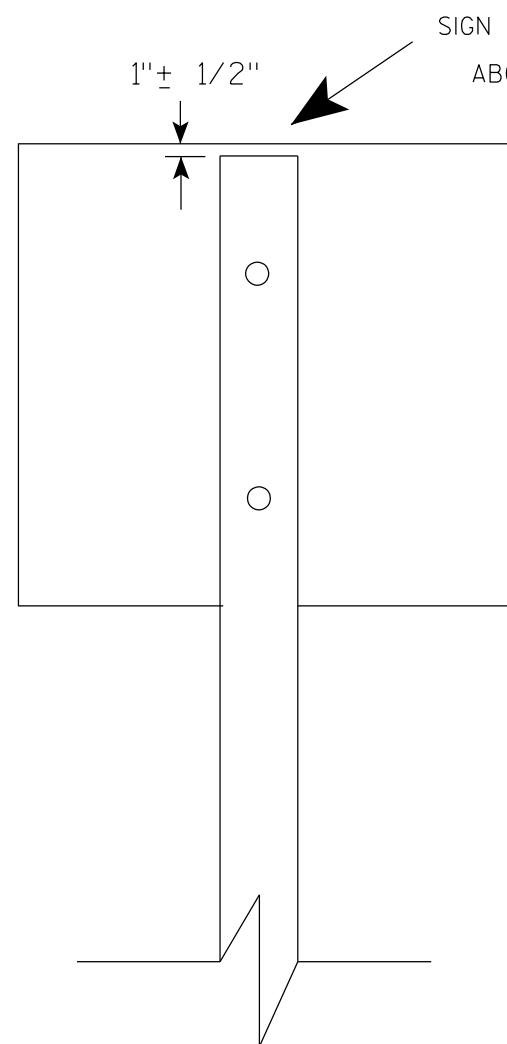
GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. J-Assemblies are considered to be one sign for mounting height.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

*** See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.



Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

- a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
- b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

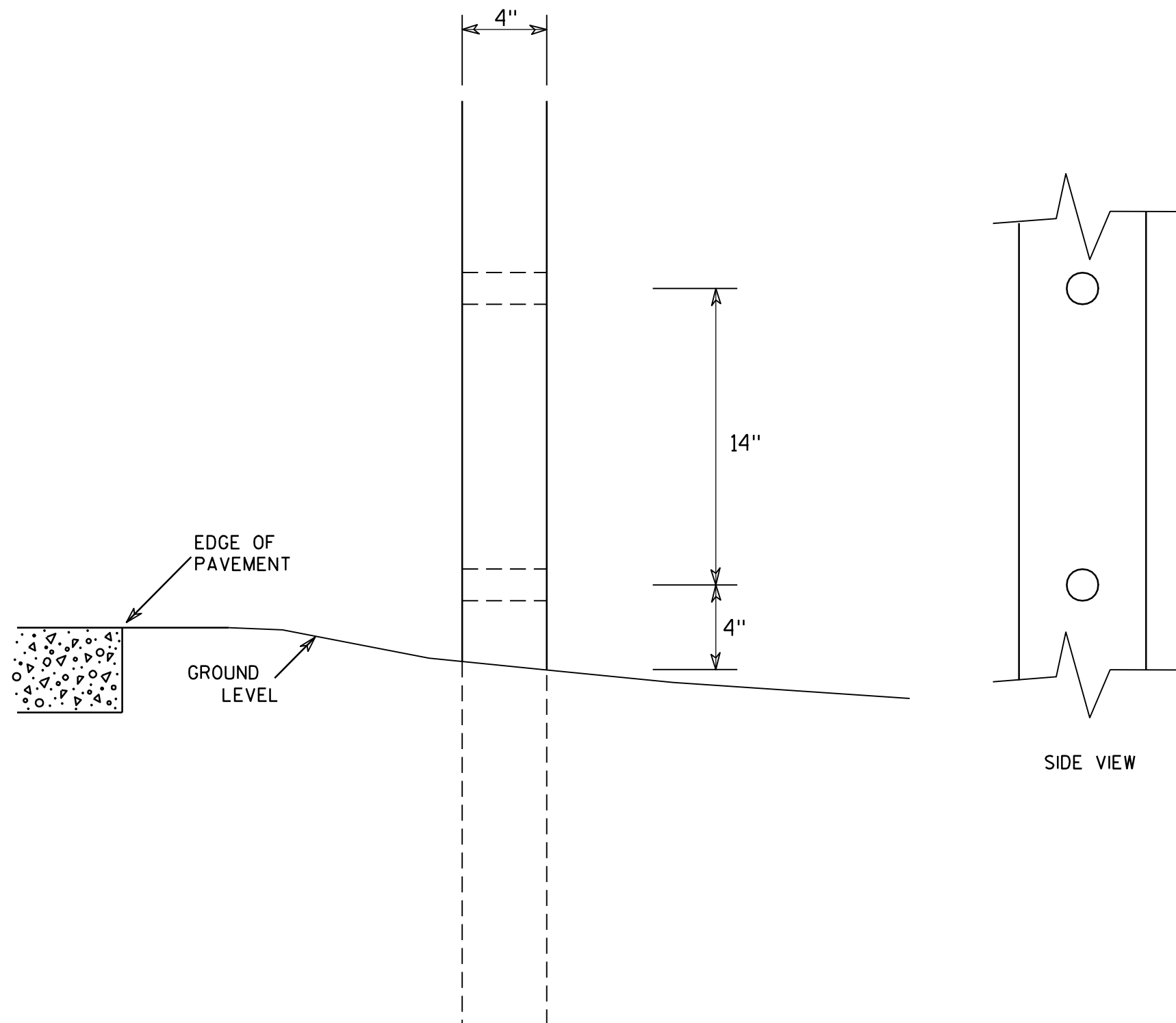
Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

- STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
- MACHINE BOLTS - $\frac{5}{16}$ " X 1-3/4" Length w/ lock nuts
- WOOD POSTS (4" x 6")
- LAG SCREWS - $\frac{3}{8}$ " X 3" (NO STRINGERS ON BACK OF SIGN)
 $\frac{3}{8}$ " X 4" (STRINGERS ON BACK OF SIGN)
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - $\frac{3}{8}$ " X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
 $\frac{3}{8}$ " X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
- RIVETS - $\frac{9}{32}$ " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH
- WASHERS (ALL POSTS) -
- 1-1/4" O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ " STEEL
 - 1-1/4" O.D. X $\frac{3}{8}$ " I.D. X .080 NYLON

* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

ATTACHMENT OF SIGNS TO POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 4/1/2020	PLATE NO. A4-8.9

7



GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

7

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

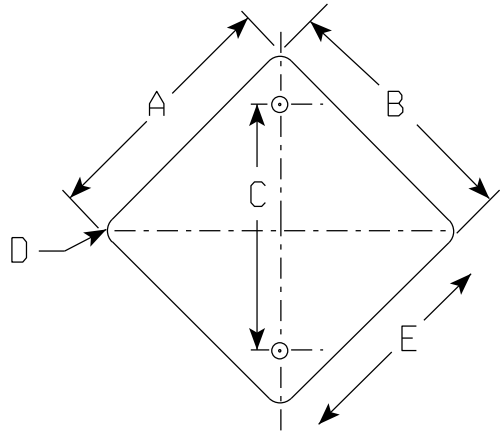
PROJECT NO:

HWY:

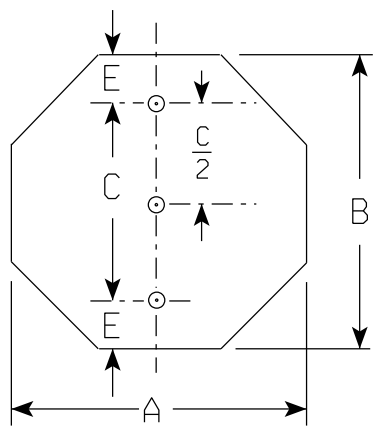
COUNTY:

SHEET NO: 91

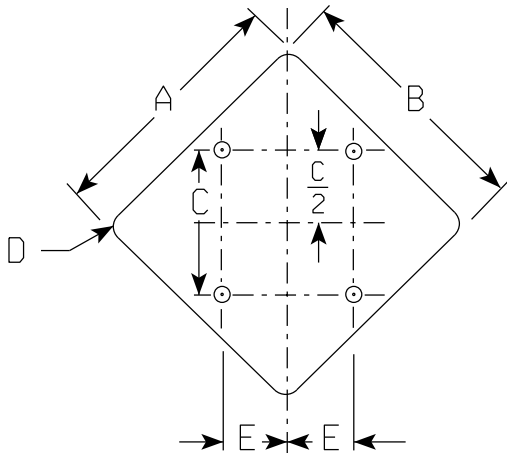
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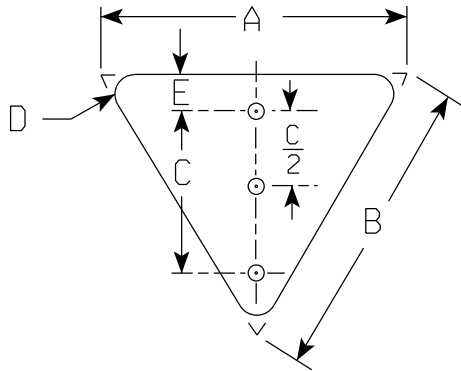
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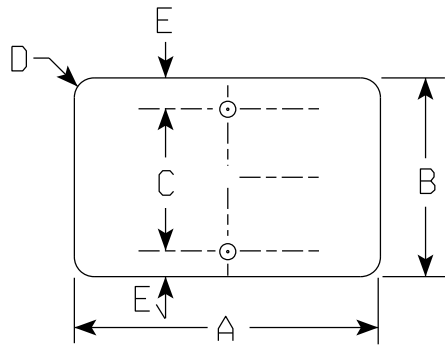
2



3



4



5

TYPE 1						
A	B	C	D	E	Area Sq. Ft.	Mounting Holes
18	18	18	1½	14	2.25	2
24	24	24	1½	20	4.0	2
30	30	30	1⅞	22	6.25	2
36	36	36	2¼	26	9.0	2

TYPE 2					
A	B	C	E	Area Sq. Ft.	Mounting Holes
24	24	20	2	3.31	2
30	30	24	3	5.18	2
36	36	28	4	7.46	2
48	48	36	6	13.25	3

TYPE 3						
A	B	C	D	E	Area Sq. Ft.	Mounting Holes
48	48	26	3	13	16.0	4

TYPE 4						
A	B	C	D	E	Area Sq. Ft.	Mounting Holes
18	18	14	1	2	1.95	2
36	36	24	2	2	3.9	2
48	48	32	3	3	7.0	2

TYPE 5						
A	B	C	D	E	Area Sq. Ft.	Mounting Holes
8	8	6	1½	1	0.44	2
12	12	9	1½	1½	1.00	2
18	18	14	1½	2	2.25	2
21	15	11	1½	2	2.19	2
21	21	17	1½	2	3.06	2
24	12	8	1½	2	2.0	2
24	18	14	1½	2	3.0	2
24	24	20	1½	2	4.0	2
30	12	8	1½	2	2.5	2
30	15	11	1½	2	3.13	2
30	18	14	1½	2	3.75	2
30	21	17	1½	2	4.37	2
30	24	20	1½	2	5.0	2

TYPE 5 CONT'D.						
A	B	C	D	E	Area Sq. Ft.	Mounting Holes
30	30	22	1⅞	4	6.25	2
36	12	8	1½	2	3.0	2
36	18	14	1½	2	4.5	2
36	24	20	1½	2	6.0	2
36	36	26	2¼	5	9.0	2
40	18	14	1½	2	5.00	2
42	21	17	1⅞	2	6.125	2
42	30	22	1⅞	4	8.75	2
48	24	20	1⅞	2	8.0	2

NOTES

1. All sign blanks shall have 7/16" Diameter mounting hole.

ALUMINUM THICKNESS

SIGN WIDTH	NOMINAL THICKNESS
30 inches and under	0.080 inch
Greater than 30-36 inches	0.100 inch
Over 36 inches	0.125 inch

STOP SIGN THICKNESS

SIGN WIDTH	NOMINAL THICKNESS
30 inches	0.100 inch
36-48 inches	0.125 inch

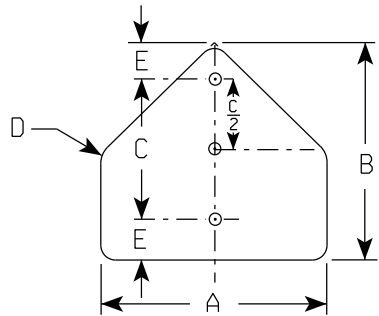
STANDARD LAYOUT OF
ALUMINUM SIGN BLANKS
SHEET 1 OF 3

WISCONSIN DEPT OF TRANSPORTATION

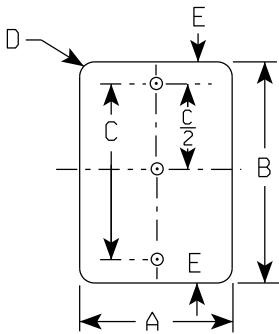
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 8/23/18 PLATE NO. A5-3.24

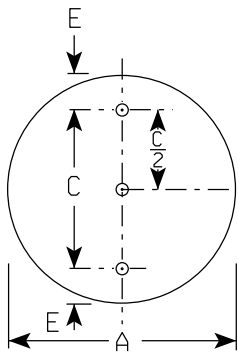
7



6



7



8

NOTES

1. All sign blanks shall have 7/16" Diameter mounting holes.

TYPE 6						
A	B	C	D	E	Area Sq. Ft.	Mounting Holes
30	30	24	1 3/8	3	4.68	2
36	36	26	1 5/8	5	6.75	2
48	48	32	1 7/8	8	12.0	3

TYPE 7 *						
A	B	C	D	E	Area Sq. Ft.	Mounting Holes
12	18	15	1 1/2	1 1/2	1.5	2
12	24	20	1 1/2	2	2.0	2
12	36	24	1 1/2	6	3.0	2
12	48	32	1 1/2	8	4.0	3
15	21	18	1 1/2	1 1/2	2.19	2
18	24	20	1 1/2	2	3.0	2
18	36	24	1 1/2	6	4.5	2
18	54	36	2 1/2	9	6.75	3
21	60	40	1 1/2	10	8.75	3
21	72	52	1 1/2	10	10.5	3
24	30	22	1 1/2	4	5.0	2
24	36	24	1 1/2	6	6.0	2
24	39	27	1 1/2	6	6.5	3
24	45	33	1 7/8	6	7.5	3
24	48	32	1 7/8	8	8.0	3
24	57	37	1 7/8	10	9.5	3
36	48	32	1 7/8	8	12.0	3
30	36	24	1 7/8	6	7.5	2
36	54	36	2 1/4	9	12.75	3
36	57	37	1 7/8	10	14.25	3
48	39	27	1 7/8	10	13.0	3
48	45	32	1 7/8	10	14.0	3
48	57	37	3	10	19.0	3

TYPE 8					
A	B	C	E	Area Sq. Ft.	Mounting Holes
30	—	24	3	4.91	2
36	—	26	5	7.07	2
48	—	32	8	12.5	3

* FOR SIGNS OVER 57" IN HEIGHT, PROVIDE 3 MOUNTING HOLES AT 10" FROM THE TOP AND BOTTOM OF SIGN AND IN THE CENTER OF SIGN.

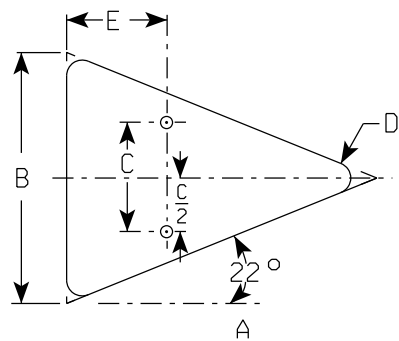
STANDARD LAYOUT OF
ALUMINUM SIGN BLANKS
SHEET 2 OF 3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 8/23/18 PLATE NO. A5-3.24

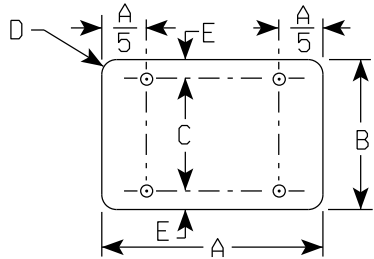
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10

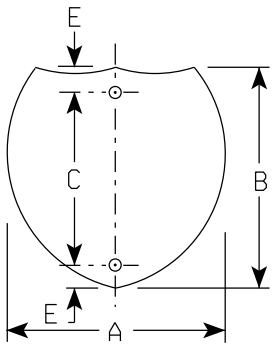
TYPE 10 (NOTE 1)						
A	B	C	D	E	Area Sq. Ft.	Mounting Holes
48	36	14	2 1/4	16	6.0	2

TYPE 11						
A	B	C	D	E	Area Sq. Ft.	Mounting Holes
66	12	8	3	2	5.5	4
66	18	14	3	2	8.25	4
66	24	20	3	2	11.0	4
66	30	22	3	4	13.75	4
66	36	28	3	4	16.5	4
66	42	34	3	4	19.25	4
66	48	40	3	4	22.0	4
72	12	8	3	2	6.0	4
72	18	14	3	2	9.0	4
72	24	20	3	2	12.0	4
72	30	22	3	4	15.0	4
72	36	28	3	4	18.0	4
72	42	34	3	4	21.0	4
72	48	40	3	4	24.0	4



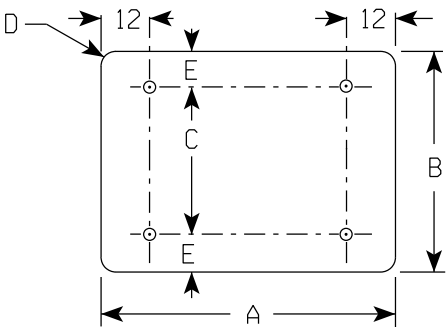
11

TYPE 12 (NOTE 2)					
A	B	C	E	Area Sq. Ft.	Mounting Holes
24	24	18	3	3.13	2
30	24	18	3	3.91	2
36	36	28	4	7.03	2
45	36	28	4	8.79	2



12

TYPE 13						
A	B	C	D	E	Area Sq. Ft.	Mounting Holes
48	60	40	3	10	20.0	4
54	12	8	1 1/2	2	4.5	4
54	15	11	1 1/2	2	5.63	4
54	18	14	1 1/2	2	6.75	4
54	21	17	1 1/2	2	7.88	4
54	24	20	1 7/8	2	9.0	4
54	36	28	1 7/8	4	13.5	4
54	48	40	1 7/8	4	18.0	4
60	12	8	1 1/2	2	5.0	4
60	18	14	1 1/2	2	7.5	4
60	24	20	1 7/8	2	10.0	4
60	30	22	1 7/8	4	12.5	4
60	36	28	1 7/8	4	15.0	4
60	42	34	1 7/8	4	17.5	4
60	48	40	3	4	20.0	4



13

NOTES

1. Dimension A on type #10 is measured to the theoretical intersections of the edges.
2. Shape of type #12 shall conform to FHWA standard for Interstate route markers.
3. All signs over 60" in width shall have 3" radius on the outside corners of the aluminum blank.
4. For signs over 60" in width see sign plate A4-18 for hole placement.

STANDARD LAYOUT OF
ALUMINUM SIGN BLANKS
SHEET 3 OF 3

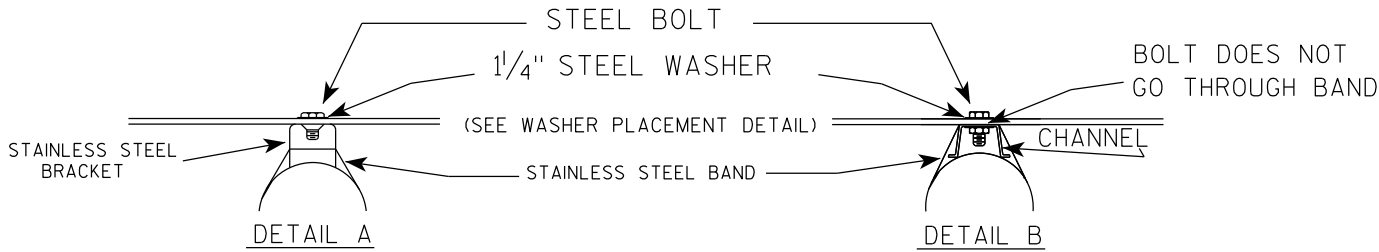
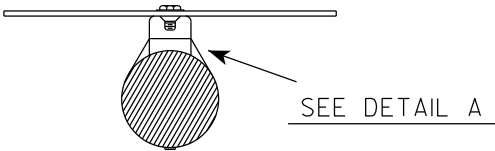
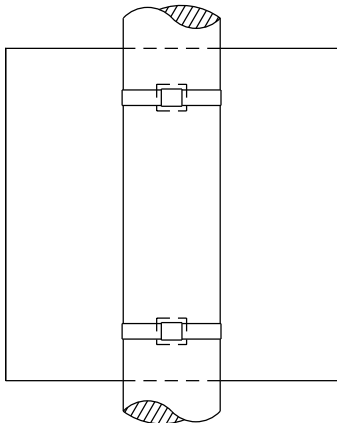
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 8/23/18 PLATE NO. A5.3.24

BANDING

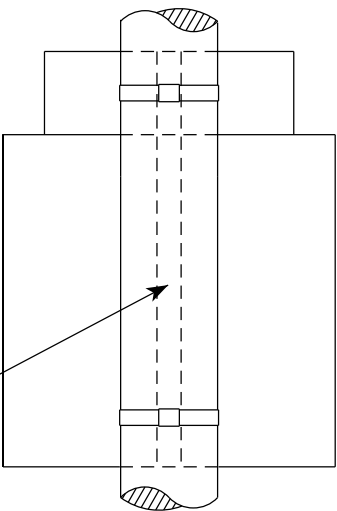
SINGLE SIGN



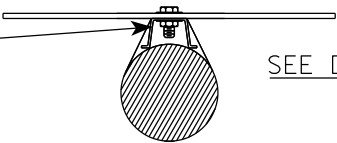
GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be $\frac{3}{4}$ " in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
 - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
 - b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

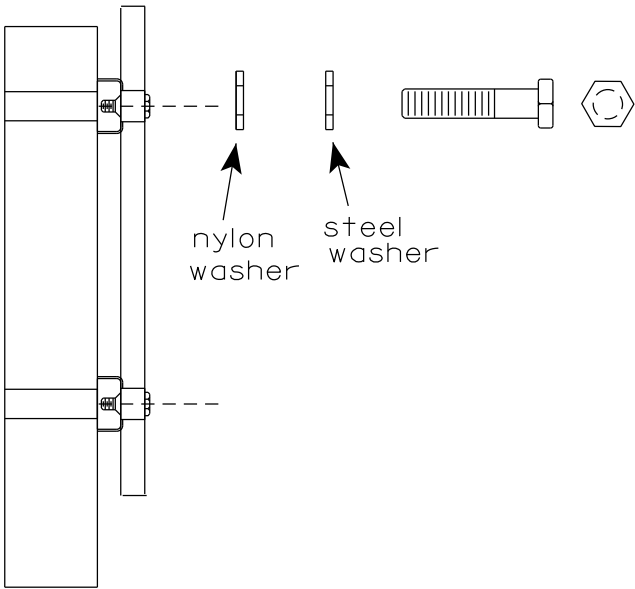
"J" ASSEMBLY



CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET



WASHER PLACEMENT



WASHERS (ALL POSTS) -
1-1/4" O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ " STEEL
1-1/4" O.D. X $\frac{3}{8}$ " I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

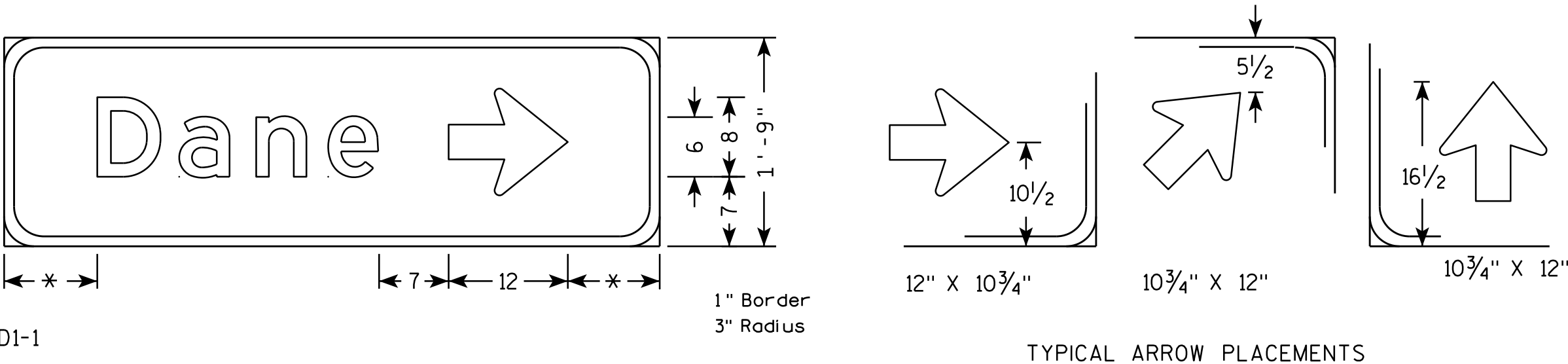
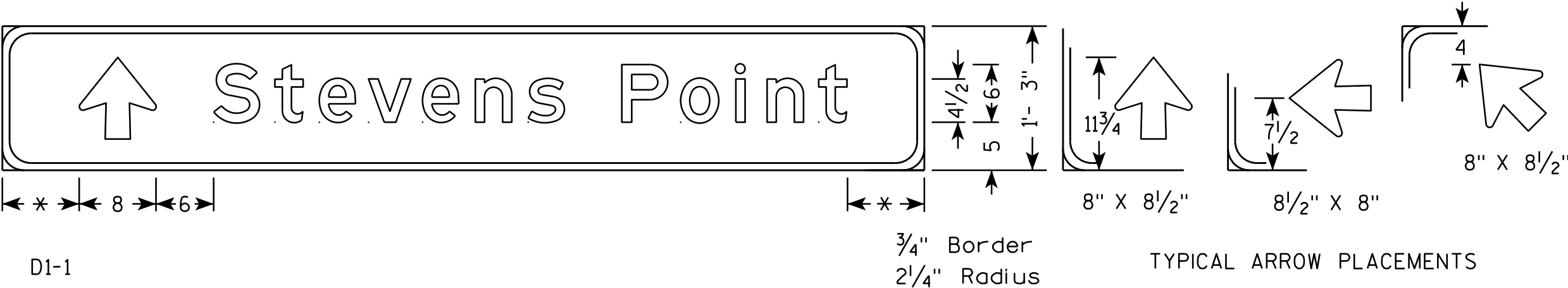
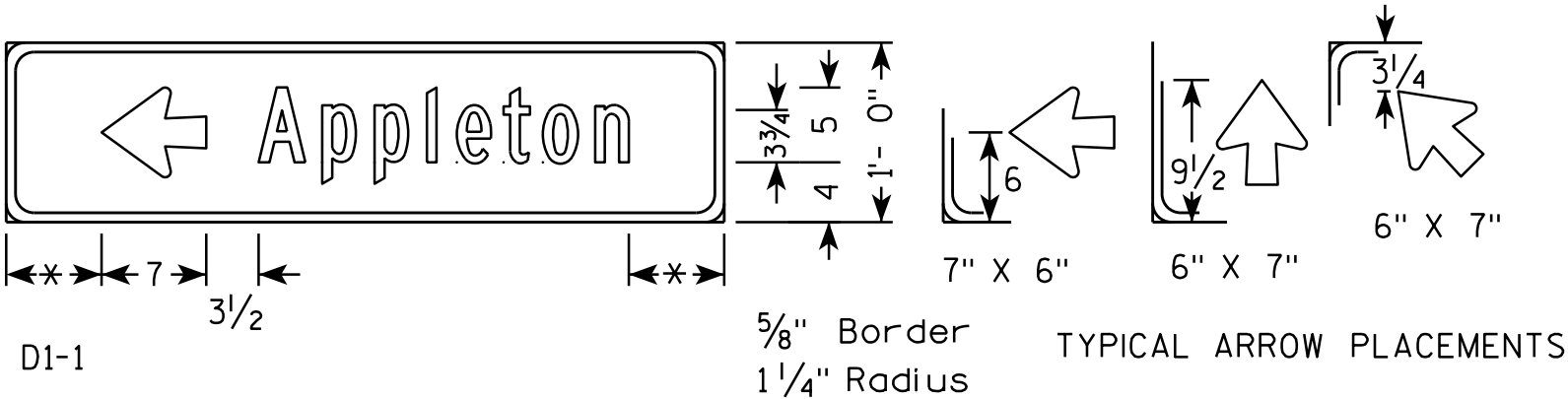
APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 6/10/19 PLATE NO. A5-9.4

TYPICAL EXAMPLES

NOTES

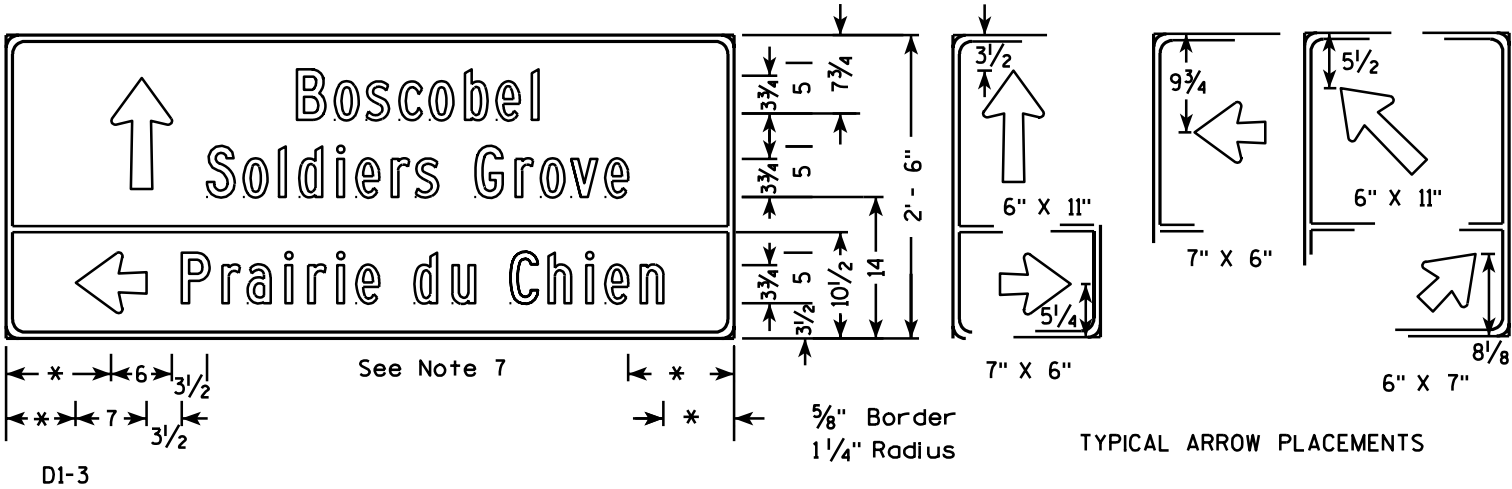
- 1. All signs are Type II - Type H Reflective
- 2. Color:
Background - Green
Message - White - Type H Reflective
- 3. Message Series for 3 3/4" L C is Series C and Series E for 4 1/2" L C and 6" L C.
- 4. Overall length of these signs is in 6" increments.
- 5. Arrows as per standard plate A1-2.
- 6. Tilt arrow is always at 45°.
- 7. Each line of copy including the arrow is centered on the board.

* Minimum dimension normally height of upper case letter.



DESTINATION-DIRECTIONAL SIGNS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 1/27/14	PLATE NO. A11-11A.4

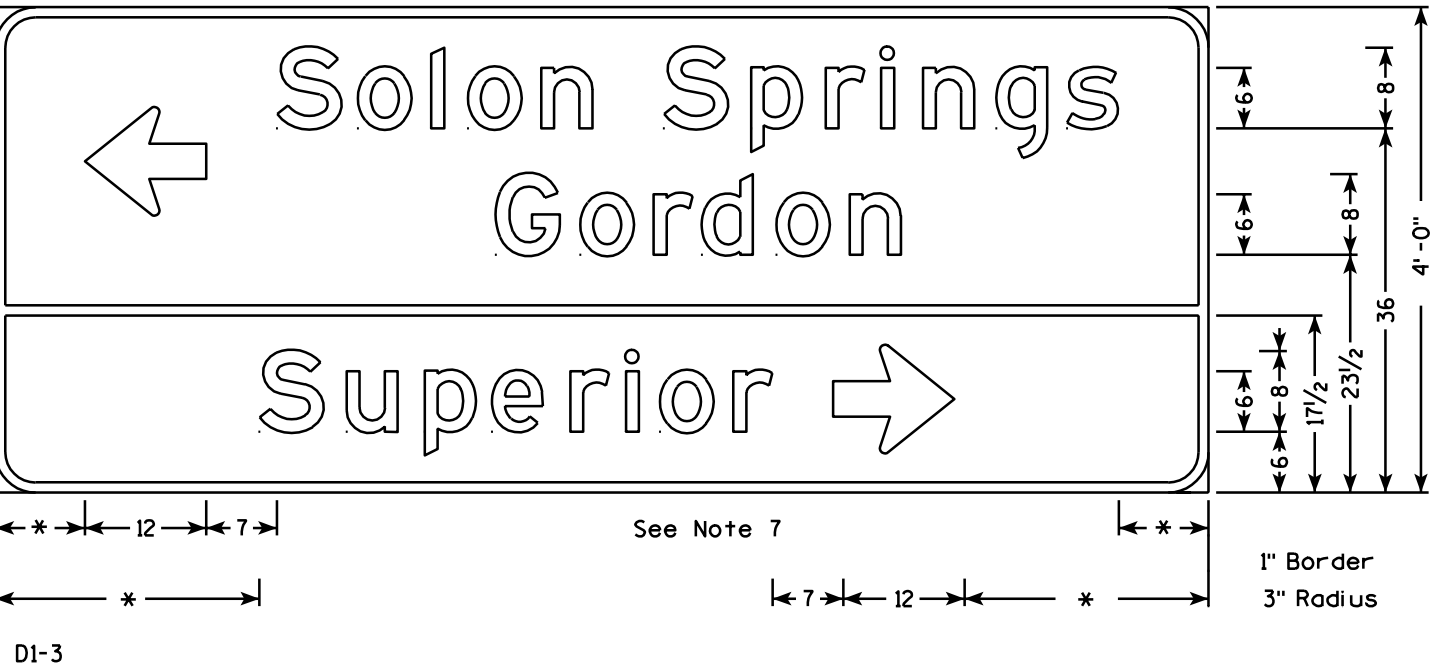
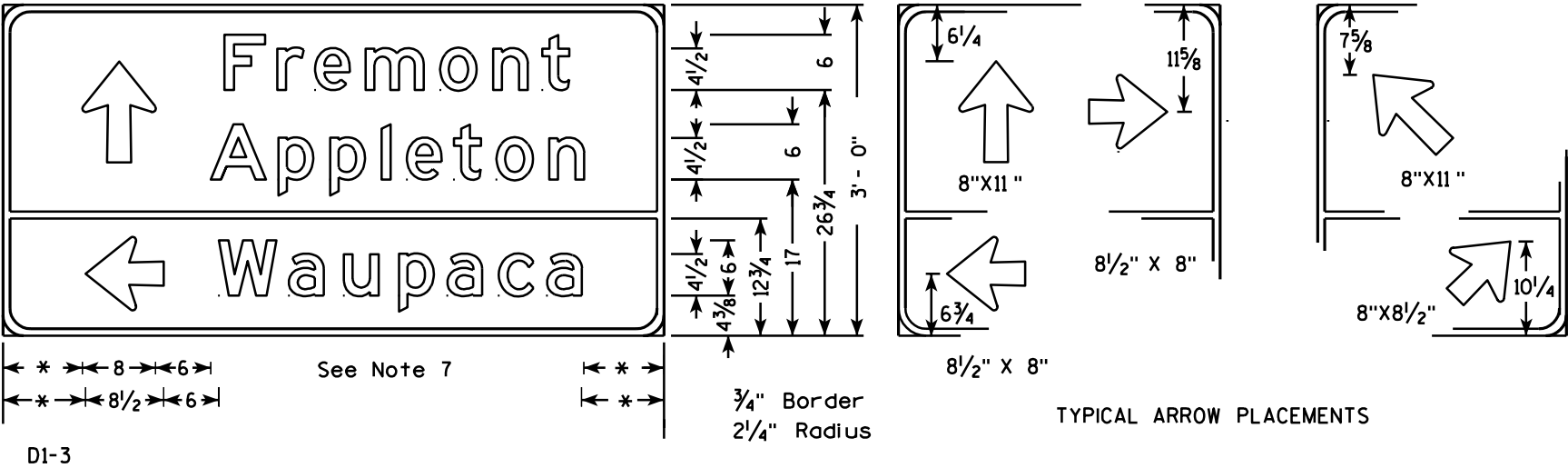
TYPICAL EXAMPLES



NOTES

1. All signs are Type II - Type H Reflective
2. Color:
Background - Green
Message - White - Type H Reflective
3. Message Series for 3 3/4" L C is Series C and Series E for 4 1/2" L C and 6" L C.
4. Overall length of these signs is in 6" increments.
5. Arrows as per standard plate A1-2.
6. Tilt arrow is always at 45°.
7. Center shorter destination over or under longer destination.
8. Each line of copy including arrow or a grouping of two lines with arrow are centered on the board.

* Minimum dimension normally height of upper case letter.



DESTINATION - DIRECTIONAL SIGNS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Chester J. Spang</i> for State Traffic Engineer
DATE 2/18/02	PLATE NO. A11-11F.3

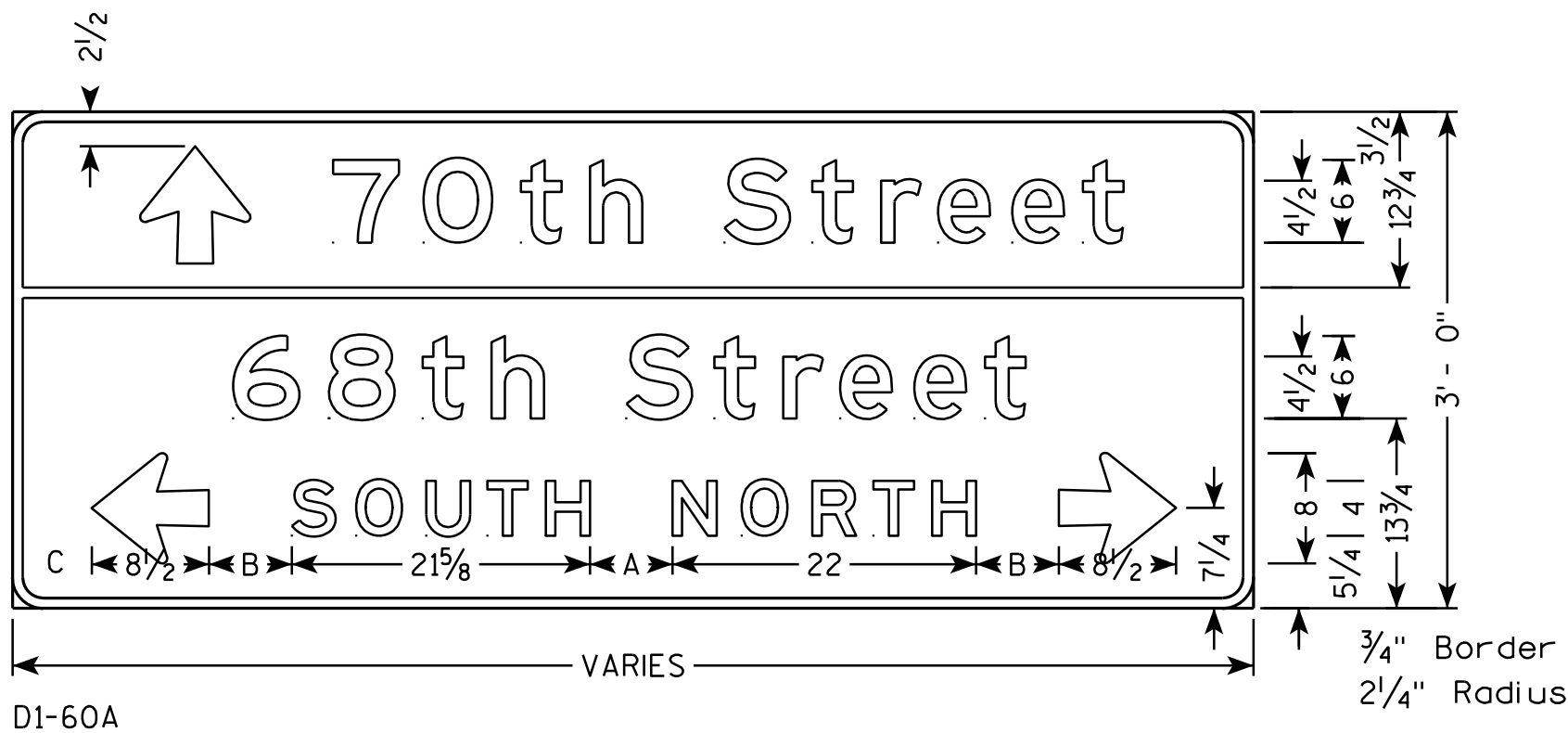
TYPICAL EXAMPLES

NOTES

- 1. All signs are Type II - Type H Reflective
- 2. Color:
Background - Green
Message - White - Type H Reflective
- 3. Message Series - E
- 4. Overall length of these signs is in 6" increments.
- 5. Arrows as per standard plate A1-2.



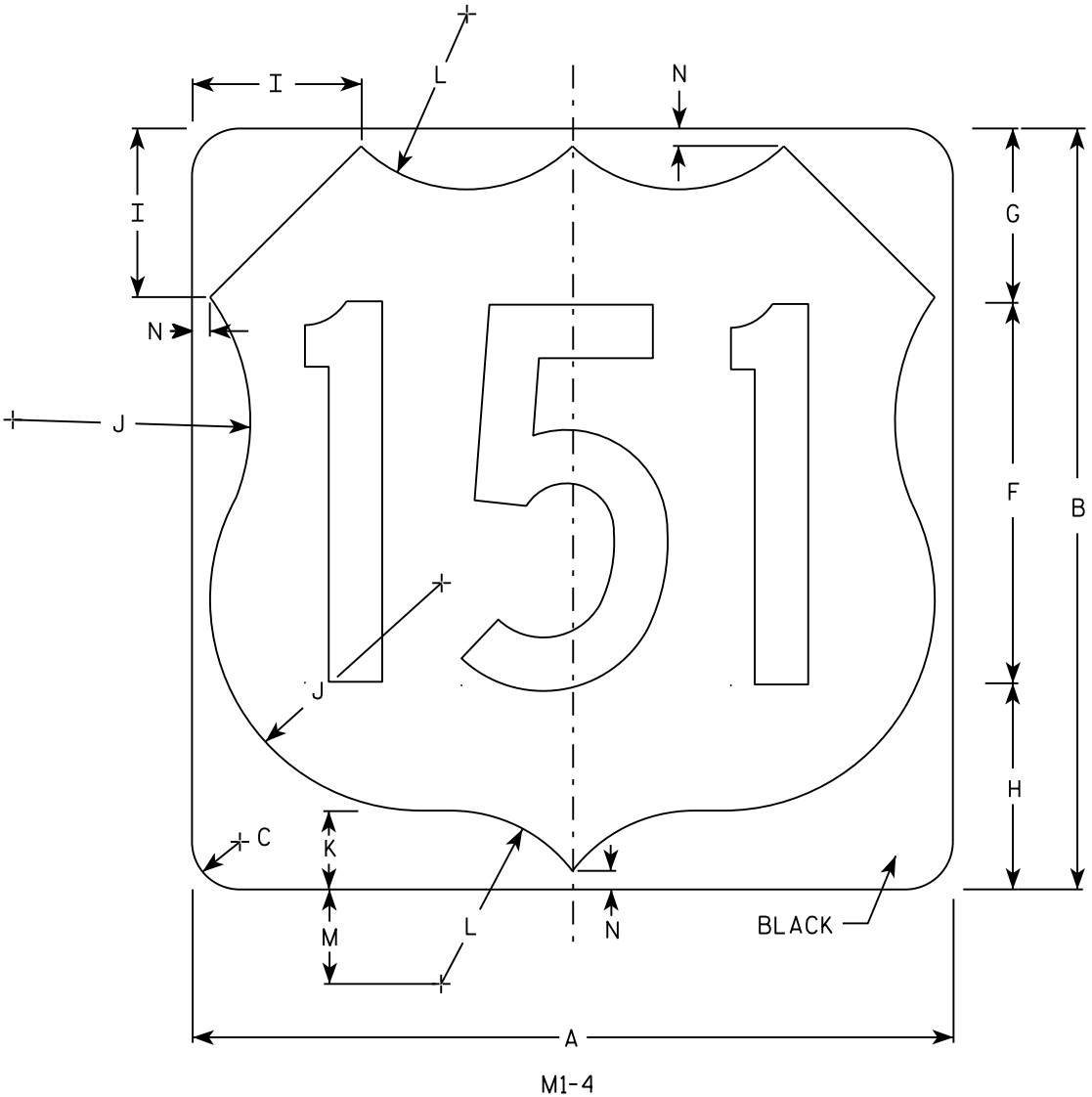
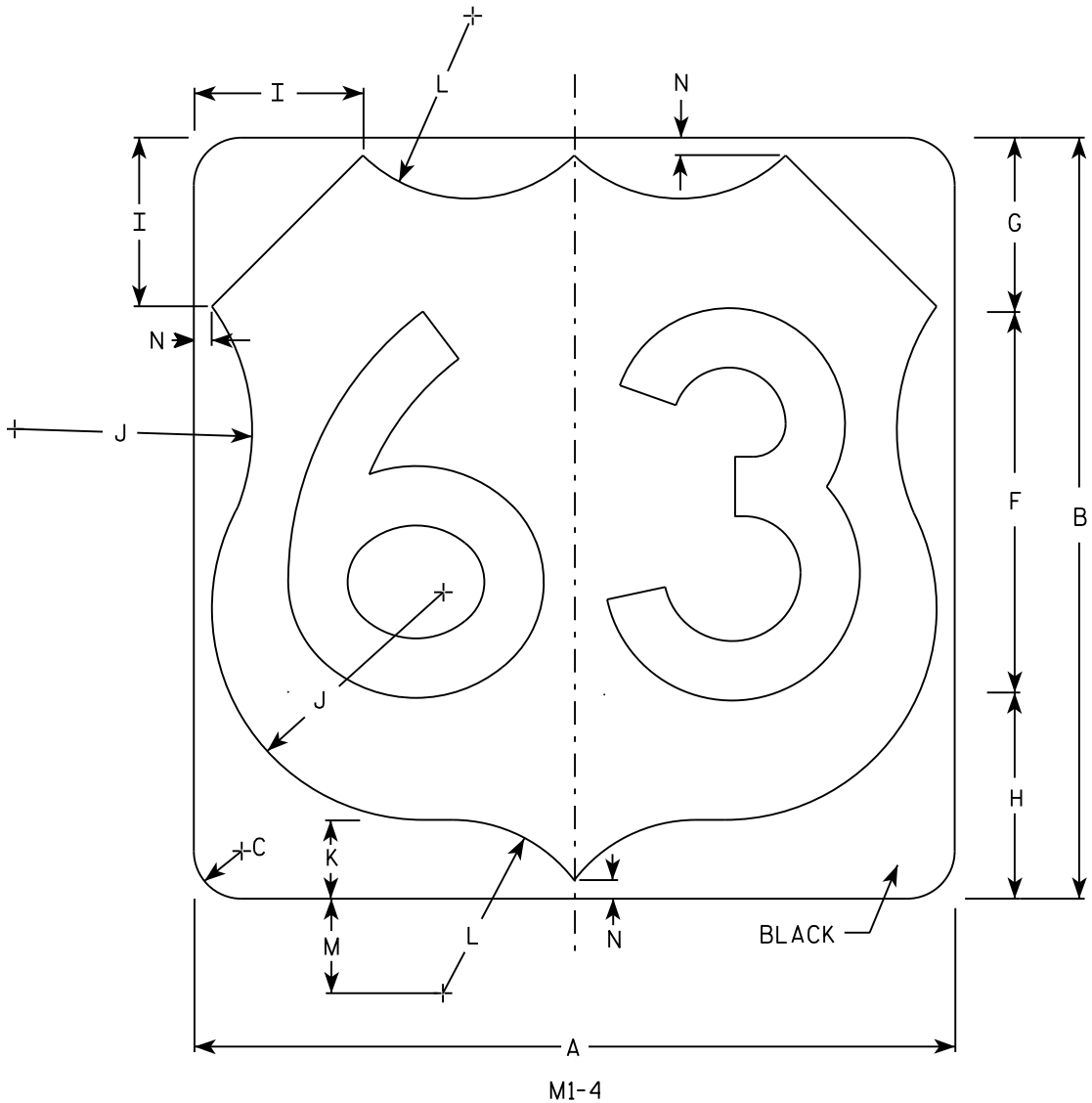
"A" Minimum dimension is six inches
"B" Minimum dimension is five inches
"C" Minimum dimension is four inches



STANDARD SIGN D1-60 & D1-60A	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 2/04/2011	PLATE NO. D1-60.1

NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
Background - White
Message - Black
- 3. Message Series - D except 3 number signs Series C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Areq sq. ft.
1																											
2	24	24	1 1/2			12	5 1/2	6 1/2	5	7 1/2	2 1/2	5 1/2	3	1/2													4.0
3	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0
4	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0
5	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 99

E

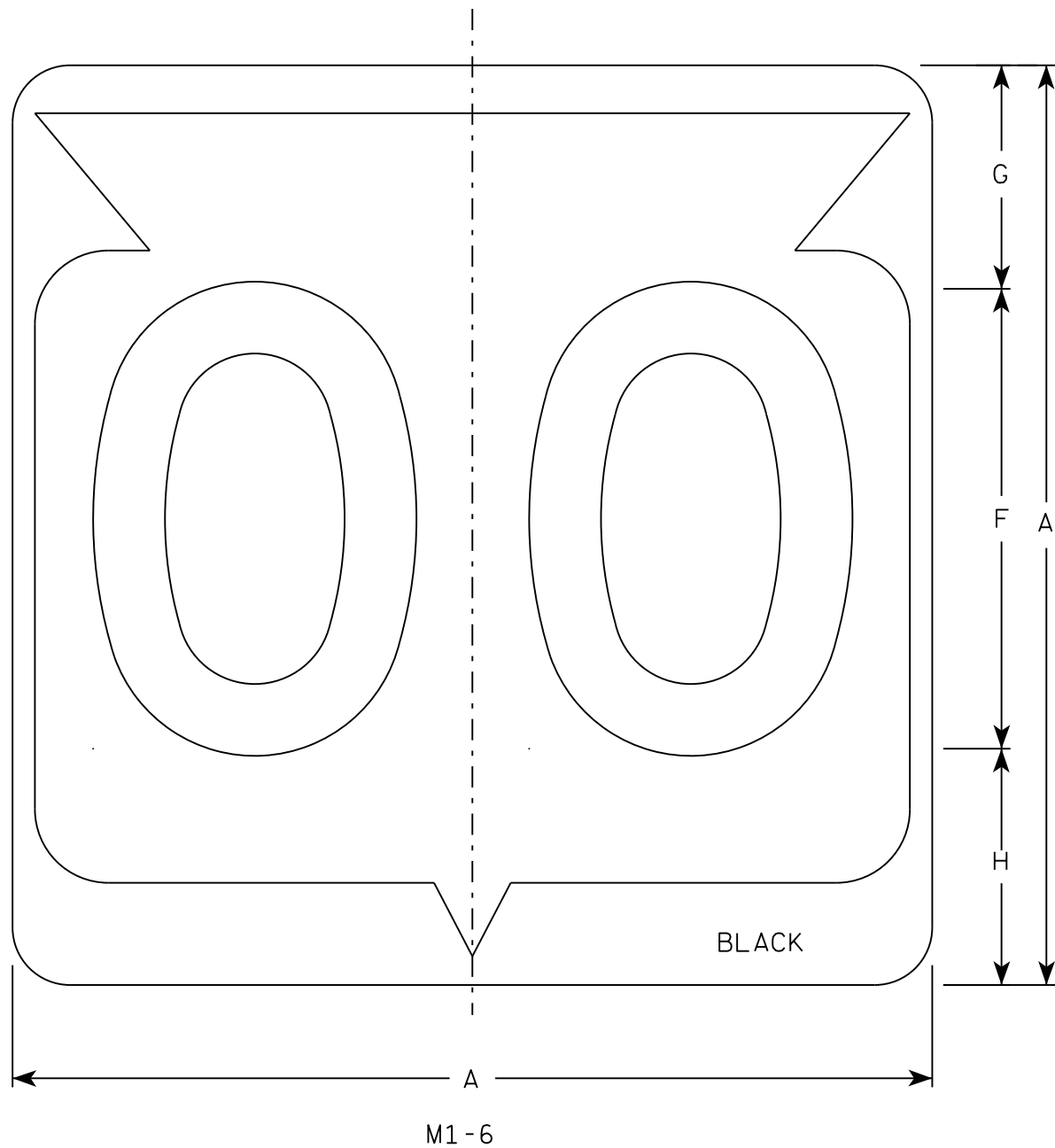
USH MARKER
M1-4 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

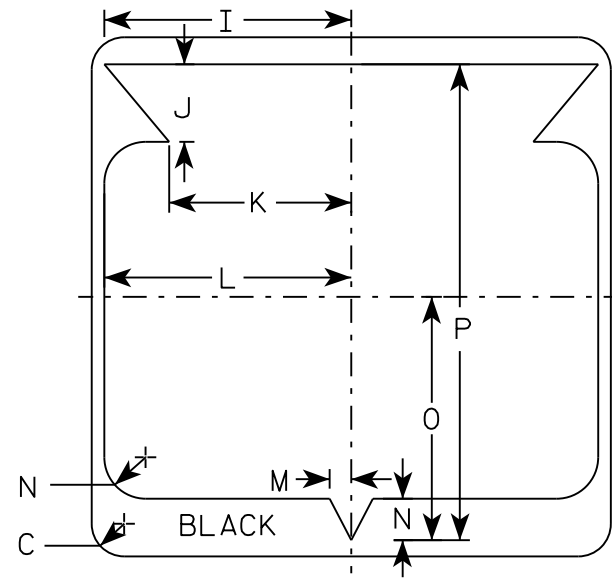
DATE 3/16/18
PLATE NO. M1-4.10

7



NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
Background - White
Message - Black
- 3. Message Series - D except 3 number signs Series C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



7

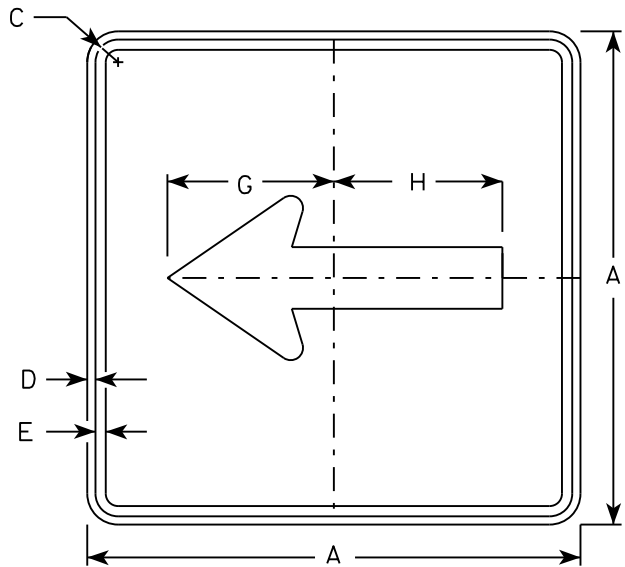
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0

STATE ROUTE MARKER
M1-6 FOR ASSEMBLIES

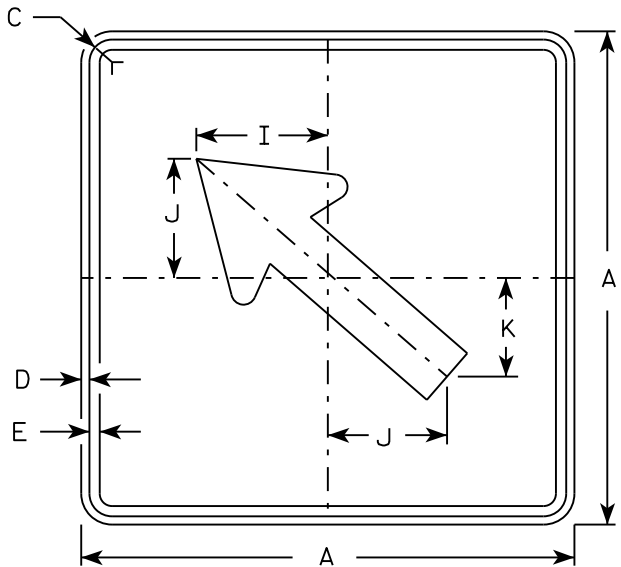
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

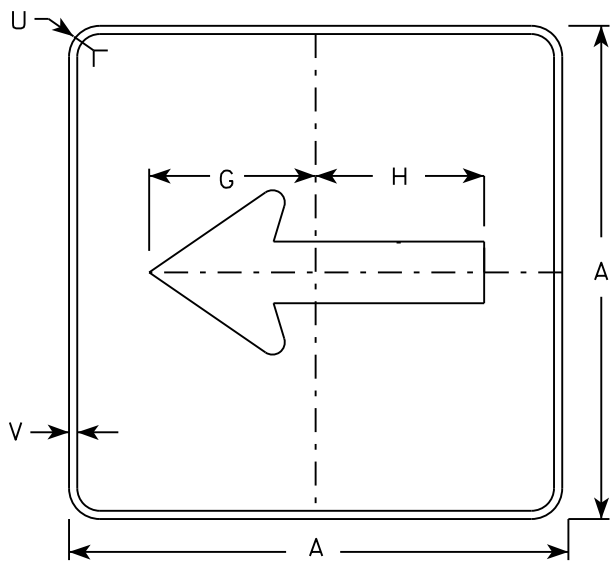
DATE 3/16/18 PLATE NO. M1-6.10



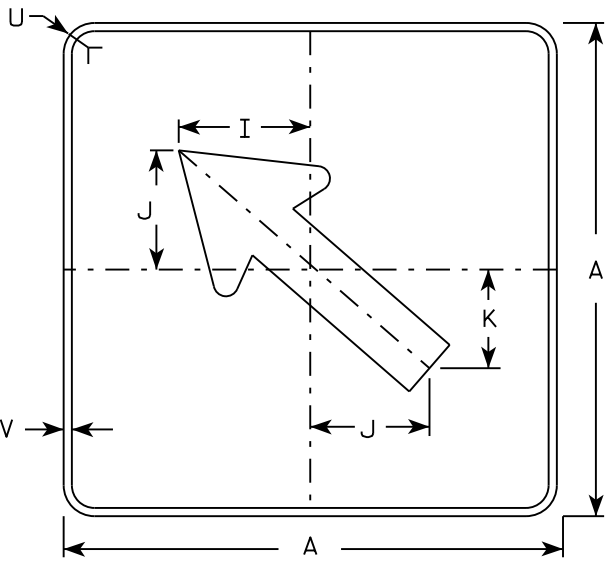
M6 - 1
MM6 - 1
M06 - 1
MP6 - 1



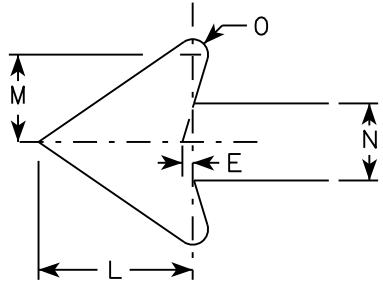
M6 - 2
MM6 - 2
M06 - 2
MP6 - 2



MB6 - 1
MK6 - 1
MN6 - 1
MR6 - 1



MB6 - 2
MK6 - 2
MN6 - 2
MR6 - 2



NOTES

- 1. Signs are Type II - Type H except as Shown
- 2. Color:
Background - See note 4
Message - See note 4
- 3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 4. M6-1 and M6-2 Background - White
Message - Black
MB6-1 and MB6-2 Background - Blue
Message - White
MK6-1 and MK6-2 Background - Green
Message - White
MM6-1 and MM6-2 Background - White
Message - Green
MN6-1 and MN6-2 Background - Brown
Message - White
M06-1 and M06-2 Background - Orange - Type F Reflective
Message - Black
MP6-1 and MP6-2 Background - White
Message - Blue
MR6-1 and MR6-2 Background - Brown
Message - Yellow

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25

PROJECT NO:

HWY:

COUNTY:

SHEET NO:101

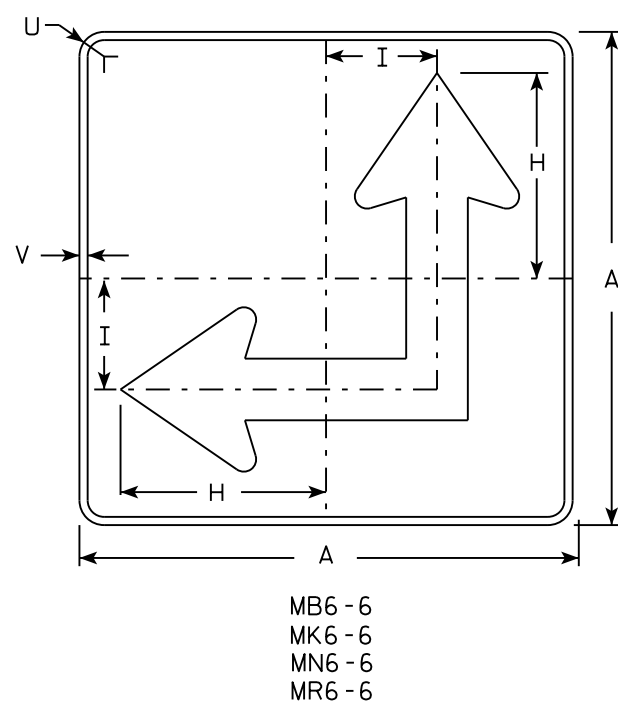
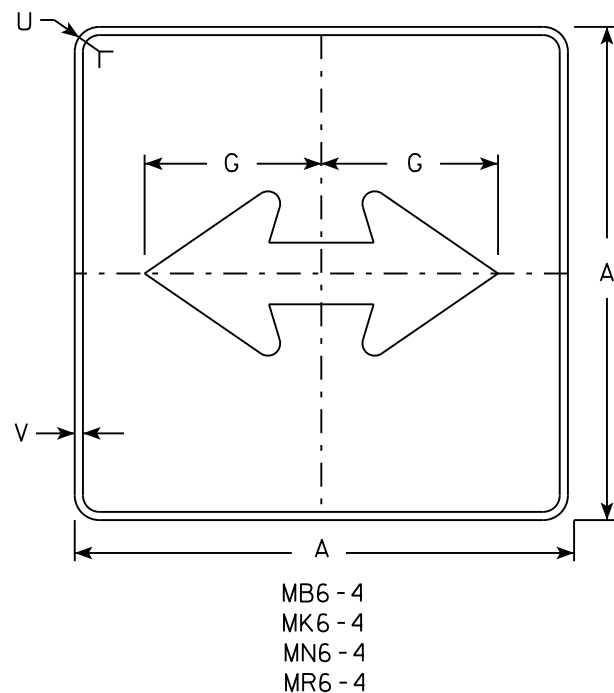
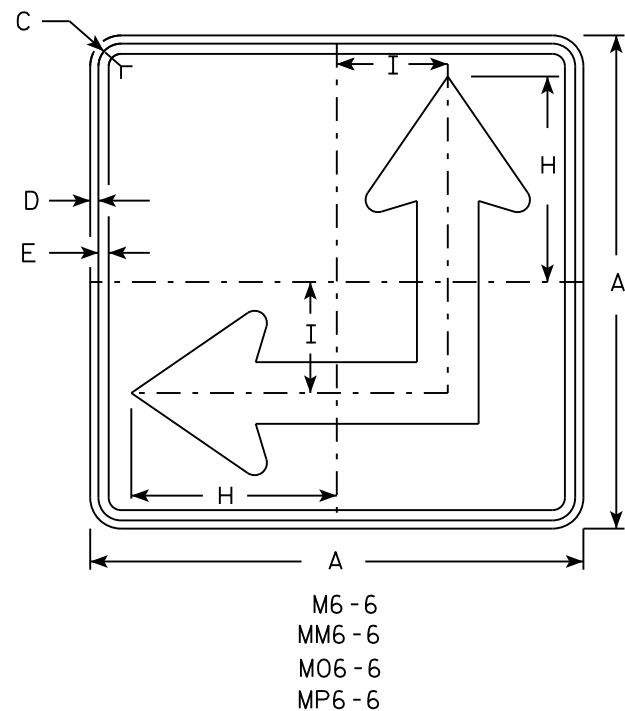
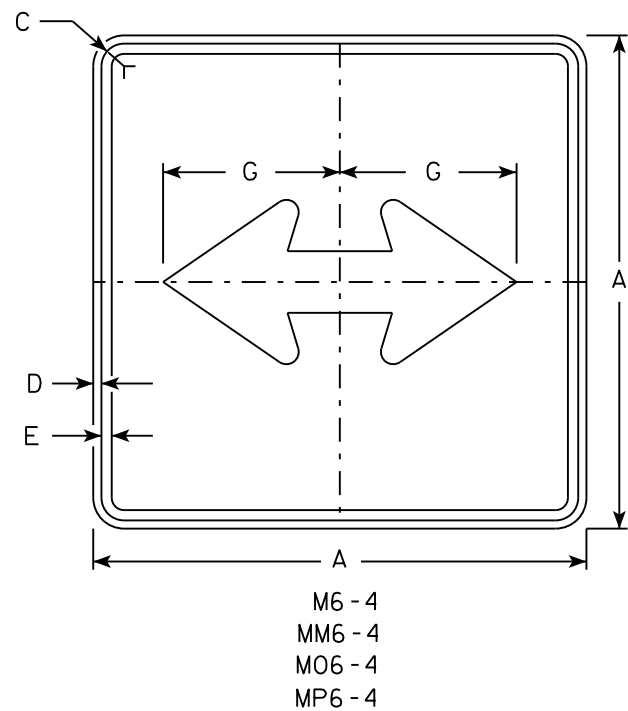
E

STANDARD SIGN
M6 - 1 & M6 - 2
SERIES

WISCONSIN DEPT OF TRANSPORTATION

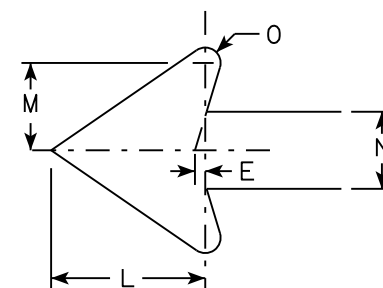
APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE NO. M6-1.15



NOTES

- Signs are Type II - Type H except as Shown
- Color:
Background - See Note 4
Message - See Note 4
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- M6-4 and M6-6 Background - White
Message - Black
MB6-4 and MB6-6 Background - Blue
Message - White
MK6-4 and MK6-6 Background - Green
Message - White
MM6-4 and MM6-6 Background - White
Message - Green
MN6-4 and MN6-6 Background - Brown
Message - White
M06-4 and M06-6 Background - Orange - Type F Reflective
Message - Black
MP6-4 and MP6-6 Background - White
Message - Blue
MR6-4 and MR6-6 Background - Brown
Message - Yellow
- M6-6R same as M6-6L except arrow points ahead and right.



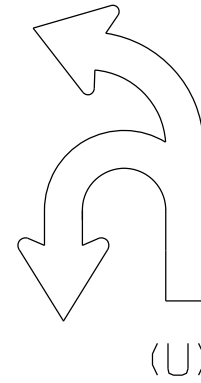
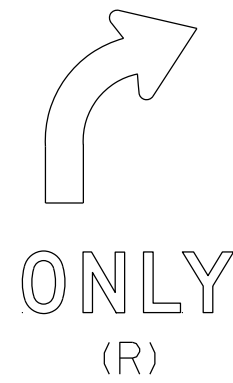
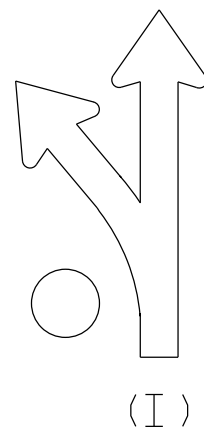
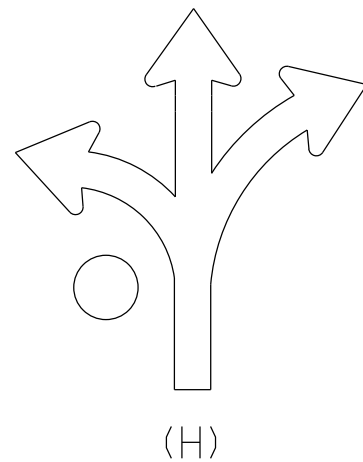
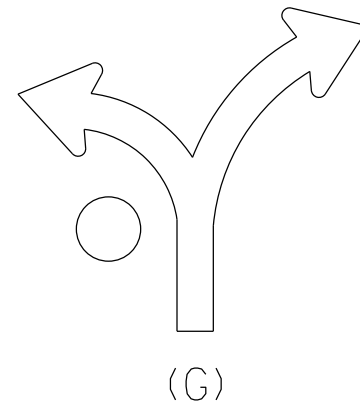
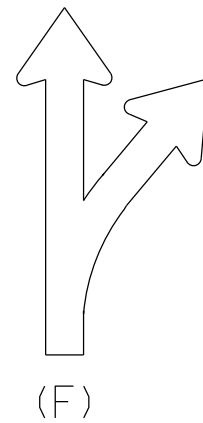
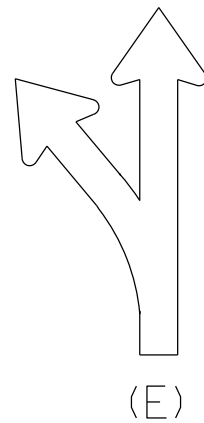
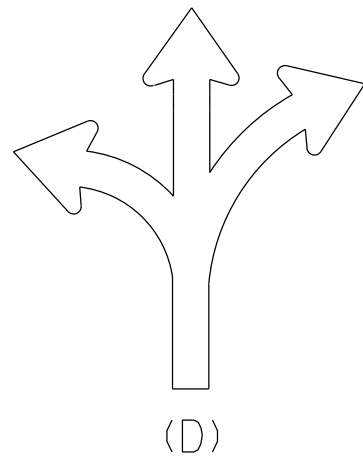
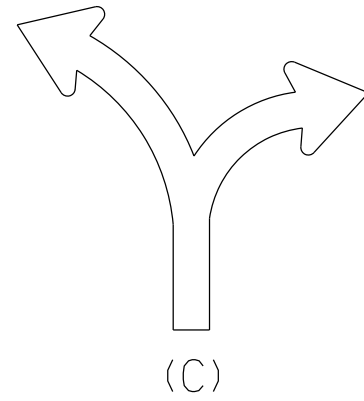
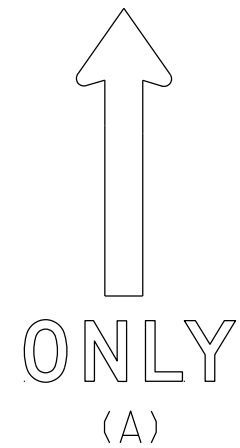
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	8 3/4	4 1/4			5 1/4	3	2 5/8	1/2						1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25

STANDARD SIGN
M6 - 4 & M6 - 6
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 10/15/15 PLATE NO. M6-4.10



NOTES

1. Signs are Type II - Type H Reflective
2. Color:
Background - White
Message - Black
3. Message Series - D
4. Use appropriate Letter for Sign Code
Each letter added makes sign wider. Example R3-8EAR
5. Square footage of sign varies by letters

1 Letter = 3.75 sq ft for Size 2

6.0 sq ft for Size 3

10.0 sq ft for Size 4 or 5

2 Letters = 7.5 sq ft for Size 2

12.0 sq ft for Size 3

20.0 sq ft for Size 4 or 5

3 Letters = 11.25 sq ft for Size 2

18.0 sq ft for Size 3

30.0 sq ft for Size 4 or 5

4 Letters = 15.0 sq ft for Size 2

24.0 sq ft for Size 3

40.0 sq ft for Size 4 or 5

5 Letters = 18.75 sq ft for Size 2

30.0 sq ft for Size 3

50.0 sq ft for Size 4 or 5

6 Letters = 22.5 sq ft for Size 2

36.0 sq ft for Size 3

60.0 sq ft for Size 4 or 5

6. When letters C,D,G,H are used on the Left or Right end of the sign the Sq.Ft. changes.

Add the amounts when these letters are used:

1.25 sq ft for Size 2

1.5 sq ft for Size 3

2.0 sq ft for Size 4 or 5

STANDARD SIGN
R3-8 Series

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO:

FILE NAME : C:\CAEfiles\Projects\stdplate_R38.dgn

PLOT DATE : 21-MAY 2019 4:37

PLOT BY : mscj9h

PLOT NAME :

SHEET NO: 103

E

WISDOT/CADDs SHEET 42

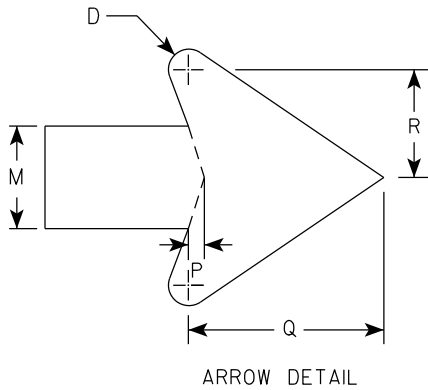
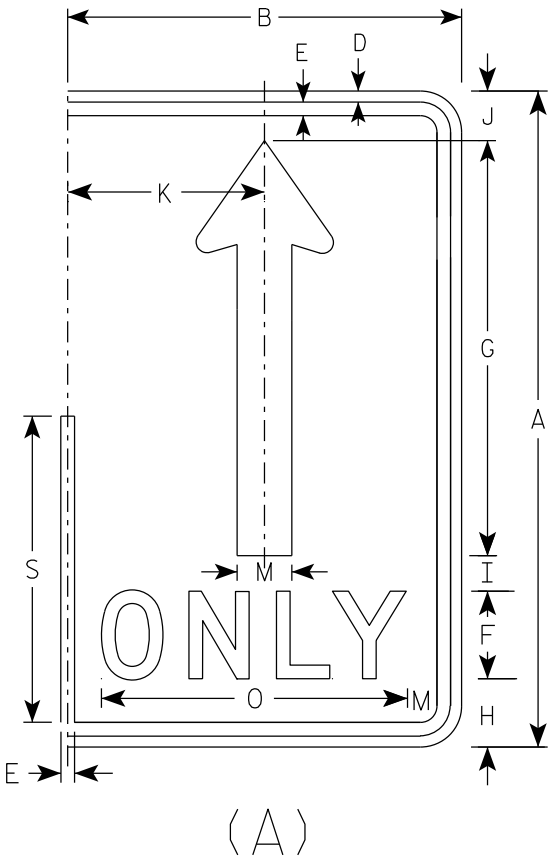
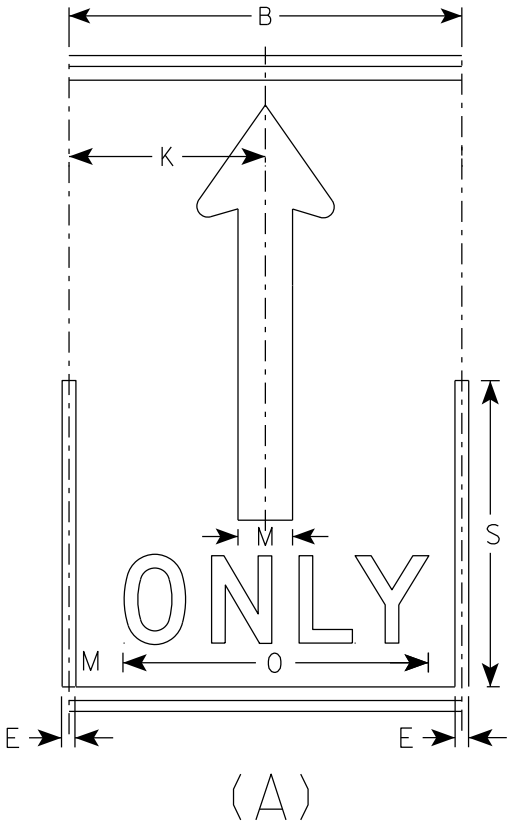
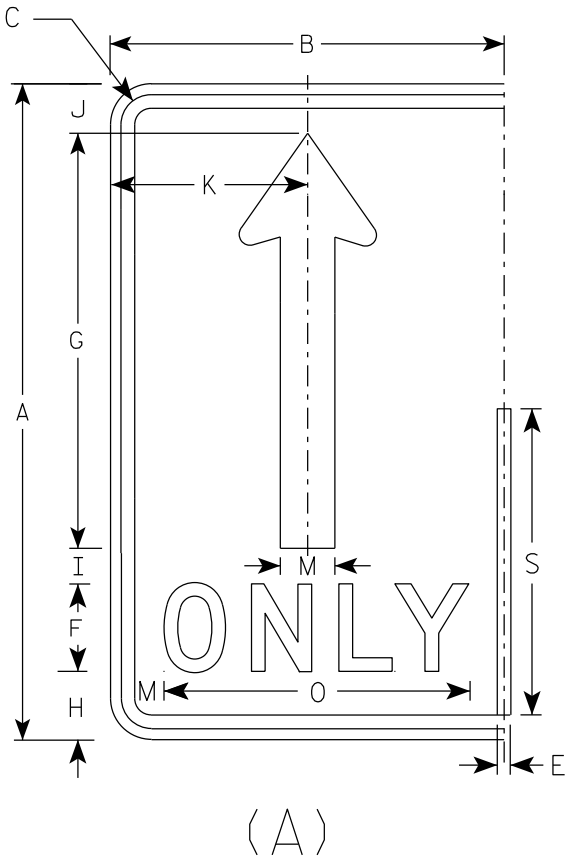
7

NOTES

1. Sign is Type II - Type H Reflective
2. Color:

Background - White

Message - Black
3. Message Series - D



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 3⁄8	1⁄2	5⁄8	4	19	3 1⁄8	1 5⁄8	2 1⁄4	9		2 1⁄2		14	3⁄8	4 3⁄4	2 5⁄8	14								3.75
2M	30	18	1 3⁄8	1⁄2	5⁄8	4	19	3 1⁄8	1 5⁄8	2 1⁄4	9		2 1⁄2		14	3⁄8	4 3⁄4	2 5⁄8	14								3.75
3	36	24	1 3⁄8	1⁄2	5⁄8	5	22 3⁄4	3 3⁄4	1 3⁄4	2 3⁄4	12		3		17 5⁄8	1⁄2	5 3⁄4	3 1⁄8	16 3⁄4								6.0
4	48	30	2 1⁄4	3⁄4	1	6	30 3⁄8	5 1⁄8	2 7⁄8	3 5⁄8	15		4		21 3⁄4	5⁄8	7 5⁄8	4 1⁄4	22 3⁄8								10.0
5	48	30	2 1⁄4	3⁄4	1	6	30 3⁄8	5 1⁄8	2 7⁄8	3 5⁄8	15		4		21 3⁄4	5⁄8	7 5⁄8	4 1⁄4	22 3⁄8								10.0

STANDARD SIGN
R3-8 (A) Arrow

WISCONSIN DEPT OF TRANSPORTATION

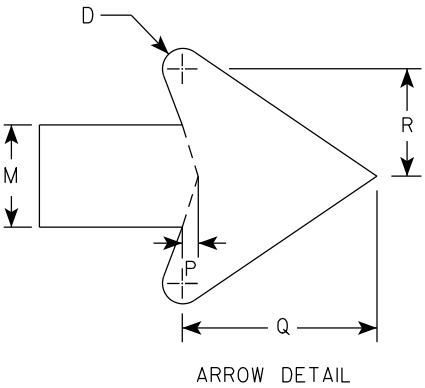
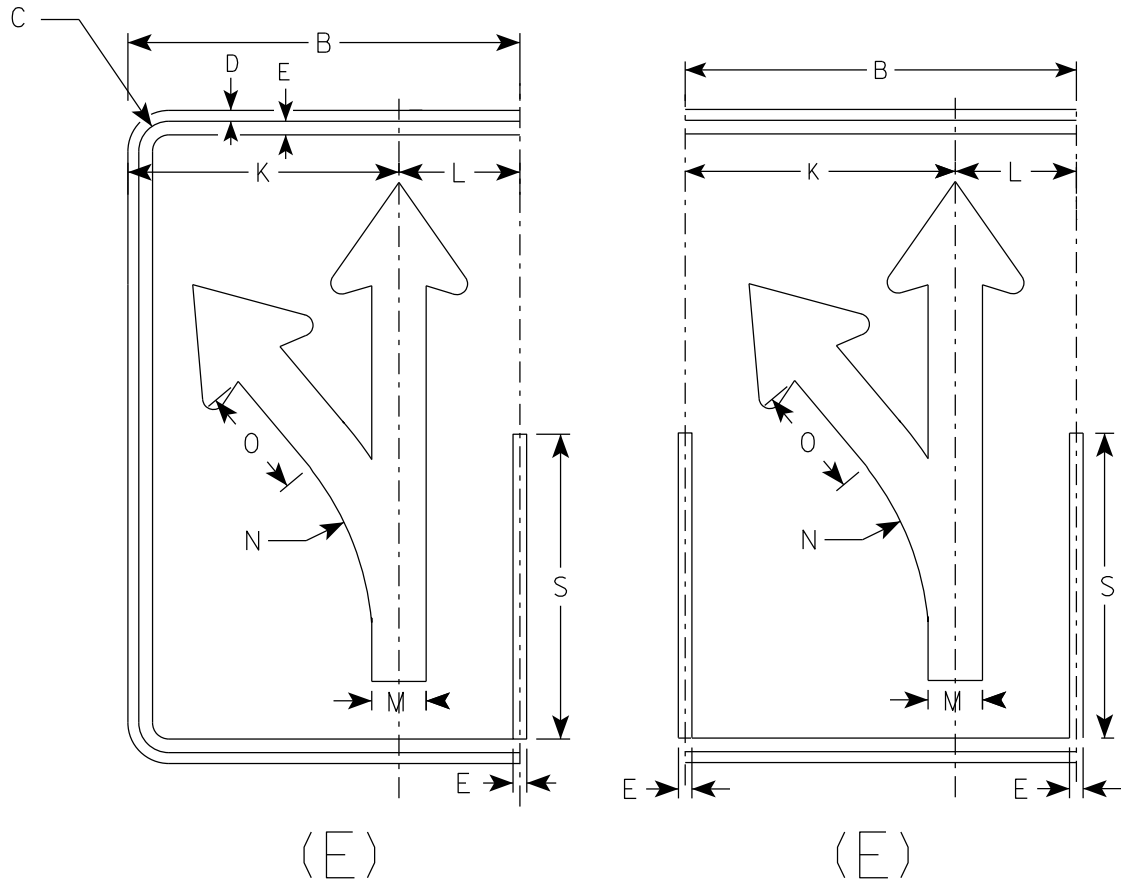
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

7

NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
 - Background - White
 - Message - Black
- 3. Message Series - None



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 3⁄8	1⁄2	5⁄8		18 1⁄4	4 3⁄4	3 1⁄4	3	12 1⁄2	5 1⁄2	2 1⁄2	13 1⁄4	5 1⁄8	3⁄8	4 3⁄4	2 5⁄8	14								3.75
2M	30	18	1 3⁄8	1⁄2	5⁄8		18 1⁄4	4 3⁄4	3 1⁄4	3	12 1⁄2	5 1⁄2	2 1⁄2	13 1⁄4	5 1⁄8	3⁄8	4 3⁄4	2 5⁄8	14								3.75
3	36	24	1 3⁄8	1⁄2	5⁄8		21 7⁄8	5 5⁄8	4	4 7⁄8	16 1⁄8	7 3⁄4	3	15 7⁄8	6 1⁄8	1⁄2	5 3⁄4	3 1⁄8	16 3⁄4								6.0
4	48	30	2 1⁄4	3⁄4	1		29 1⁄8	7 1⁄2	5 1⁄4	5 3⁄8	20 1⁄2	9 1⁄2	4	21 1⁄4	8 1⁄4	5⁄8	7 5⁄8	4 1⁄4	22 3⁄8								10.0
5	48	30	2 1⁄4	3⁄4	1		29 1⁄8	7 1⁄2	5 1⁄4	5 3⁄8	20 1⁄2	9 1⁄2	4	21 1⁄4	8 1⁄4	5⁄8	7 5⁄8	4 1⁄4	22 3⁄8								10.0

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 105

E

STANDARD SIGN
R3-8 (E) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

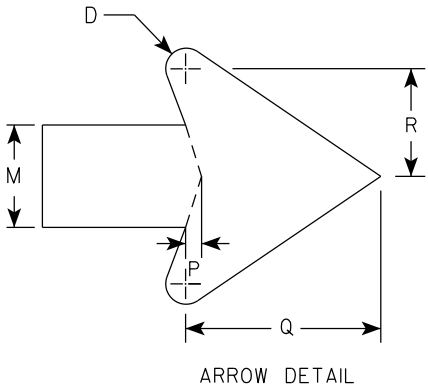
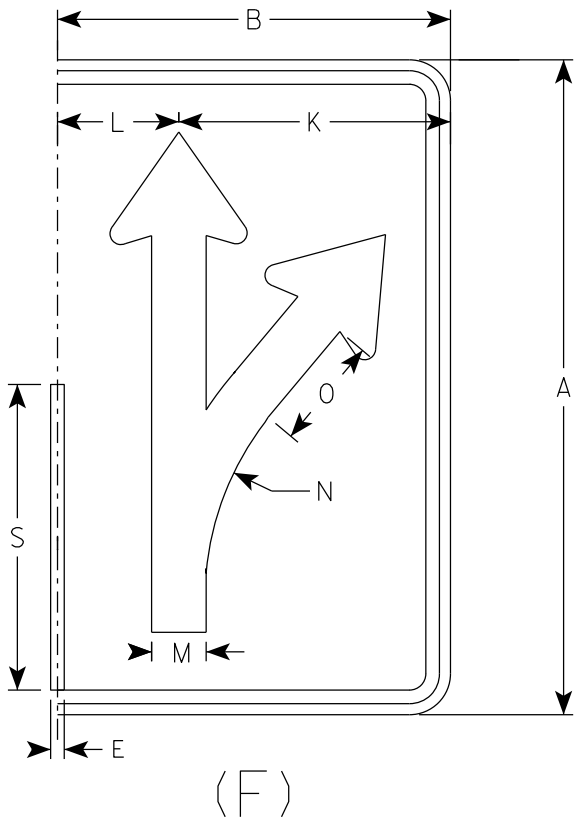
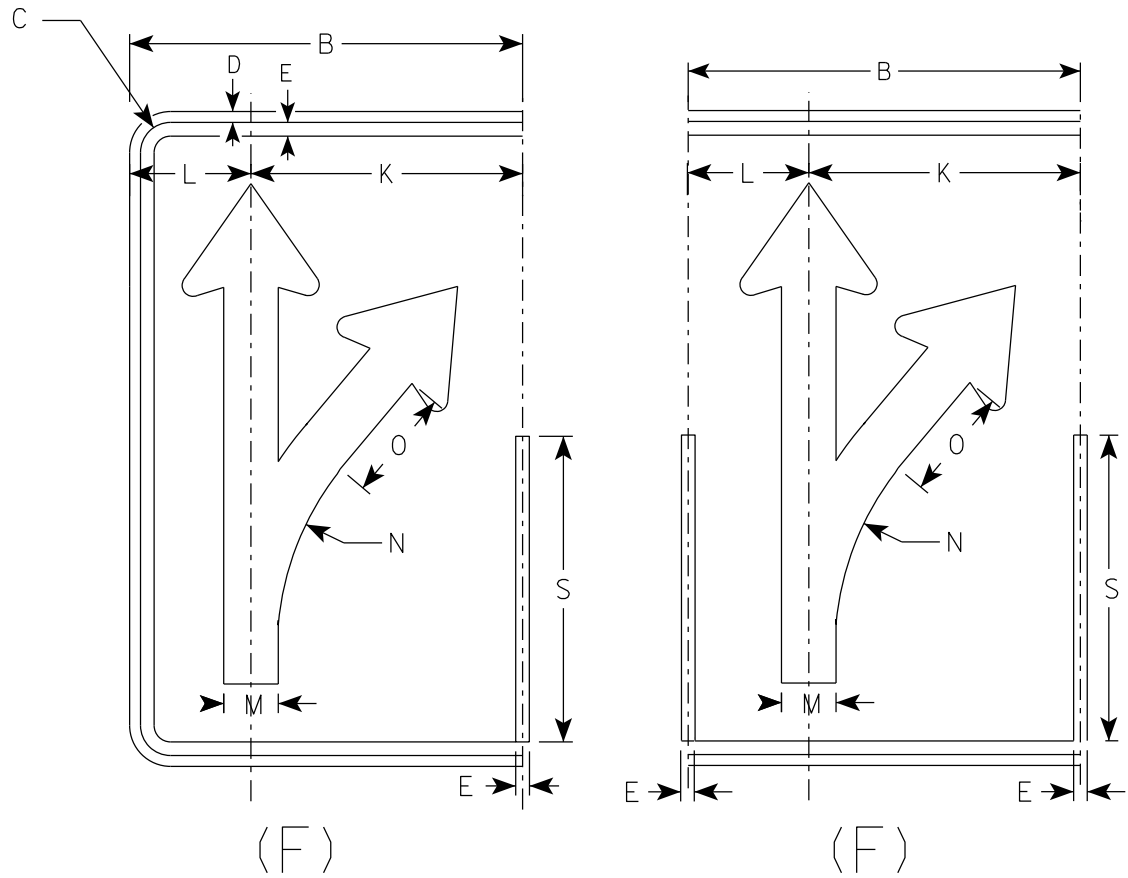
DATE 5/21/19 PLATE NO. R3-8.1

NOTES

1. Sign is Type II - Type H Reflective
2. Color:

Background - White

Message - Black
3. Message Series - None



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 3⁄8	1⁄2	5⁄8		18 1⁄4	4 3⁄4	3 1⁄4	3	12 1⁄2	5 1⁄2	2 1⁄2	13 1⁄4	5 1⁄8	3⁄8	4 3⁄4	2 5⁄8	14								3.75
2M	30	18	1 3⁄8	1⁄2	5⁄8		18 1⁄4	4 3⁄4	3 1⁄4	3	12 1⁄2	5 1⁄2	2 1⁄2	13 1⁄4	5 1⁄8	3⁄8	4 3⁄4	2 5⁄8	14								3.75
3	36	24	1 3⁄8	1⁄2	5⁄8		21 7⁄8	5 5⁄8	4	4 7⁄8	16 1⁄8	7 3⁄4	3	15 7⁄8	6 1⁄8	1⁄2	5 3⁄4	3 1⁄8	16 3⁄4								6.0
4	48	30	2 1⁄4	3⁄4	1		29 1⁄8	7 1⁄2	5 1⁄4	5 3⁄8	20 1⁄2	9 1⁄2	4	21 1⁄4	8 1⁄4	5⁄8	7 5⁄8	4 1⁄4	22 3⁄8								10.0
5	48	30	2 1⁄4	3⁄4	1		29 1⁄8	7 1⁄2	5 1⁄4	5 3⁄8	20 1⁄2	9 1⁄2	4	21 1⁄4	8 1⁄4	5⁄8	7 5⁄8	4 1⁄4	22 3⁄8								10.0

STANDARD SIGN

R3-8 (F) Arrow

WISCONSIN DEPT OF TRANSPORTATION

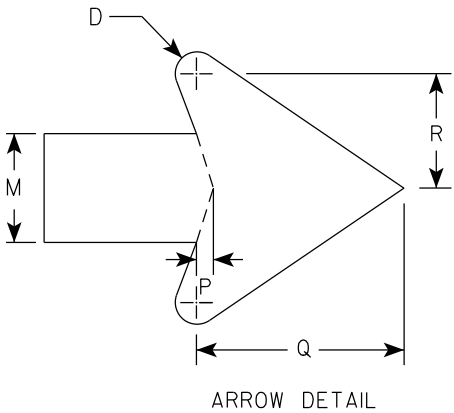
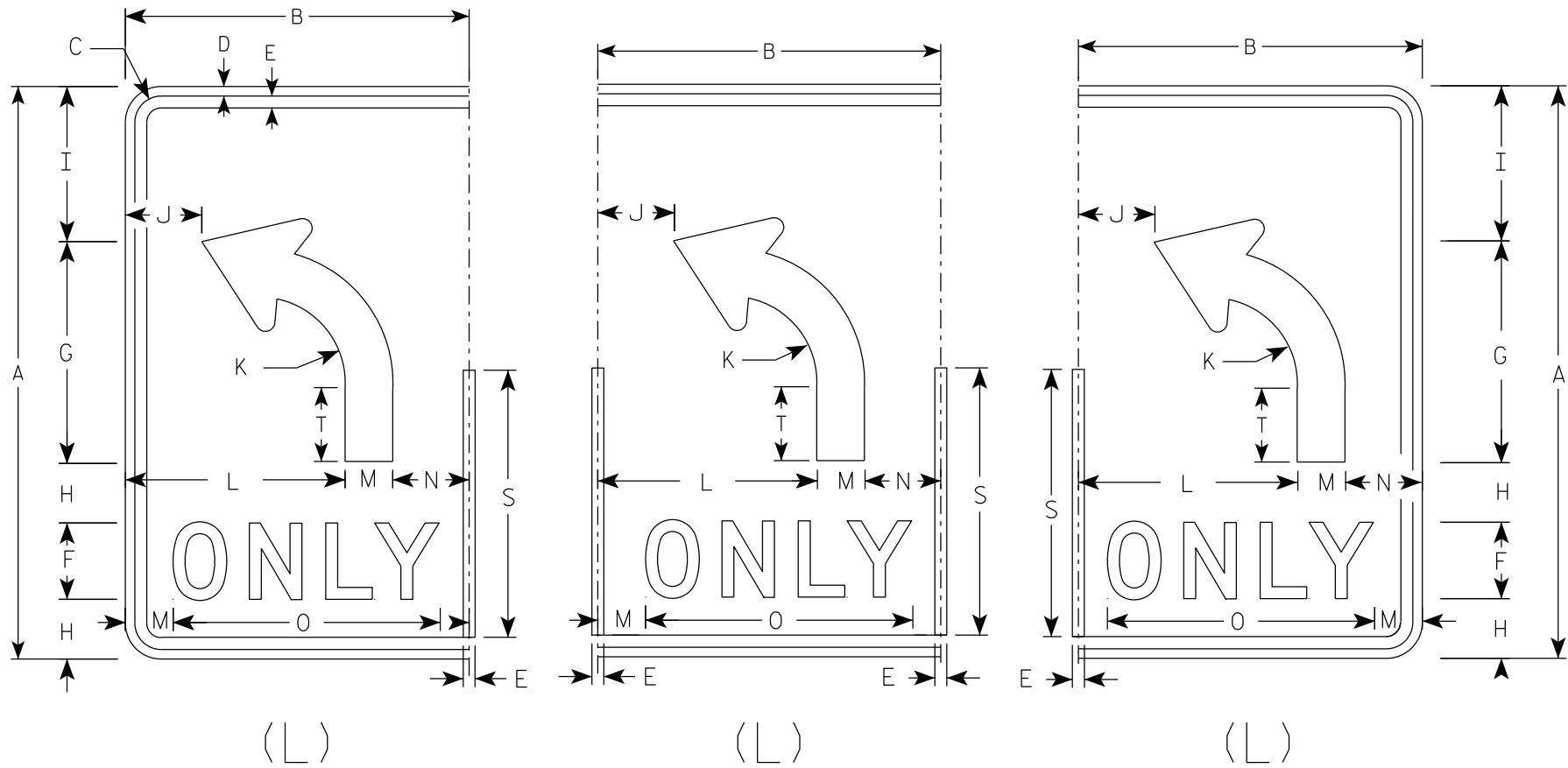
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

7

NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
Background - White
Message - Black
- 3. Message Series - D



7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 3⁄8	1⁄2	5⁄8	4	11 5⁄8	3 1⁄8	8 1⁄8	4	4 1⁄2	11 1⁄2	2 1⁄2	4	14	3⁄8	4 3⁄4	2 5⁄8	14	3 7⁄8							3.75
2M	30	18	1 3⁄8	1⁄2	5⁄8	4	11 5⁄8	3 1⁄8	8 1⁄8	4	4 1⁄2	11 1⁄2	2 1⁄2	4	14	3⁄8	4 3⁄4	2 5⁄8	14	3 7⁄8							3.75
3	36	24	1 3⁄8	1⁄2	5⁄8	5	14	3 1⁄2	9 3⁄4		5 3⁄8	15	3	6	17 5⁄8	1⁄2	5 3⁄4	3 1⁄8	16 3⁄4	4 5⁄8							6.0
4	48	30	2 1⁄4	3⁄4	1	6	18 5⁄8	5 1⁄8	13 1⁄8	6 1⁄8	7 1⁄4	18	4	8	21 3⁄4	5⁄8	7 5⁄8	4 1⁄4	22 3⁄8	6 1⁄4							10.0
5	48	30	2 1⁄4	3⁄4	1	6	18 5⁄8	5 1⁄8	13 1⁄8	6 1⁄8	7 1⁄4	18	4	8	21 3⁄4	5⁄8	7 5⁄8	4 1⁄4	22 3⁄8	6 1⁄4							10.0

STANDARD SIGN

R3-8 (L) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*

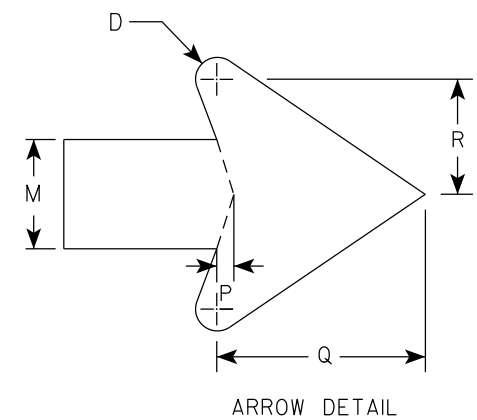
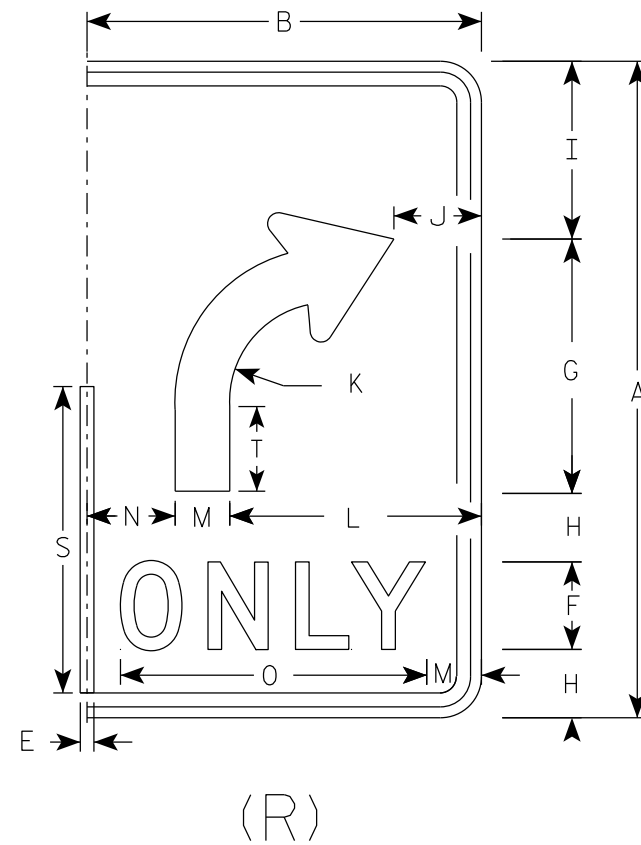
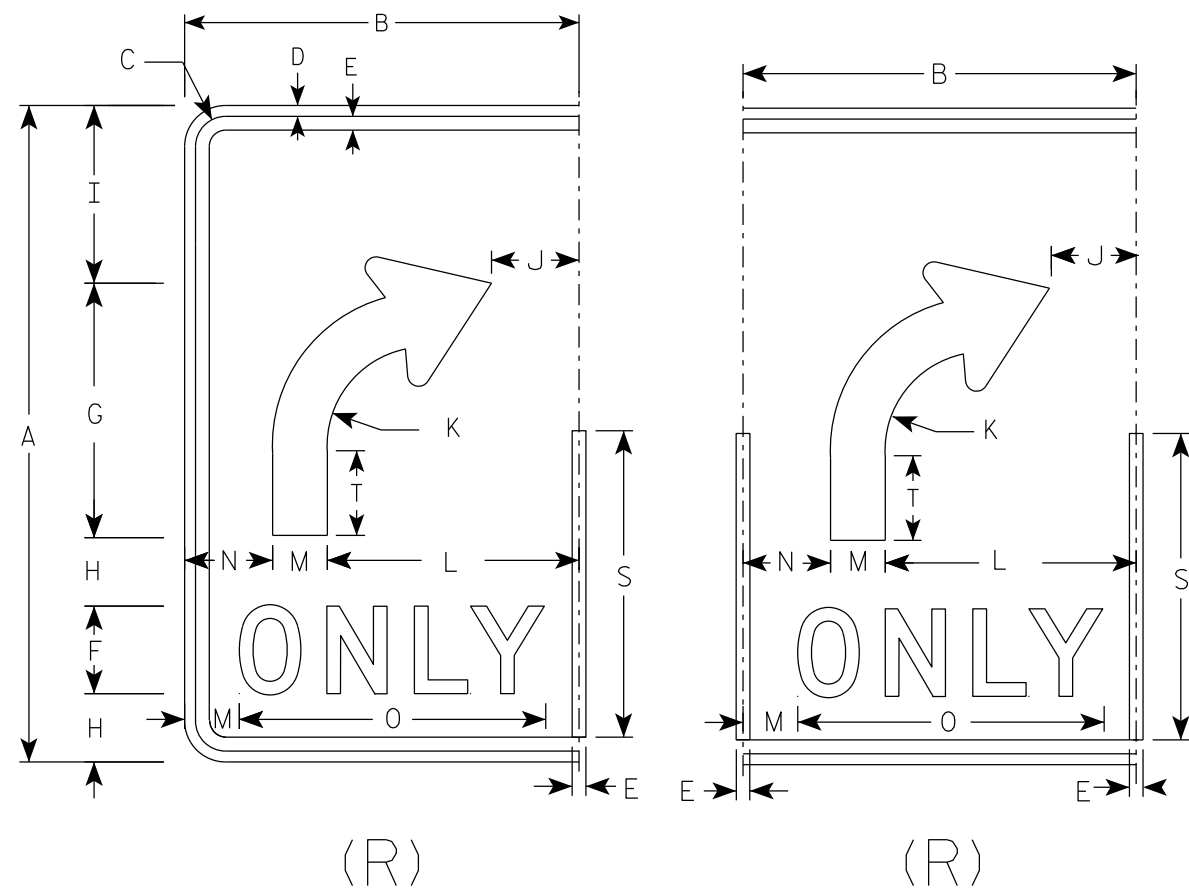
for State Traffic Engineer

DATE 5/21/19

PLATE NO. R3-8.1

NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
Background - White
Message - Black
- 3. Message Series - D



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 3⁄8	1⁄2	5⁄8	4	11 5⁄8	3 1⁄8	8 1⁄8	4	4 1⁄2	11 1⁄2	2 1⁄2	4	14	3⁄8	4 3⁄4	2 5⁄8	14	3 7⁄8							3.75
2M	30	18	1 3⁄8	1⁄2	5⁄8	4	11 5⁄8	3 1⁄8	8 1⁄8	4	4 1⁄2	11 1⁄2	2 1⁄2	4	14	3⁄8	4 3⁄4	2 5⁄8	14	3 7⁄8							3.75
3	36	24	1 3⁄8	1⁄2	5⁄8	5	14	3 1⁄2	9 3⁄4	6	5 3⁄8	15	3	6	17 5⁄8	1⁄2	5 3⁄4	3 1⁄8	16 3⁄4	4 5⁄8							6.0
4	48	30	2 1⁄4	3⁄4	1	6	18 5⁄8	5 1⁄8	13 1⁄8	6 1⁄8	7 1⁄4	18	4	8	21 3⁄4	5⁄8	7 5⁄8	4 1⁄4	22 3⁄8	6 1⁄4							10.0
5	48	30	2 1⁄4	3⁄4	1	6	18 5⁄8	5 1⁄8	13 1⁄8	6 1⁄8	7 1⁄4	18	4	8	21 3⁄4	5⁄8	7 5⁄8	4 1⁄4	22 3⁄8	6 1⁄4							10.0

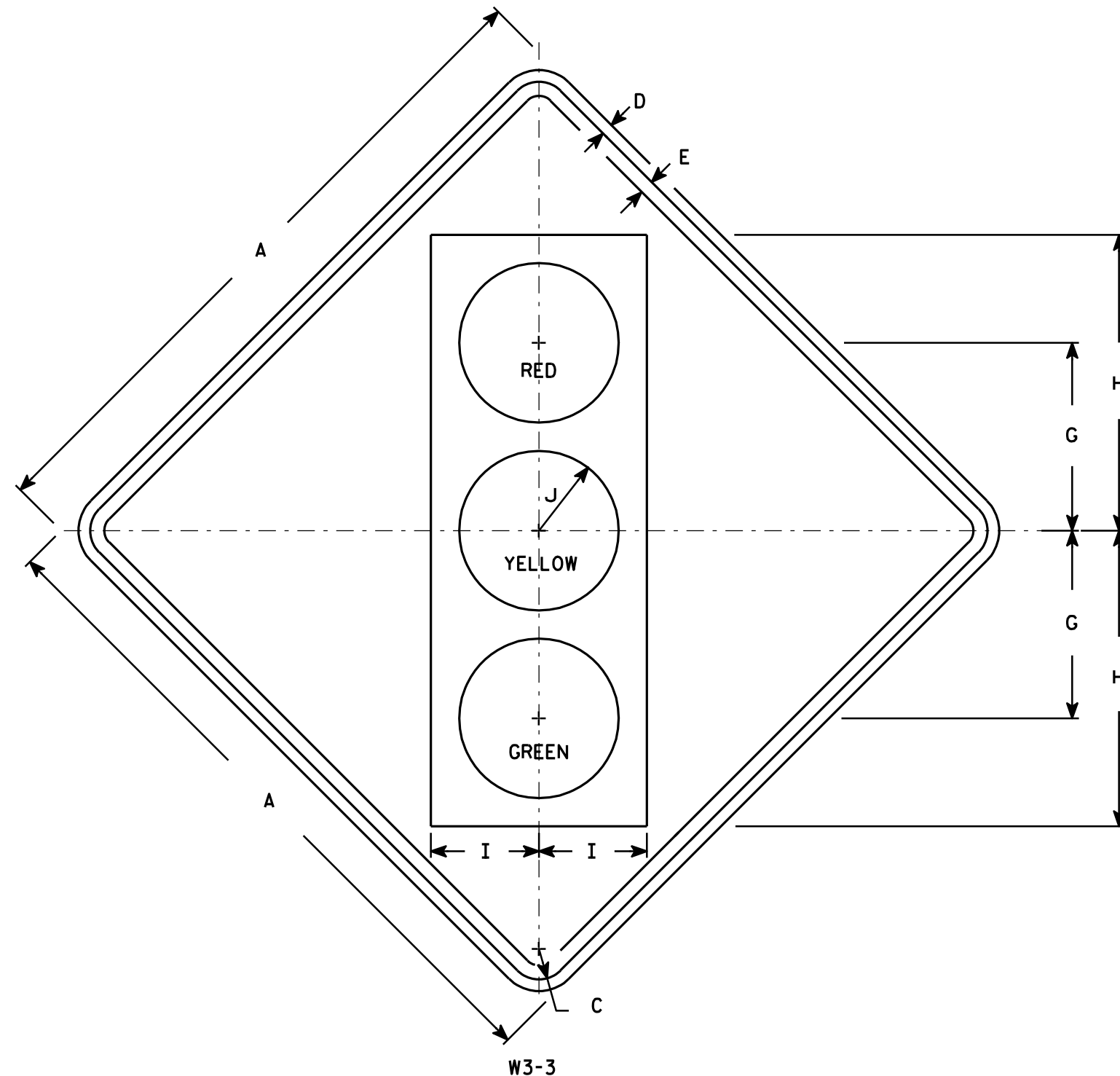
STANDARD SIGN

R3-8 (R) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1



NOTES

- Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - Yellow
Message - See Note 4
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- Symbol and border are non-reflective black.
Top circle - Type H Reflectorized Red
Center circle - Same as background
Bottom circle - Type H Reflectorized Green

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8		8 3/4	13 3/4	5	3 3/4																	6.25
2S	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
2M	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
3	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
4	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0
5	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0

STANDARD SIGN

W3-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
for State Traffic Engineer

DATE 6/7/10

PLATE NO. W3-3.11

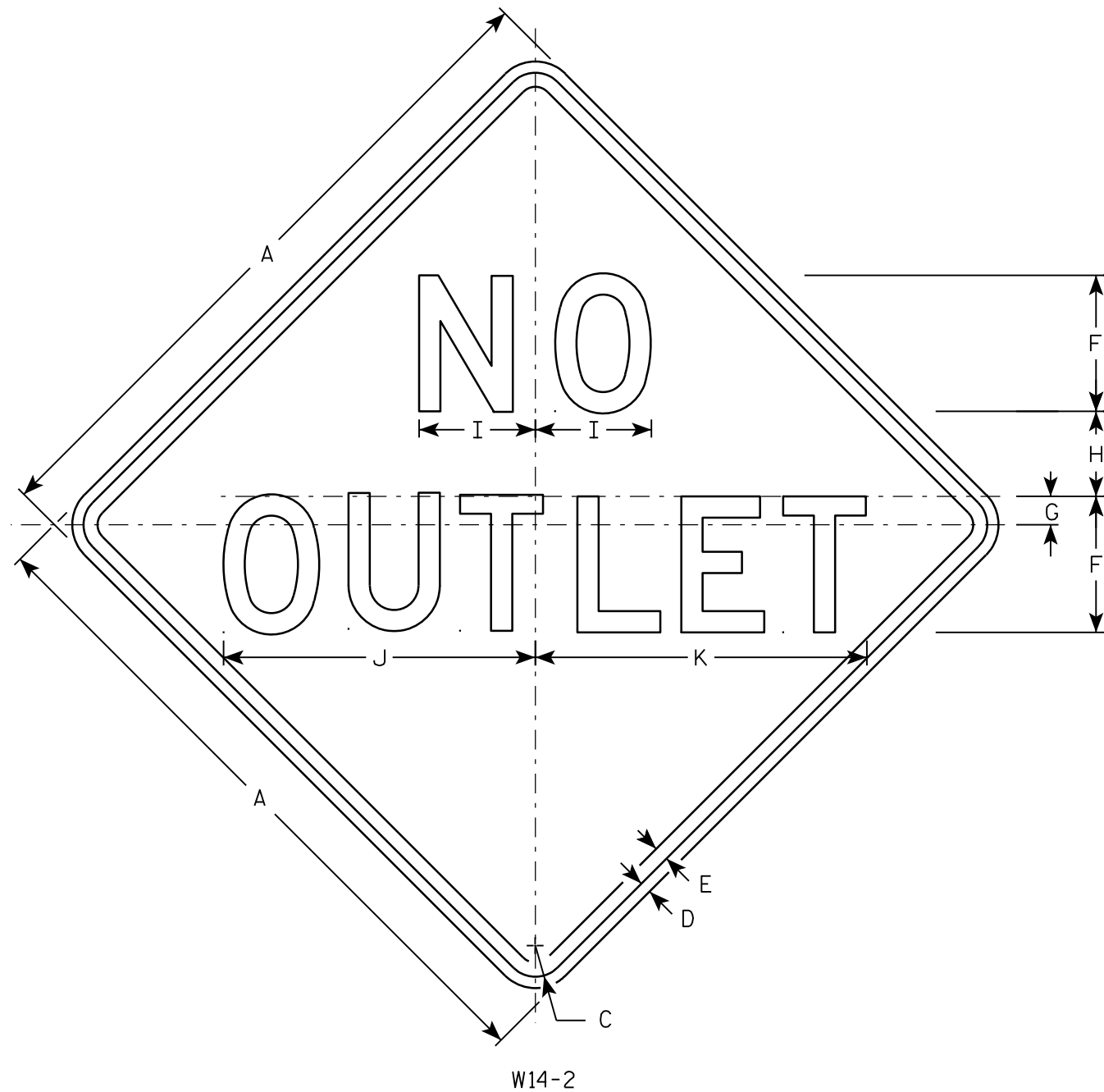
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 109

E



NOTES

- 1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
 - Background - YELLOW
 - Message - BLACK
- 3. Message Series - D
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	5	1	2 3/4	4 1/8	11 3/4	12 3/8																4.0
2S	30		1 3/8	1/2	5/8	6	1 1/4	3 3/4	5 1/8	13 3/4	14 5/8																6.25
2M	30		1 3/8	1/2	5/8	6	1 1/4	3 3/4	5 1/8	13 3/4	14 5/8																6.25
3	36		1 5/8	5/8	3/4	7	1 3/8	4 5/8	6	16 1/8	17 1/8																9.0
4																											
5																											

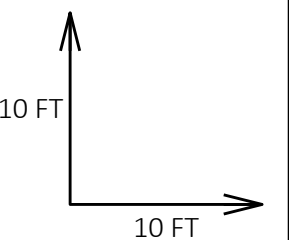
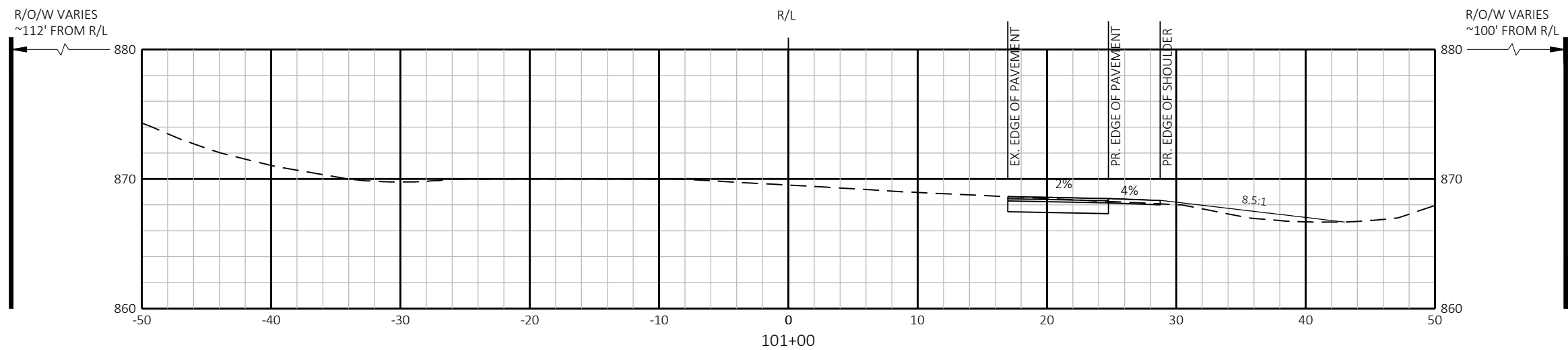
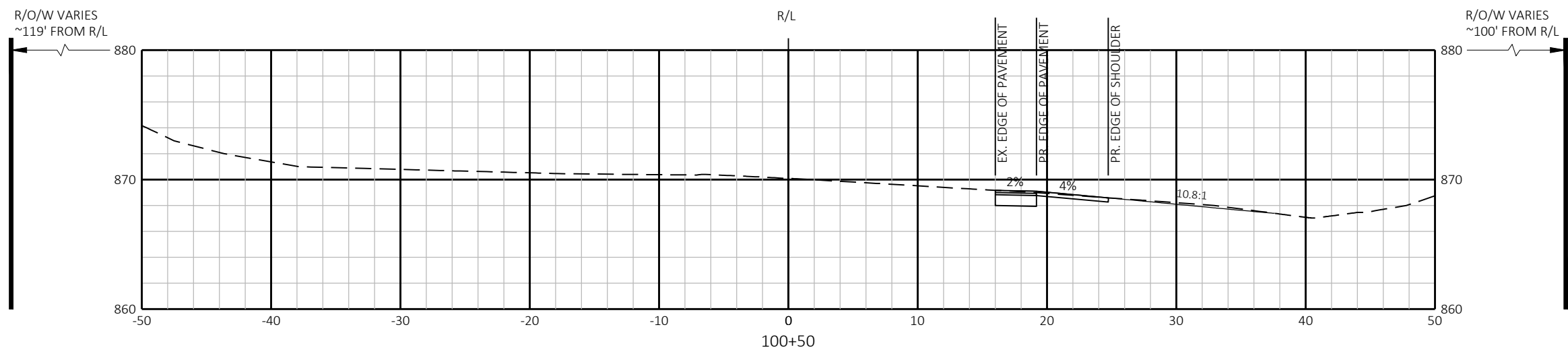
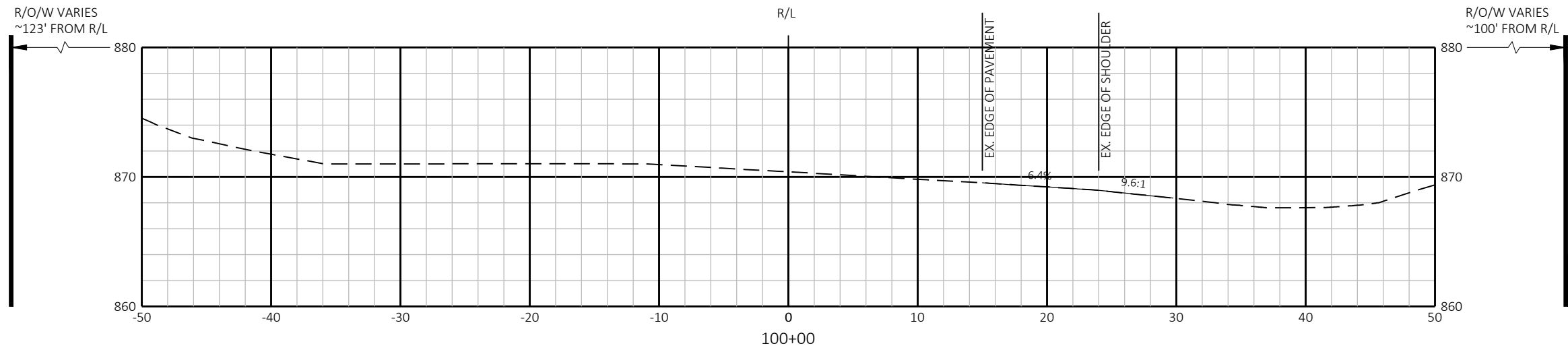
STANDARD SIGN

W14-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W14-2.3



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PROJECT NO: 1701341

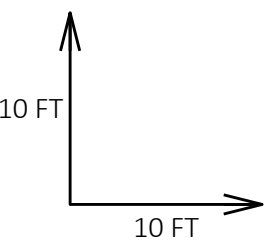
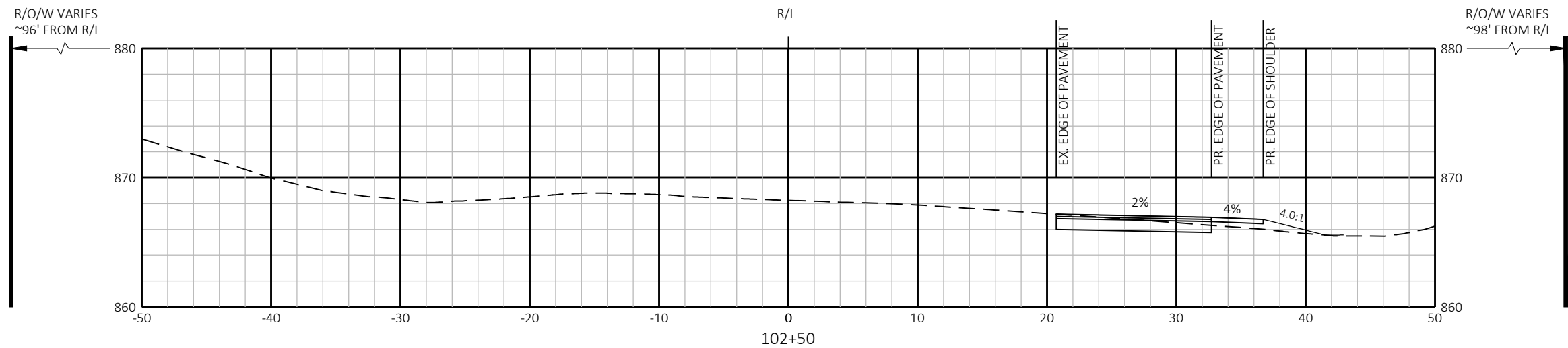
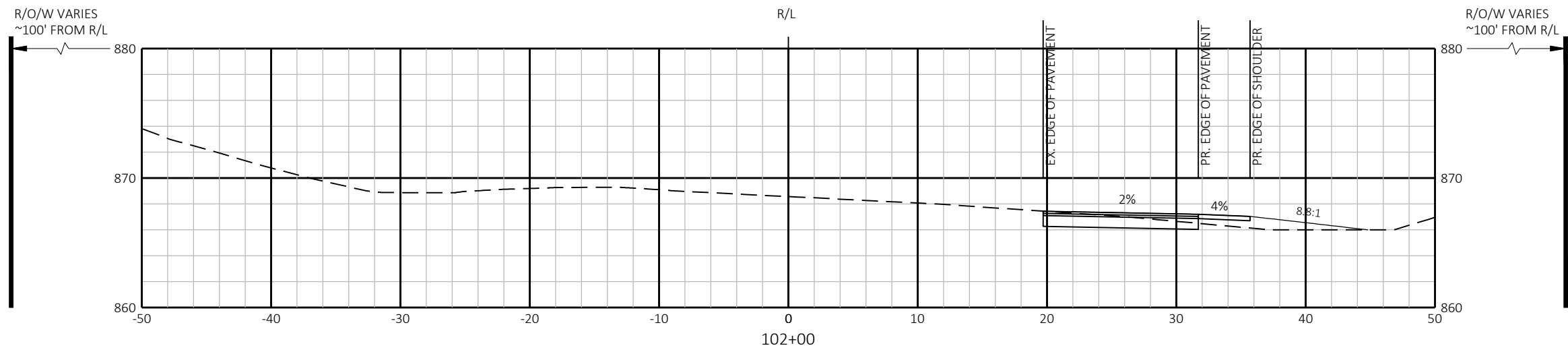
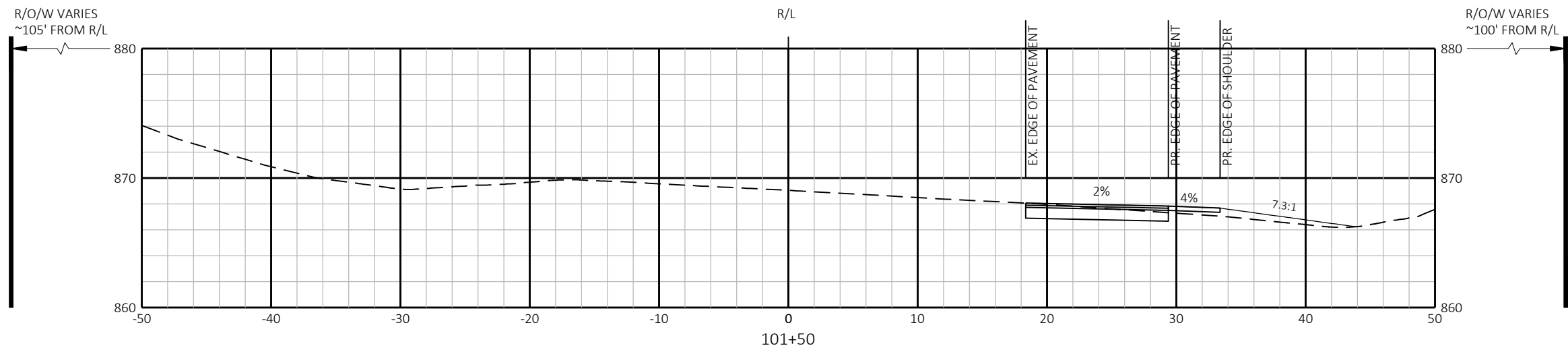
HWY: USH 12/18 & STH 134

COUNTY: DANE

CROSS SECTIONS: USH 12/18

SHEET 111

E



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PROJECT NO: 1701341

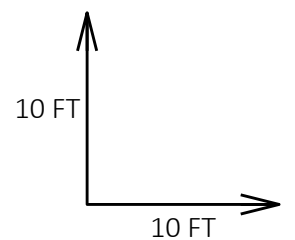
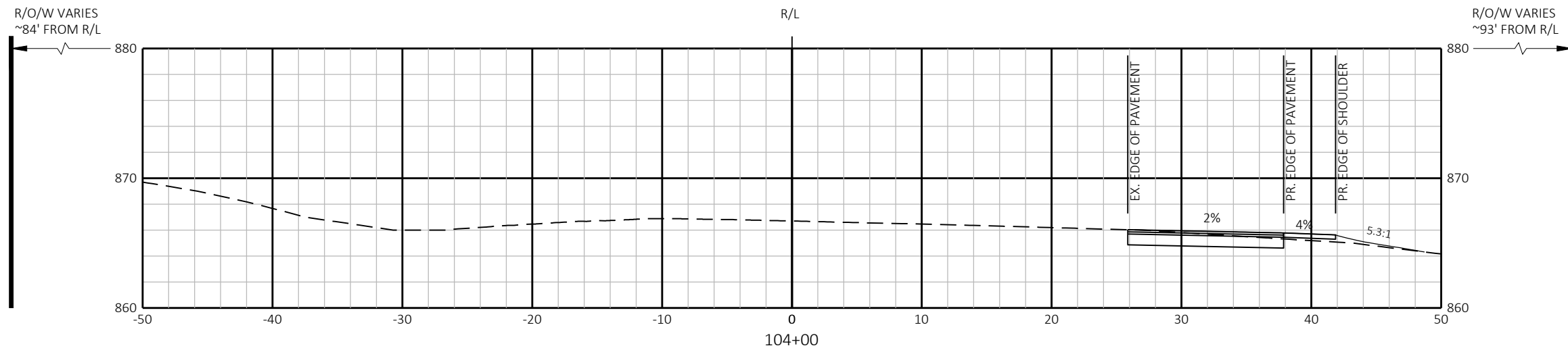
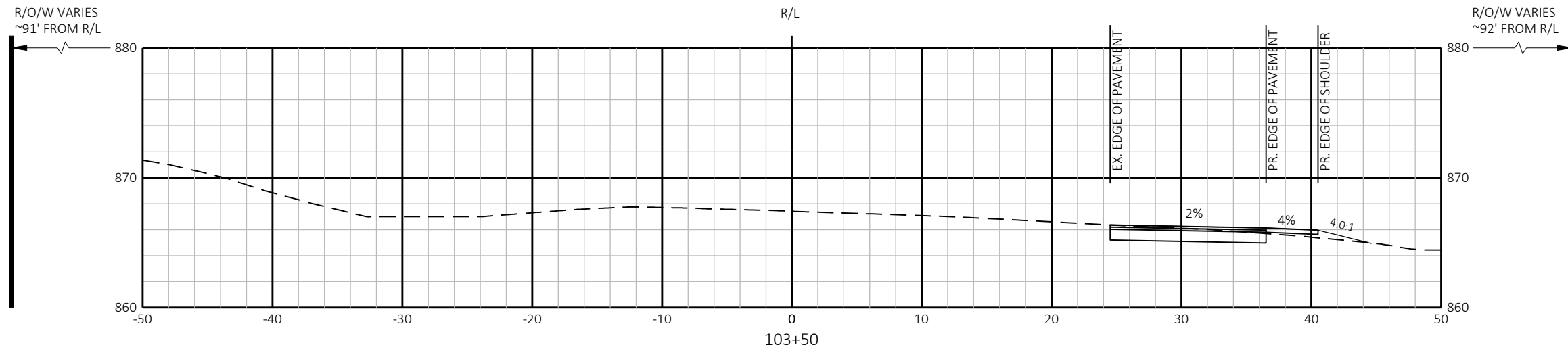
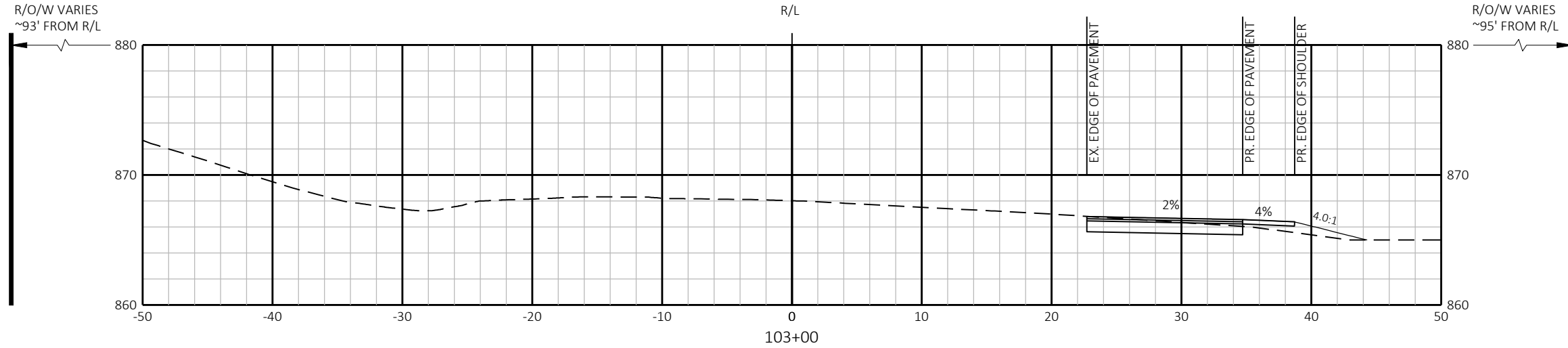
HWY: USH 12/18 & STH 134

COUNTY: XXX

CROSS SECTIONS: USH 12/18

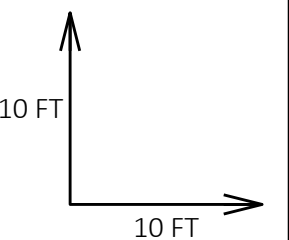
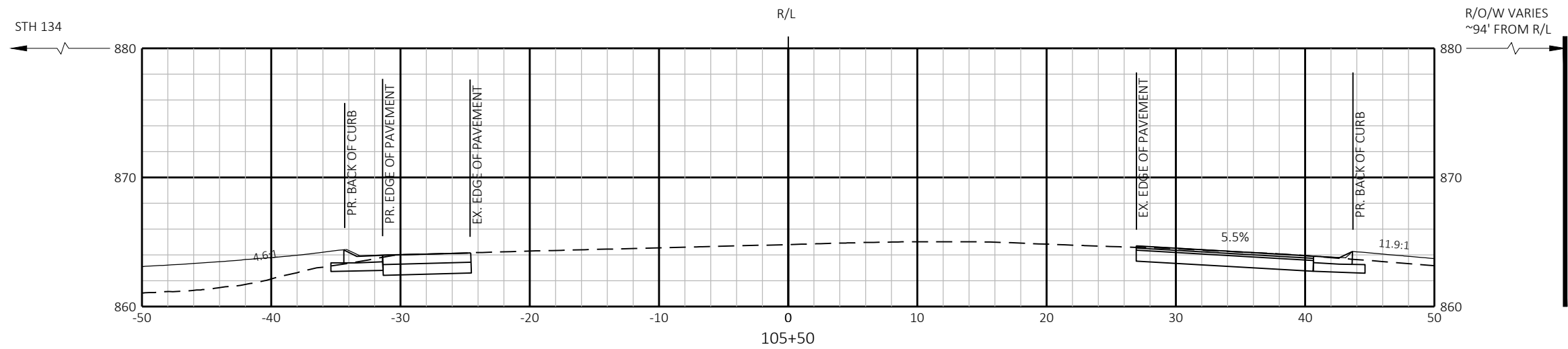
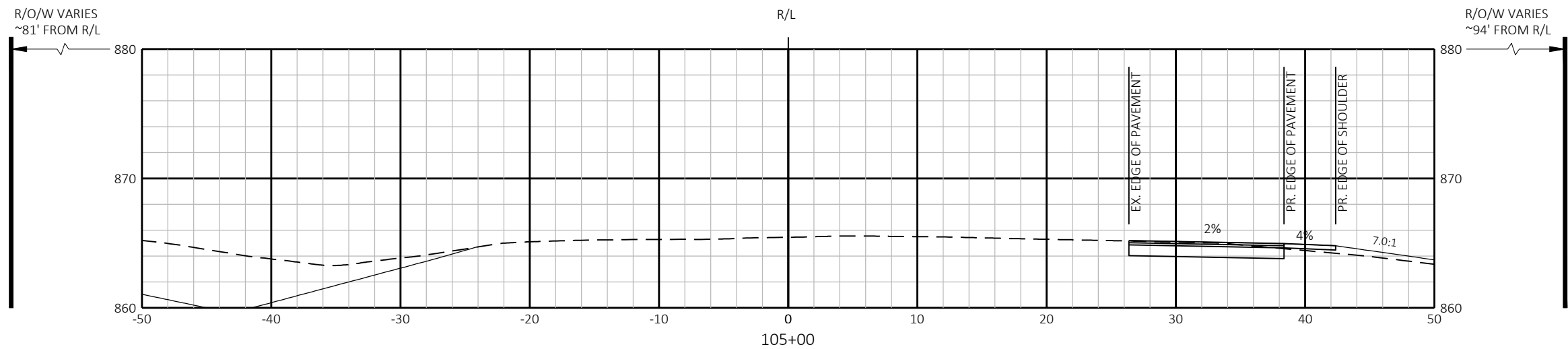
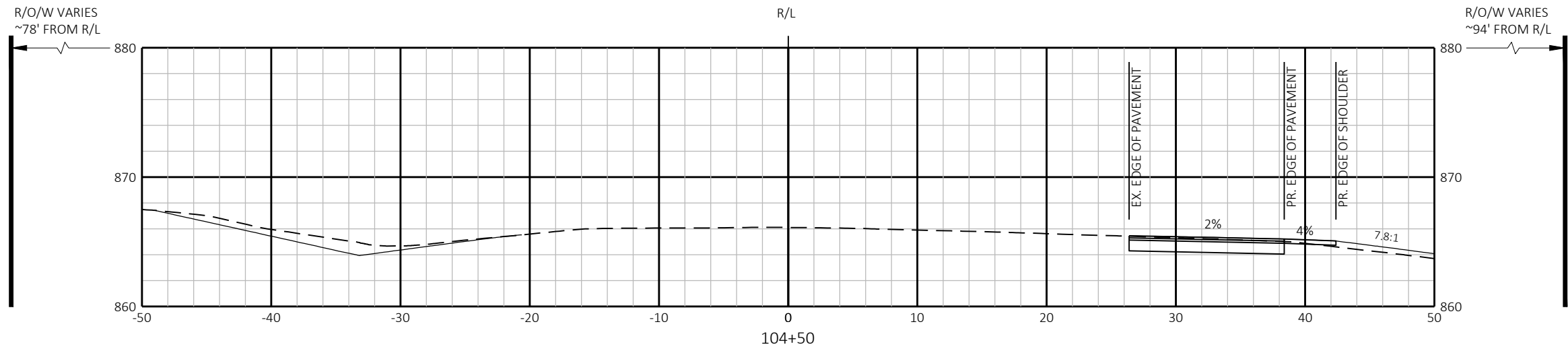
SHEET 112

E



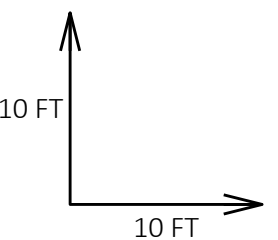
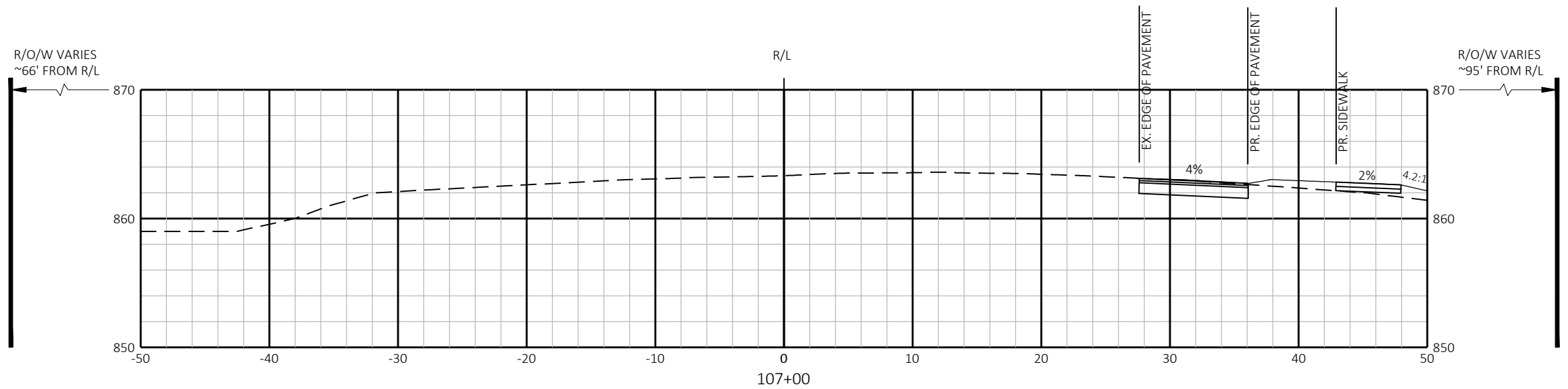
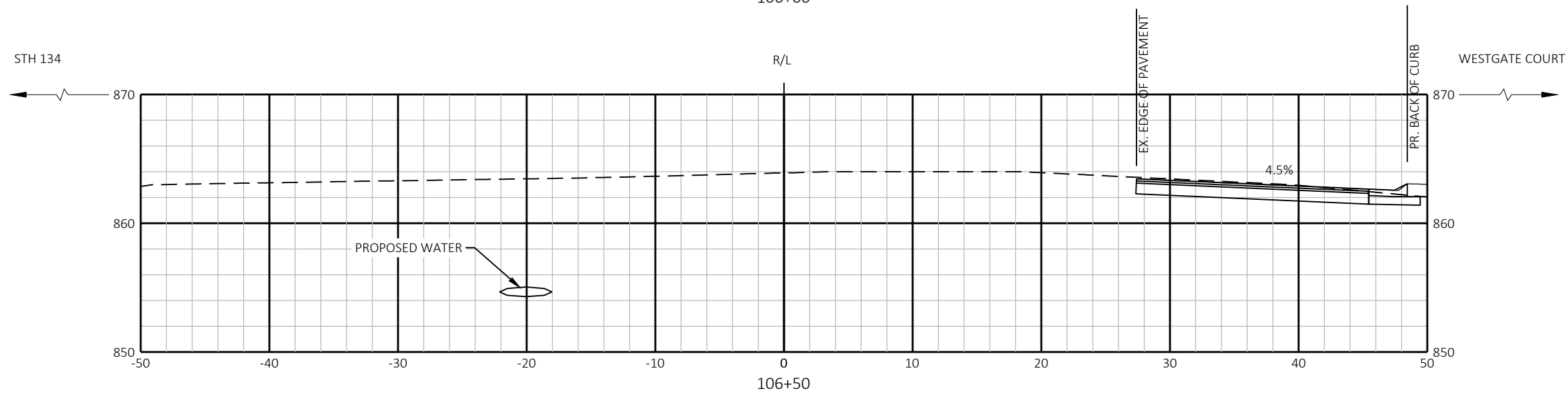
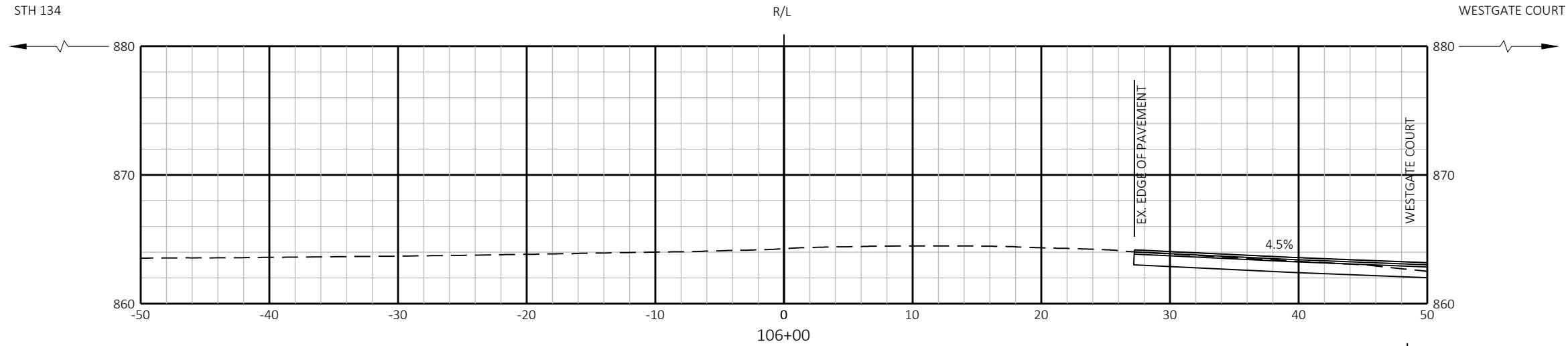
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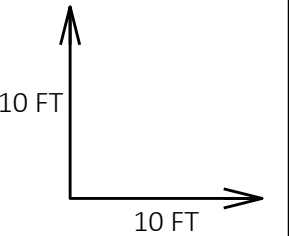
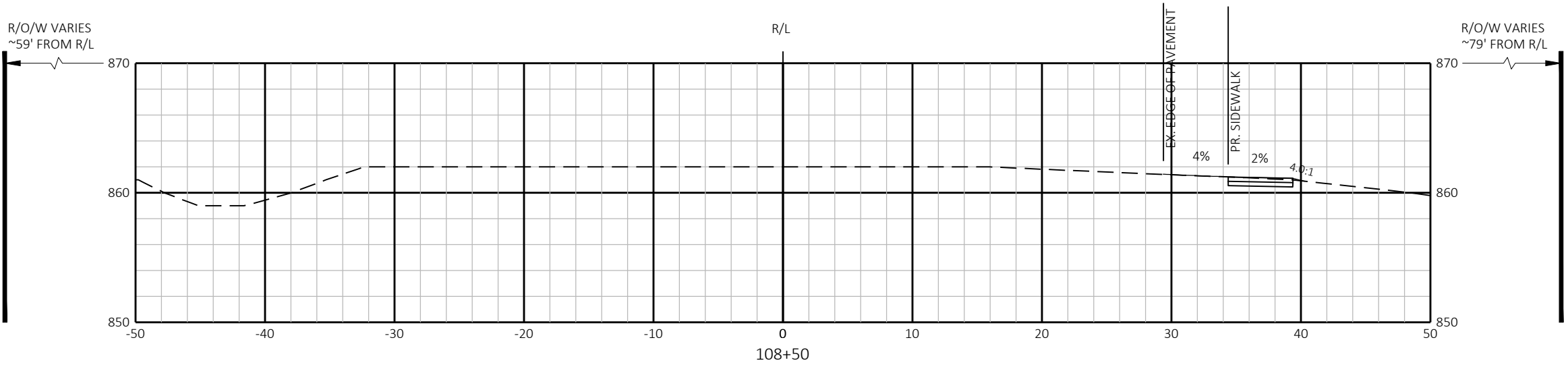
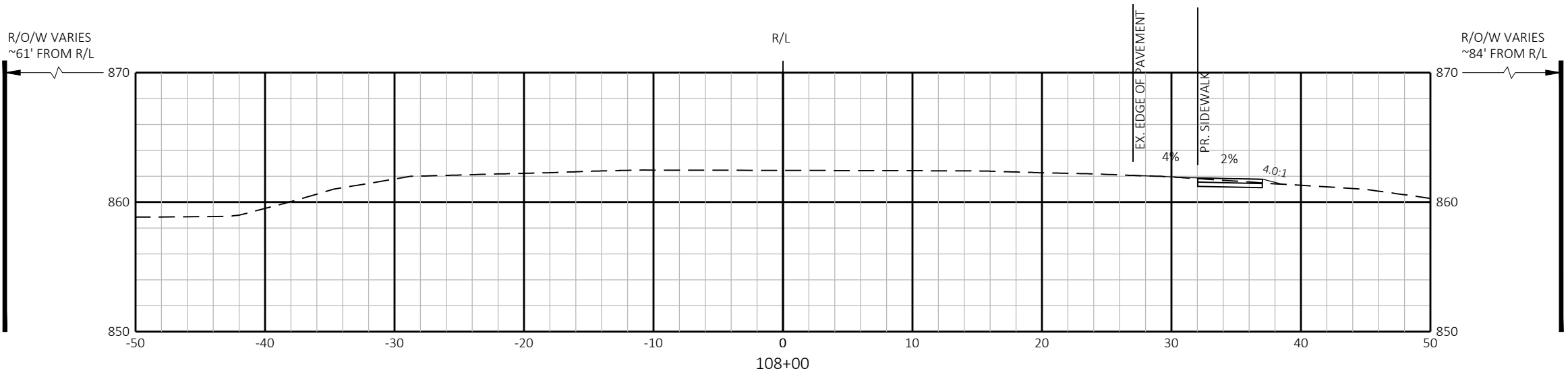
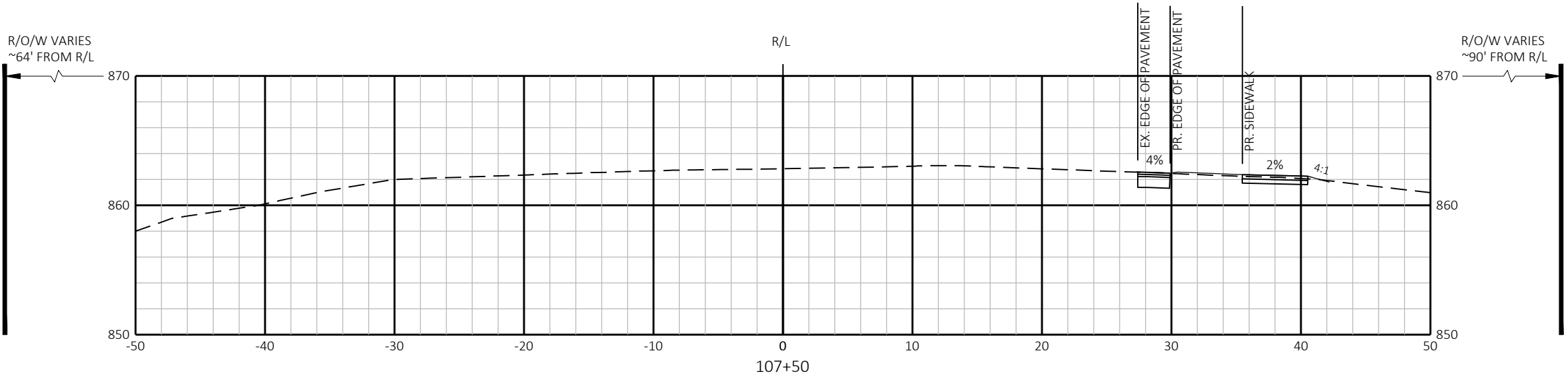
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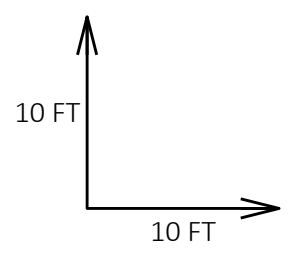
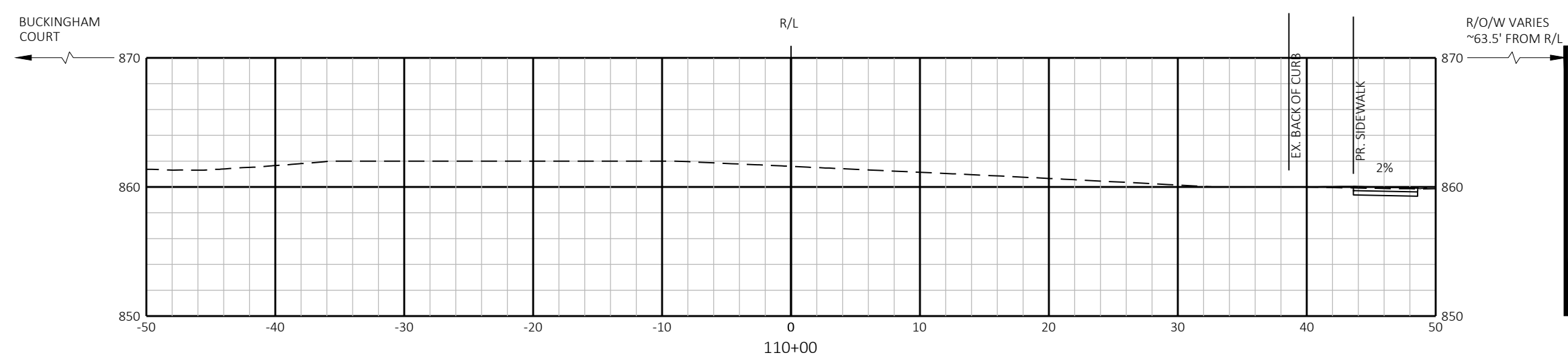
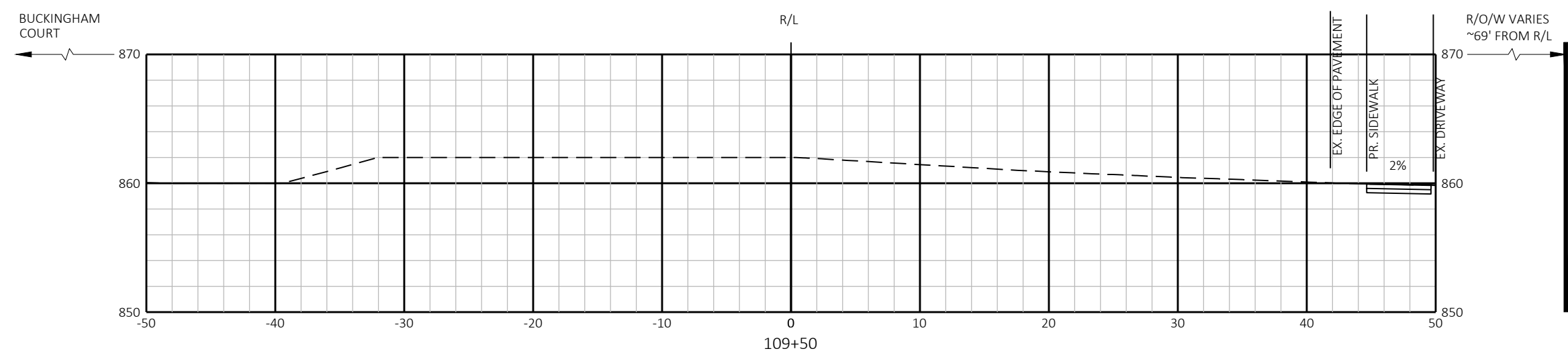
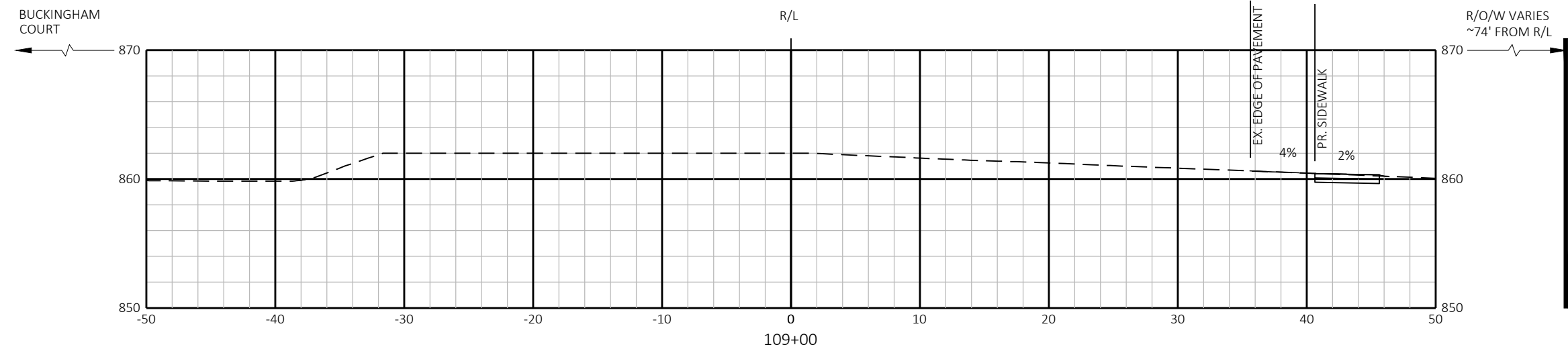
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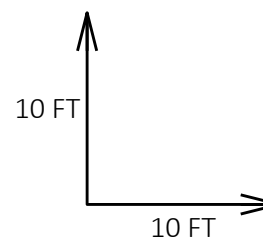
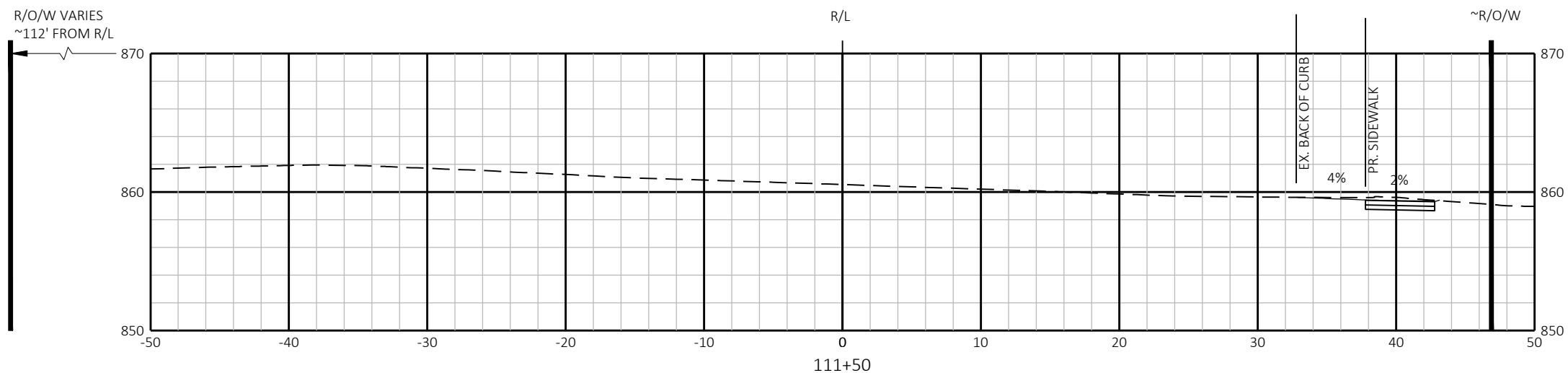
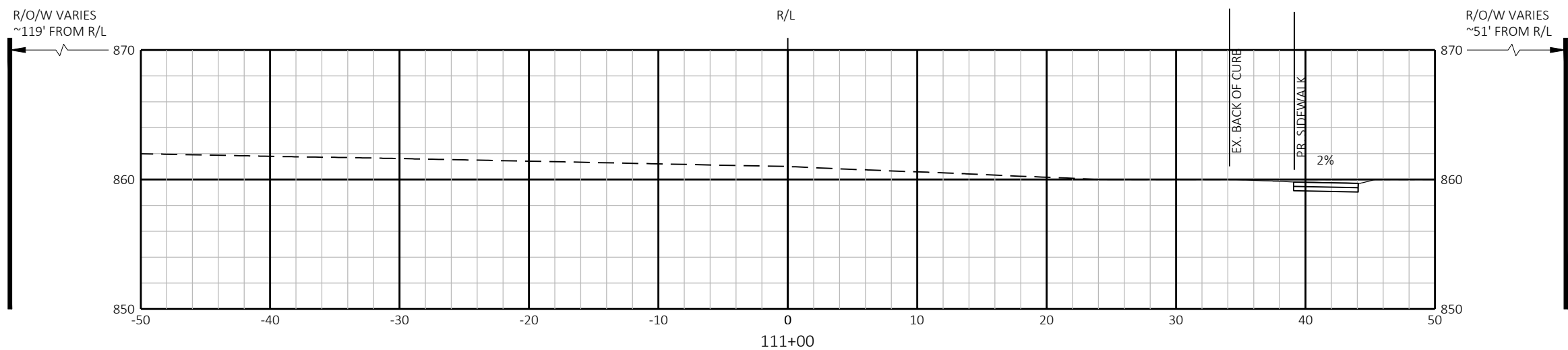
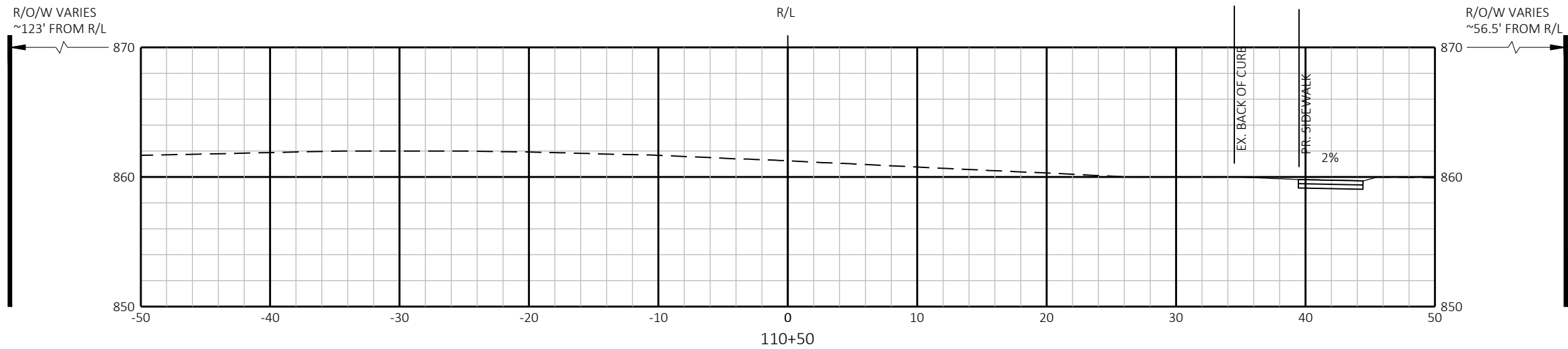
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PROJECT NO: 1701341

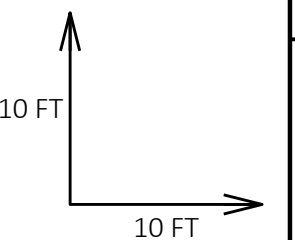
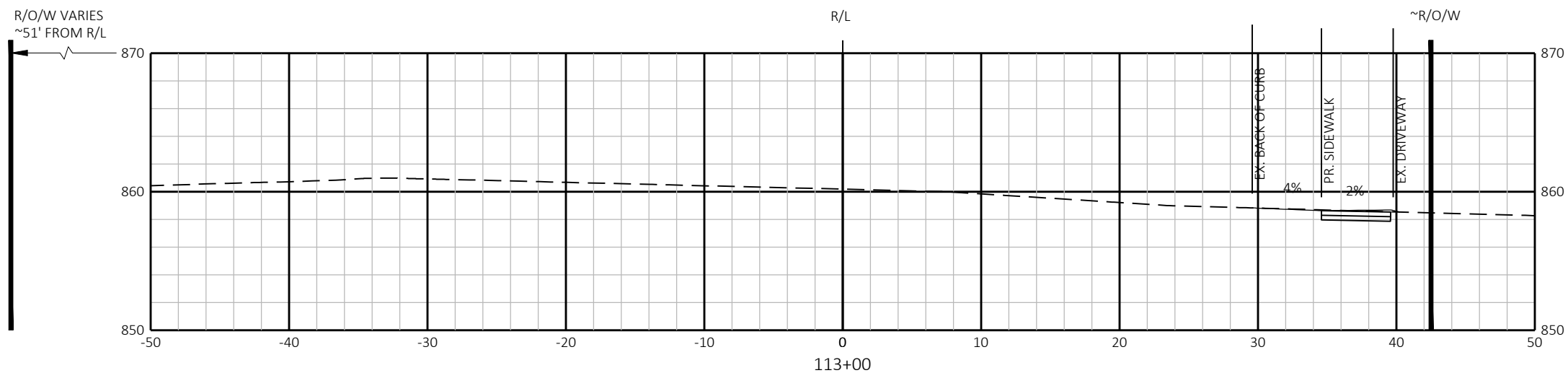
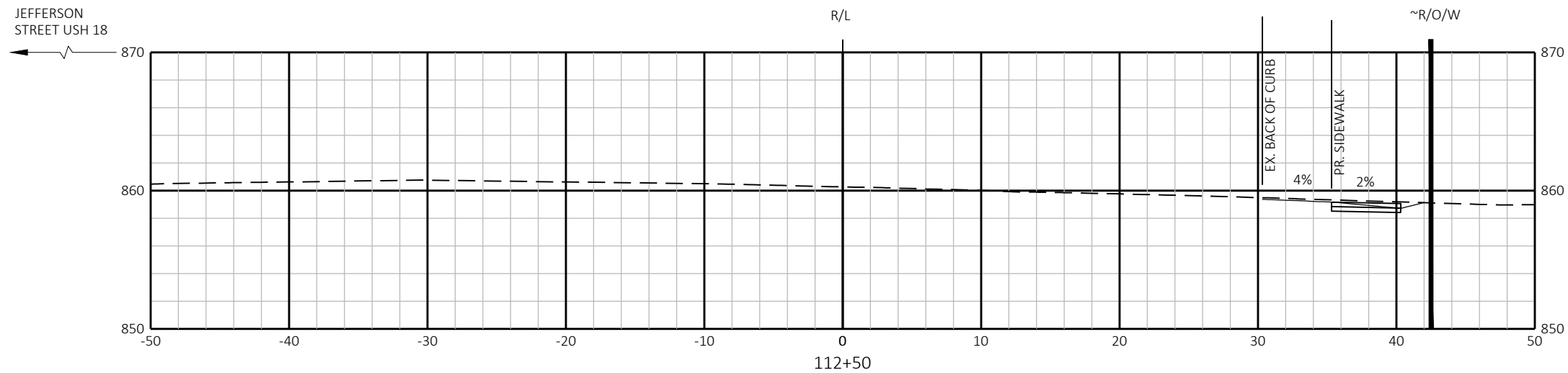
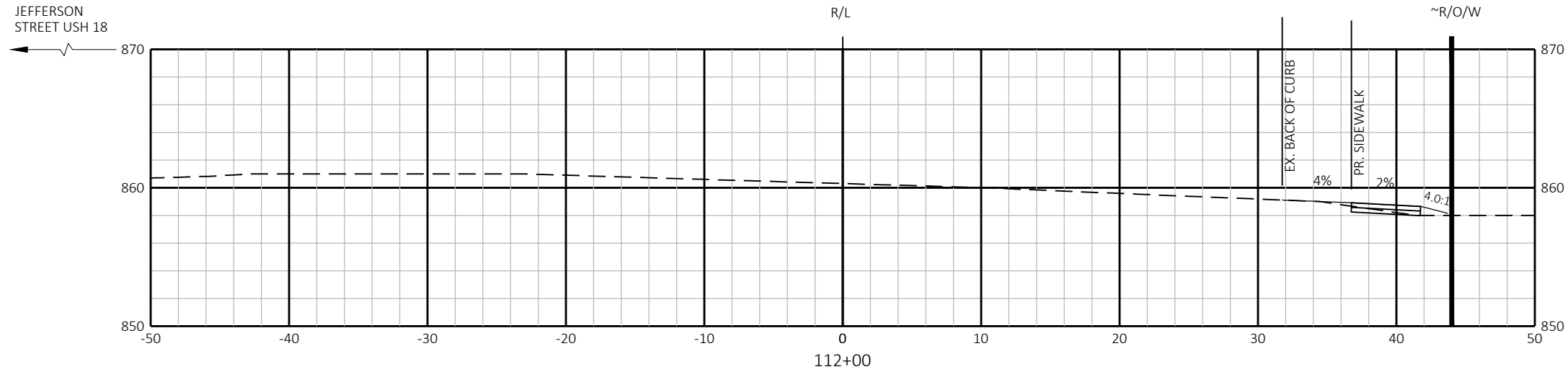
HWY: USH 12/18 & STH 134

COUNTY: DANE

CROSS SECTIONS: USH 12/18

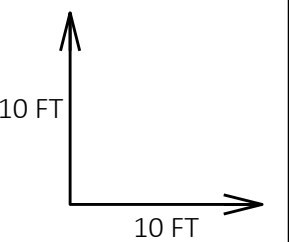
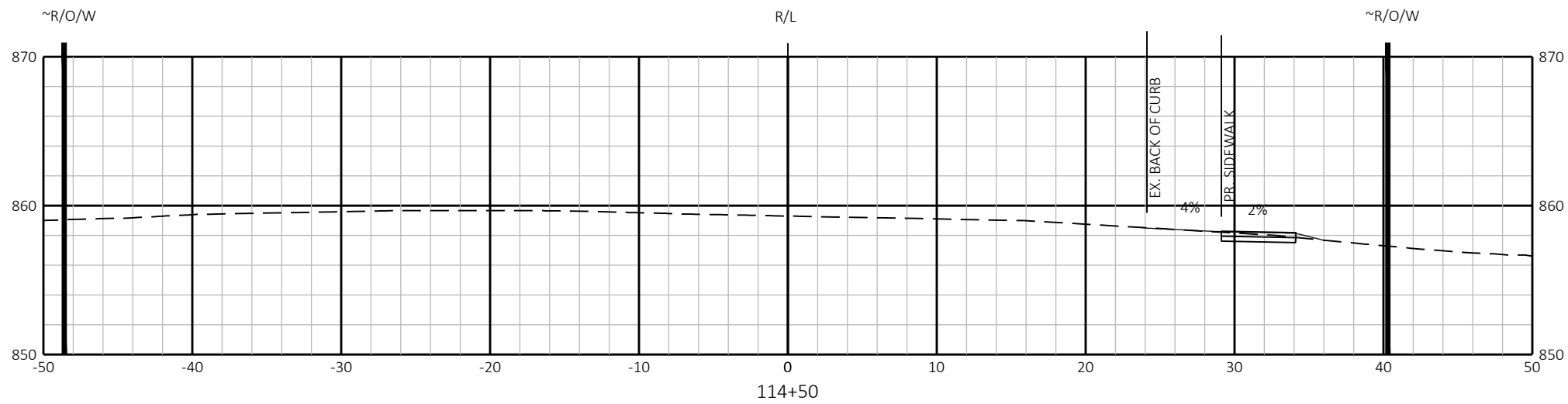
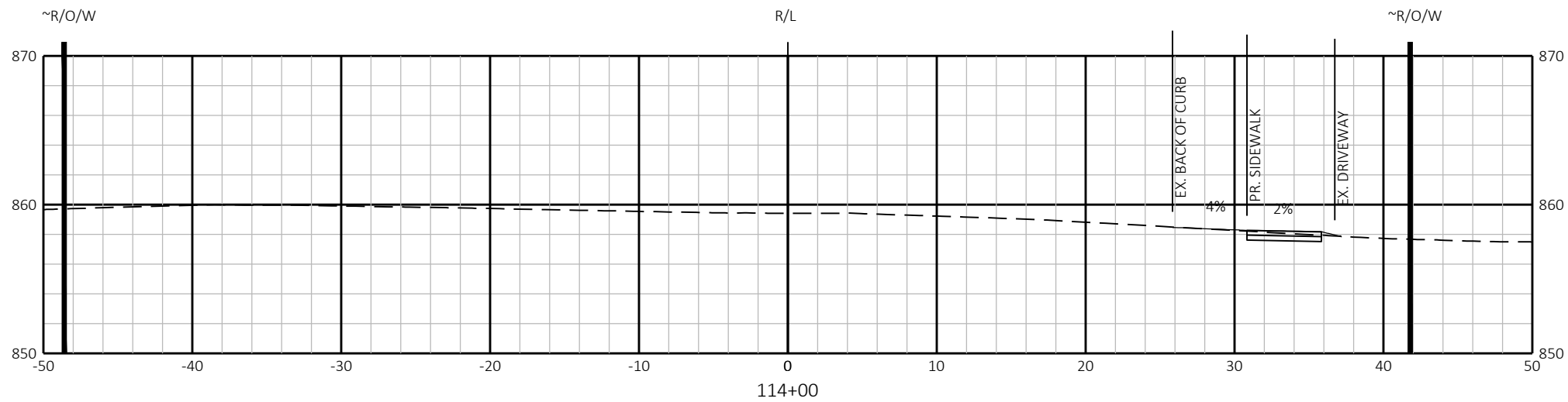
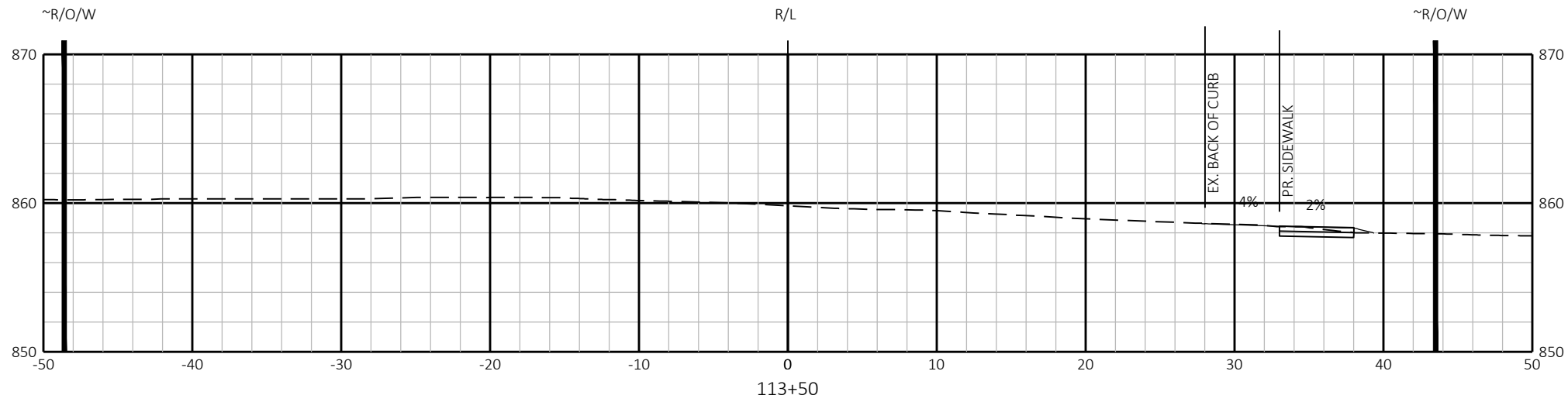
SHEET 118

E



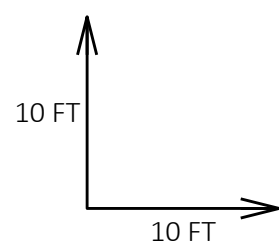
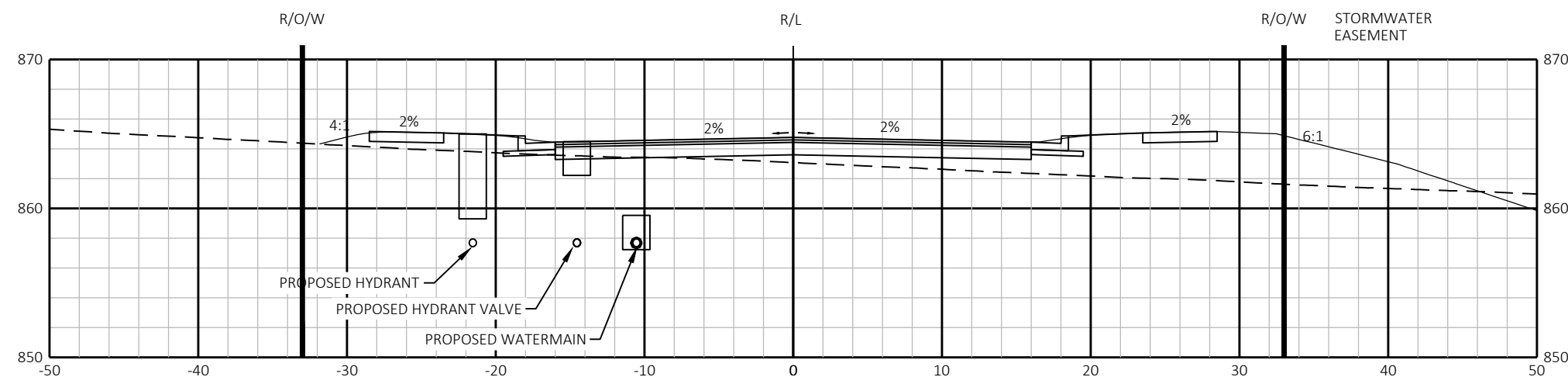
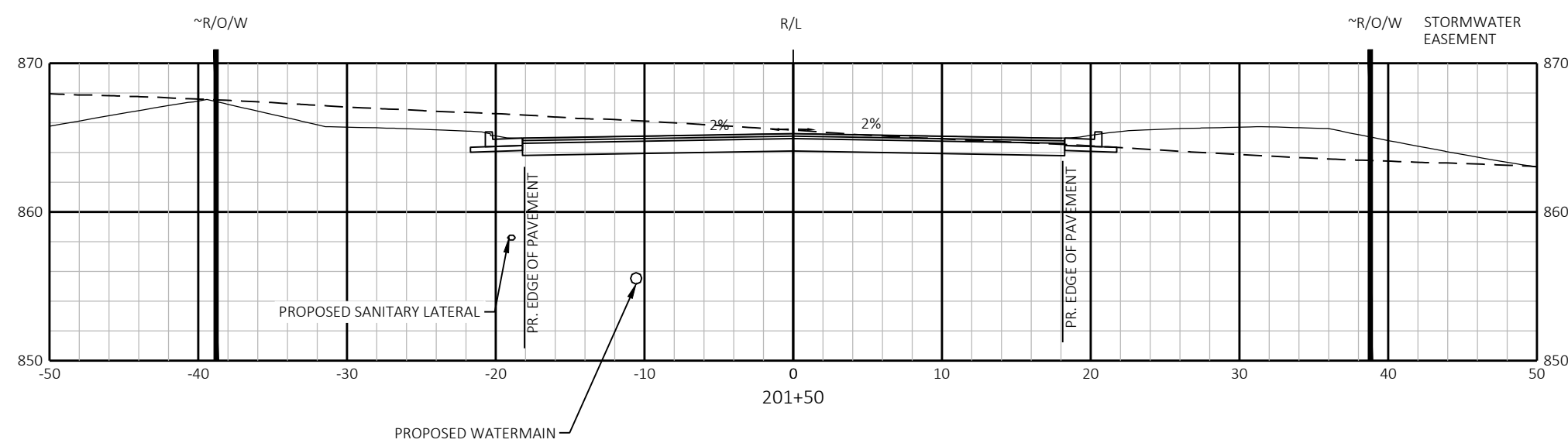
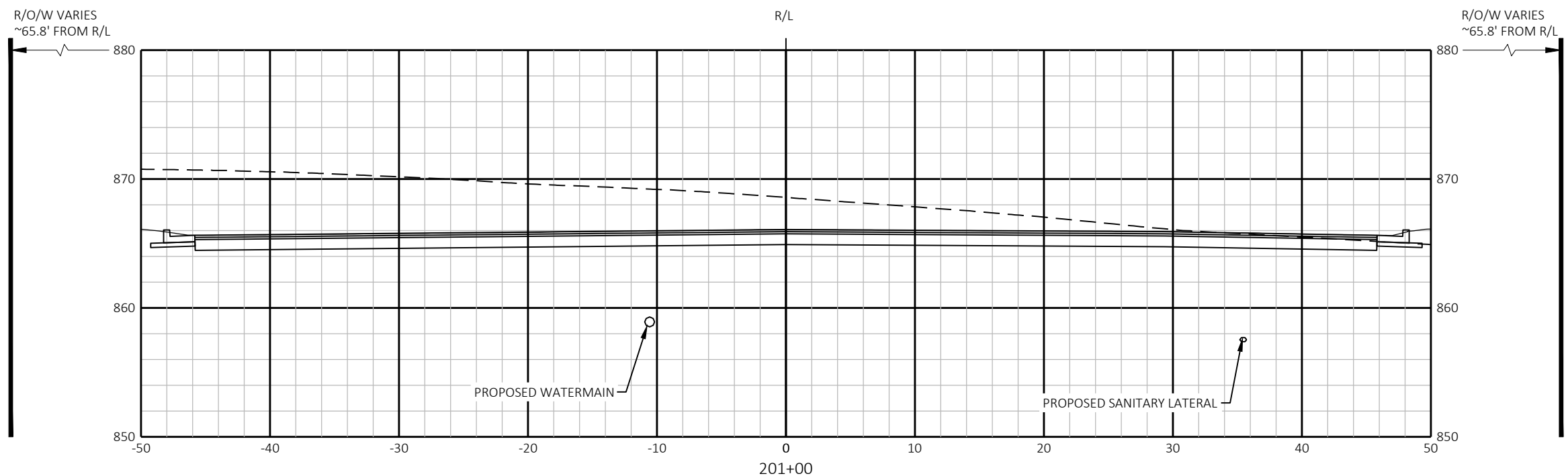
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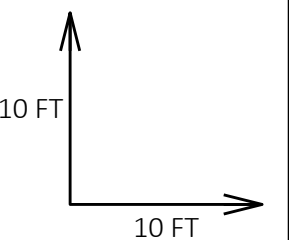
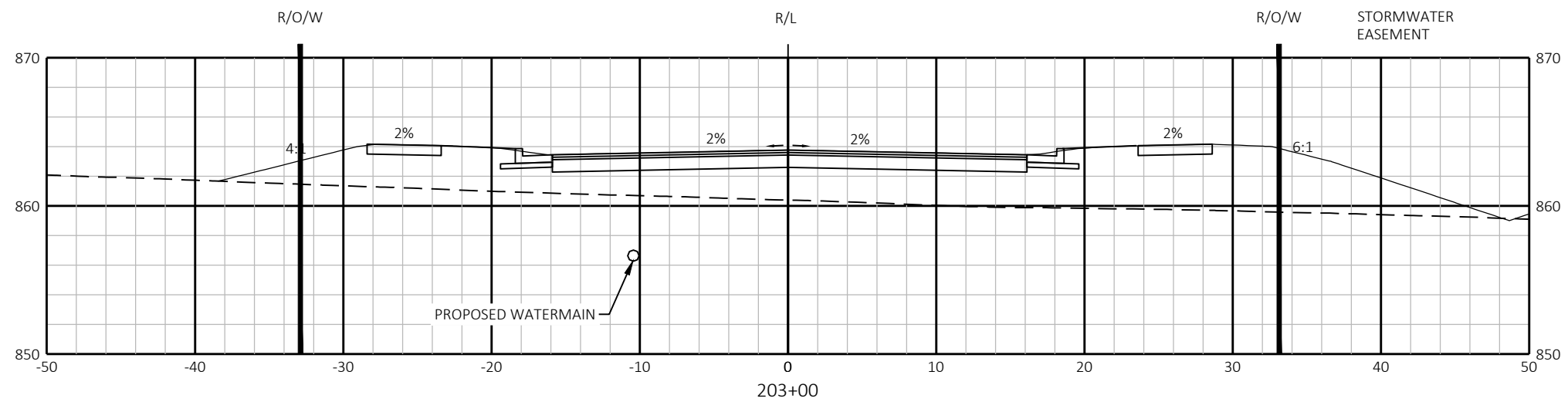
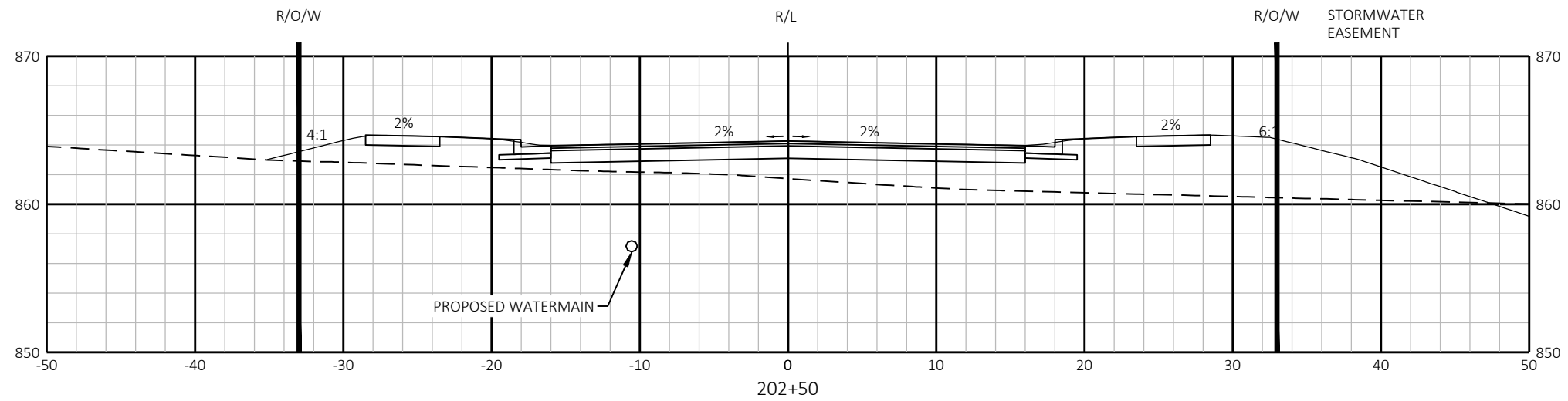
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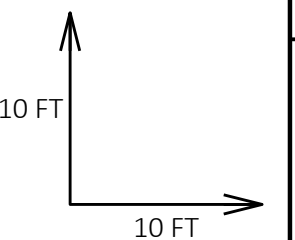
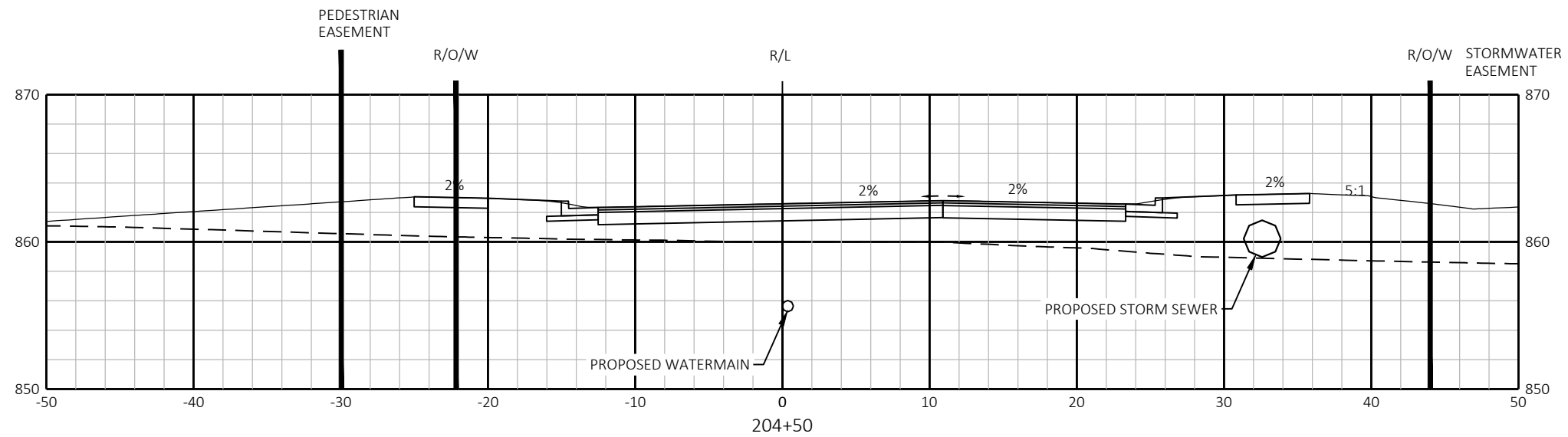
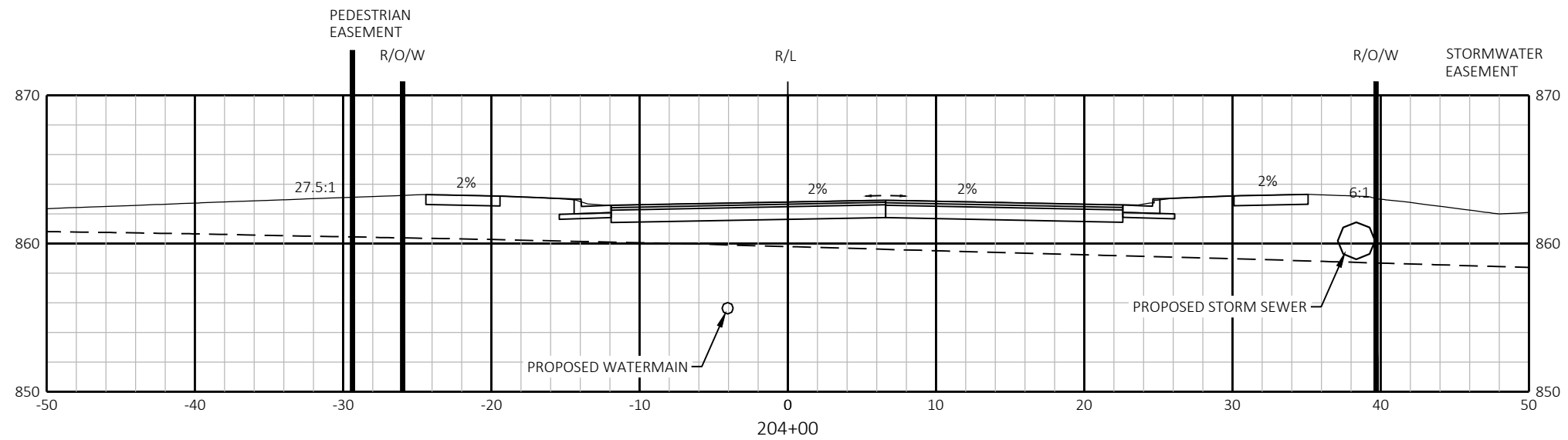
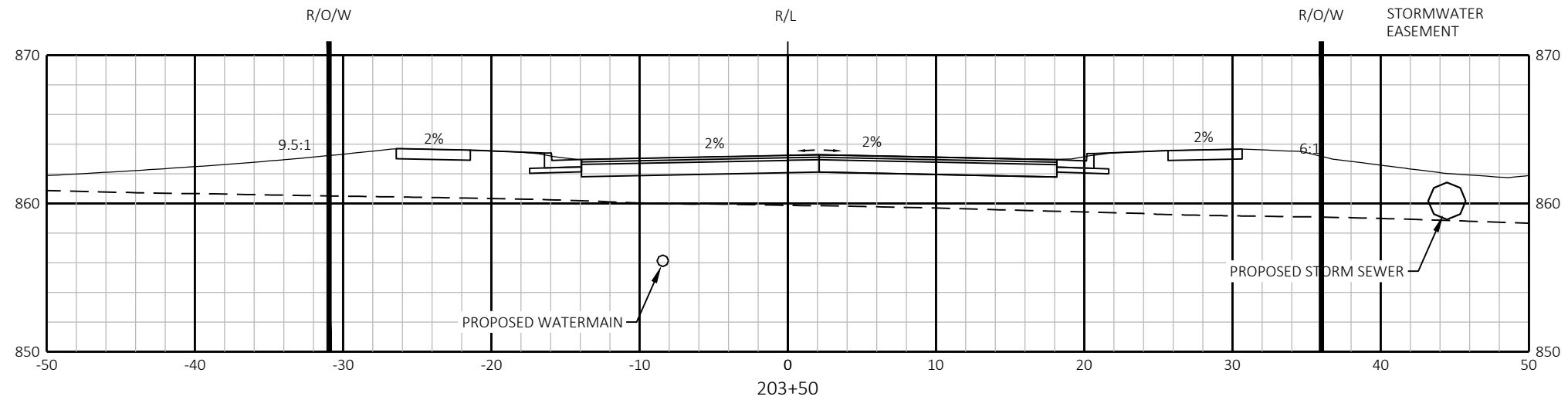
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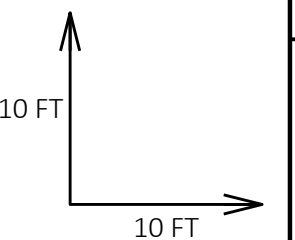
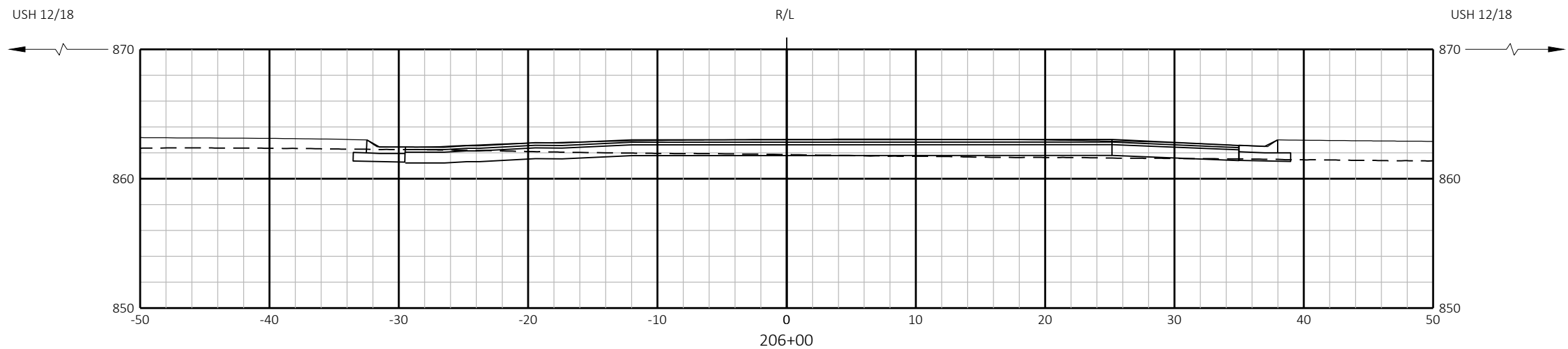
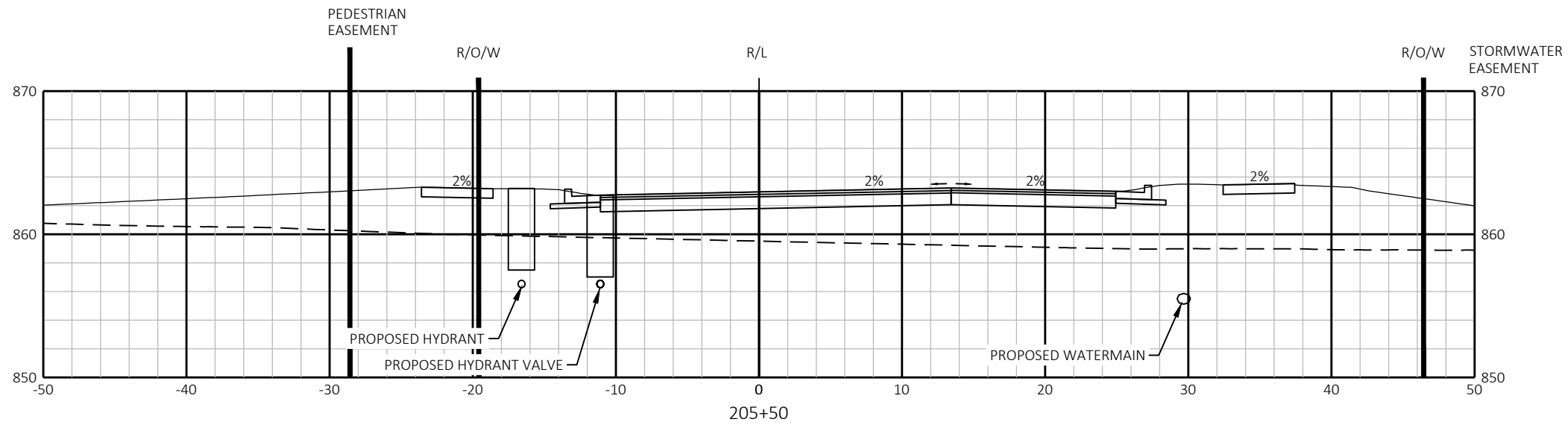
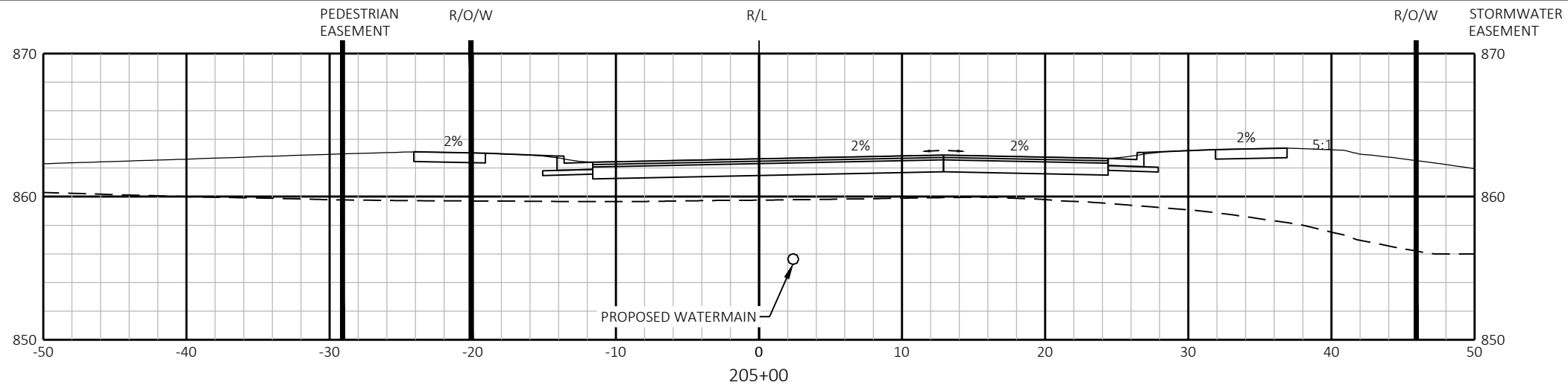
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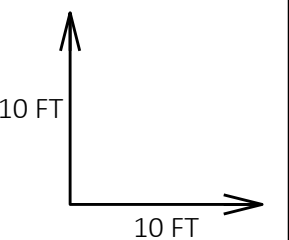
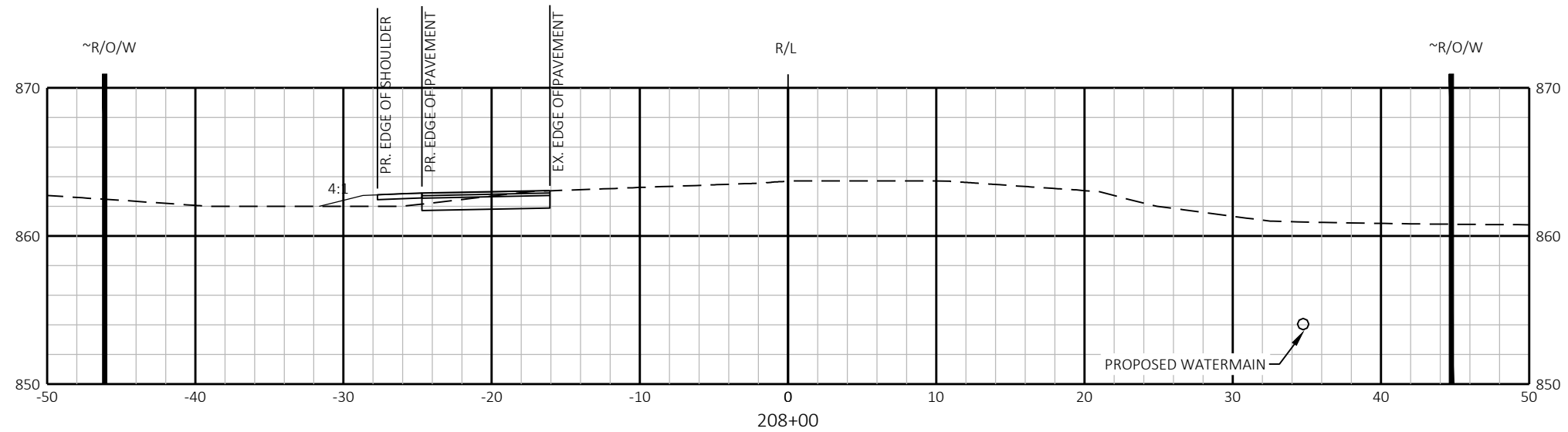
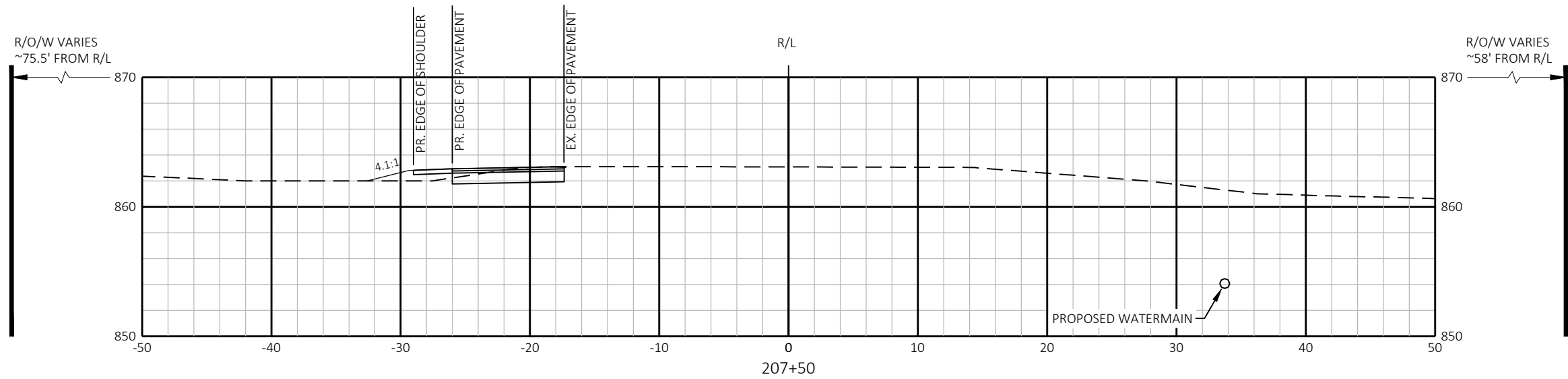
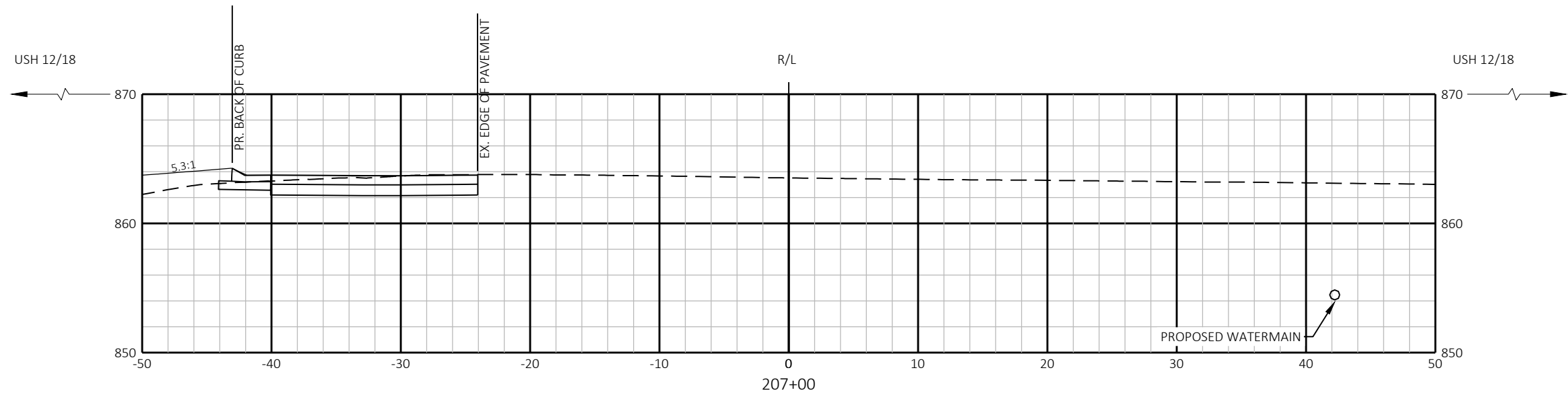
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