



Anoka County
MINNESOTA

Respectful, Innovative, Fiscally Responsible

ANOKA COUNTY TRANSPORTATION DIVISION

1440 BUNKER LAKE BLVD NW

ANDOVER, MN 55304

763-324-3176

highwaypermits@co.anoka.mn.us

PERMIT NUMBER

23-216

RIGHT OF WAY

COMMERCIAL ACCESS

CSAH 17

APPLICATION FOR PERMIT FOR INSTALLATION OF UTILITIES OR PLACING OBSTRUCTIONS ON THE COUNTY HIGHWAY SYSTEM
ALL APPLICANTS MUST BE REGISTERED PRIOR TO PERMIT APPROVAL

APPLICANT NAME **FOREST LAKE CONTRACTING, INC.**

CONTACT PERSON **CHRIS BROWN**

ADDRESS **14777 LAKE DRIVE**

CITY **FOREST LAKE, MN 55025**

PHONE NUMBER **651-464-4500**

EMAIL **chris@forestlakecontracting.com**

COMPANY OR INDIVIDUAL PERFORMING WORK **FOREST LAKE CONTRACTING, INC.**

CONTACT PERSON **JOE MONETTE**

EMAIL **joe@forestlakecontracting.com**

PERMIT WORK TO START **05/10/2023**

PERMIT WORK TO BE COMPLETED **07/31/2023**

DURATION OF JOB **2 months**

ARE YOU BEING ASKED TO RELOCATE DUE TO A COUNTY PROJECT? **No**

ANOKA COUNTY PROJECT NUMBER

ADDRESS OF WORK SITE **131st & Lexington**

CITY **Blaine**

METHOD OF INSTALLATION/CONSTRUCTION **Reconstruct an intersection with signal system**

NATURE OF WORK **Reconstruct intersection for the City of Blaine and add a signal system**

Traffic control setup on CSAH 17 - per approved plan on file at ACHD

SURFACE TO BE DISTURBED

SITE PLAN

If the roadway is encroached, you must attach a traffic control plan and/or reference the most current version of the Minnesota Temporary Traffic Control Field Manual.

- DITCH
- GRAVEL
- BITUMINOUS
- CONCRETE
- NONE



Per approved plan on file at ACHD

DEPTH FROM SURFACE **36"**
(60" MINIMUM UNDER COUNTY ROADS)

SIZE AND KIND OF PIPE/CABLE **15" RCP**

NUMBER OF EXCAVATIONS **1**

SIZE OF EXCAVATIONS **200 x 600 x 1'**

LOCATION OF EXCAVATIONS **131st and Lexington intersection**
(Specific written descriptions of excavations)



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GENERAL INFORMATION

One permit must be approved for each county road on which work will be performed prior to any work within the right of way by any utility/contractor. Emergency conditions which threaten the safety of the public and require immediate repair are exceptions to this rule. Under those circumstances, the utility/contractor is permitted to begin and/or complete the necessary repairs. The Anoka County Transportation Division (ACTD) shall be notified of emergency repairs as soon as feasible and a written permit is to be completed within two business days of occurrence.

A license-permit bond is generally required of the contractor as part of the registration process, the amount of which will be determined by the nature of the utility work.

A sketch or drawing shall accompany each permit application which will show the location of the proposed work/utility with reference to the county highway center line and right of way line. A complete set of plans is required for all sewer/water projects.

It shall be the responsibility of the applicant to determine which of the special conditions apply to each permit.

ACTD reserves the right to revoke any utility permit and halt work, if, upon inspection of any job site, the special conditions are not met, and/or a hazard exists for the applicant or public safety is threatened. **The failure to comply with the terms and conditions of any applicable Federal, State, Regional, and local laws, rules and regulations, including any provision of Anoka County's Right-of-Way Ordinance shall be cause for immediate revocation of a permit.**

The applicant shall notify ACTD immediately upon completion of project so that the ACTD can inspect the site to determine if restoration has been satisfactorily completed.

The undersigned hereby accepts the terms and conditions of this permit and the regulations of Anoka County, and agrees to fully comply therewith to the satisfaction of the ACTD. The county of Anoka, its officials, employees, and agents, shall be held harmless, by the applicant/permittee, from any demands, claims, lawsuits, or damages relating to the work described in this permit.

APPLICANT'S SIGNATURE

DocuSigned by:

Chris Brown

AB8A667D2DE64AD...

DATE 5/8/2023

AUTHORIZATION OF PERMIT

In consideration of the applicant's agreement to comply in all respects with the regulations of the ACTD covering such operations, permission is hereby granted for the work to be done as described in the above application. Said work to be done in accordance with the general conditions listed above and the special conditions required as hereby stated. It is expressly understood that this permit is conditioned upon replacement or restoration of the county highway and its right of way to their original or to a satisfactory condition. It is further understood that this permit is issued subject to the approval of local city or township authorities having joint supervision over said street or highway.

APPROVED BY:

DocuSigned by:

Susan Burgmeier

C5E91FE156D44EE...

DATE

5/9/2023

TITLE: Traffic Technician

THIS PERMIT COVERS THE RIGHT OF WAY IN ANOKA COUNTY ONLY
ACTD reserves the right to make changes to these special conditions.



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SPECIAL CONDITIONS

TRAFFIC CONTROL

1. Detours
 - a. Detailed detour layouts shall be submitted to the traffic engineer for approval.
 - b. No detours shall be permitted without prior approval of the Anoka county traffic engineer.
 - c. A ten day notice must be given prior to the installation of any detour.
 - d. It shall be the responsibility of the applicant to notify Anoka county central communications, local government bodies, and any affected bus companies ten days prior to any road closures/detours.
 - e. Immediately upon completion of work and/or detours, all posts, barricades, and signs shall be removed from the right of way.
2. Traffic control devices
 - a. All traffic control devices, barricades, flashers, etc., shall be furnished by the applicant and shall be in accordance with the most recent edition of the Minnesota manual on uniform traffic control devices and temporary traffic control zone layouts – field manual of the same manual.

CONSTRUCTION REQUIREMENTS

- 1) Open cutting of bituminous or concrete surfaced roads will be allowed only at the discretion of the county engineer.
- 2) Neither supplies nor excavation materials shall be placed on the bituminous or concrete surface at any time.
- 3) No trenches will be allowed to remain open overnight.
- 4) Materials removed from the trench shall be used as backfill insofar as they are suitable. All backfill material shall conform to MNDOT specifications for compaction. The use of heavy equipment on top of trench, slapping with backhoe bucket and/or back casting to achieve compaction is prohibited. Any additional material required to back fill to the original grade shall be furnished by the applicant at no expense to the ACTD. All the base and surface courses damaged during construction operations shall be restored to a condition equal to or better than before operations began. The applicant shall be responsible for and restore any settlement.
- 5) All culverts, ditches, shoulders, and backslopes shall be restored to their original condition unless otherwise directed by the ACTD. Shoulders which have been previously constructed or reconstructed with special materials shall be replaced in kind. Restoration of signs, guardrails, guard posts, etc., are the sole responsibility of the applicant and shall be restored to their original condition.
- 6) All roadway maintenance required within the limits of the utility project that is related to the applicant's activities shall be the sole responsibility of the applicant for one year after completion of the project. Upon completion of the restoration work, the applicant shall request a final inspection by the ACTD. The ACTD's approved completion date shall be the starting date of the applicant's one-year responsibility.

HORIZONTAL BORING AND JACKING

- 1) All hard surface roadways shall be jacked or bored.
- 2) All crossings of Anoka County maintained roadbeds, shall be made by boring inside a casing or carrier pipe, or by jacking unless otherwise directed by the Anoka County Engineer. The auger shall lead the casing or carrier pipe by at least six inches whenever possible and never lead the carrier pipe by more than one inch.
- 3) The use of pneumatic devices to facilitate the roadbed crossings will be allowed in most cases with prior approval. In the event approval is not granted and applicant uses a pneumatic device to cross a roadbed and encounters an obstruction and/or unstable subbase material which makes forward or reverse motion of pneumatic device impossible, said pneumatic device then becomes part of the roadway subbase and permission to excavate to retrieve device will not be granted.
- 4) If a pneumatic device is used for the work permitted herein, the installation must be kept to a minimum of four feet below the surface of the roadway if the pneumatic device is less than two inches in diameter, and a minimum of five feet below the surface of the roadway if the pneumatic device is two inches in diameter or larger.

BITUMINOUS RESTORATION

- 1) The locations and dimensions of all openings to be made in the bituminous surface shall be approved by the ACTD prior to any cutting or any surface opening operations.
- 2) All openings in bituminous surfaces shall be cut in a straight line with the sides smooth and vertical. No ragged edges will be permitted. Cutting shall be done with a concrete saw.
- 3) All necessary dust control operations shall be carried out by the applicant at no expense to Anoka County.
- 4) The minimum requirement for subgrade replacement shall be the upper twelve inches of material and shall meet MNDOT specifications for class five placed in six inch layers compacted to one hundred percent of optimum density.
- 5) All manhole casings, gate valves, and other utility structures shall be set one quarter inch below the top of the finished surface.
- 6) Bituminous tack coat materials and application thereof shall conform to MNDOT specification 2357.
- 7) All bituminous surfacing shall be replaced as soon as practicable after the base construction. All bituminous surfacing shall be machine laid. Any exceptions must be approved by the ACTD. Bituminous surfacing shall be replaced to original pavement depth or to a minimum of six inches of bituminous mixture (2360), whichever is greater. Bituminous mixtures must be placed in lifts not exceeding three inches in thickness for base and binder courses and not exceeding two inches for the wear course.
- 8) All surface restoration regardless of size shall conform to existing grades.
- 9) Any unnecessary or negligent damage to bituminous surface in conjunction with the installation and/or repair of a utility shall be cut out and replaced in kind as directed by the ACTD.

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CONCRETE RESTORATION

- 1) Curb and gutter, sidewalks, and driveways shall be restored in accordance with MNDOT specifications 2531 and 2521.

UTILITY LINES

- 1) There shall be only a single pole line on the county right of way on either side of the center line thereof.
- 2) Exact locations of longitudinal installations on county highways shall be located as directed by the ACTD.

SECTION CORNER MONUMENTS

- 1) Utility locations shall not interfere with the location of any section, quarter, witness, or right of way monuments. For assistance in locations, contact the Anoka County Surveyor's Office.
- 2) The applicant shall be responsible for replacement of any existing property irons disturbed during construction.
- 3) The applicant shall notify the Anoka County Surveyor's Office three working days in advance of any anticipated disturbance of any section, quarter, witness, or right of way monuments.
- 4) Any monument disturbed during the course of construction, shall be reset by the Anoka County Surveyor's Office at the expense of the applicant.

ATTACHING TO BRIDGES/STRUCTURES

- 1) No utility is permitted to be hung from, or otherwise attached to, any bridge or structure without having detailed plans approved by the Anoka County Engineer. These plans are to show approaches to the structure, method of installation, type, and dimension of housing for the utility.

ADDITIONAL PROVISIONS

- 1) All subcontractors, installers, and crew shall possess a copy of all documents in relation to the approved permit prior to the commencement of work and be kept on site. This includes, but it not limited to the following:
 - a) Approved permit
 - b) Any/all traffic control plans and/or layouts
- 2) Shall notify Andrea Schmid at 763-324-3128 or andrea.schmid@co.anoka.mn.us
 - a) At least 36 hours prior to the commencement of work
 - b) When there is any change to traffic control set up (ex: stage 1 to stage 2)
 - c) When work is complete - including restorations
- 3) No work during inclement weather or when plows are out in any capacity
- 4) All traffic control shall be in accordance with the most current version of the MnDOT Temporary Traffic Control Field Manual

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Anoka County

TRANSPORTATION DIVISION

Respectful, Innovative, Fiscally Responsible

Highway

Transit

Surveyor

GIS

Fleet

Joe MacPherson, P.E.
Chief Officer, Transportation, County Engineer

Jerry Auge, P.E.
Department Director, Assistant County Engineer

EXCAVATOR AND OPERATOR NOTICE

This notice is for all excavators and operators applying for permits involving excavations your obligations to comply with Minnesota State Statutes 216D that is attached to this notice.

This notice is a requirement of State Statute 216D.02; Notice to Excavators and Operators.

Our Passion Is Your Safe Way Home

1440 Bunker Lake Boulevard N.W. ▲ Andover, MN 55304-4005
Office: 763-324-3100 ▲ Fax: 763-324-3020 ▲ www.anokacounty.us/highway

Affirmative Action / Equal Opportunity Employer

216D.03 NOTIFICATION CENTER.

Subdivision 1. **Participation.** An operator shall participate in and share in the costs of one statewide notification center operated by a vendor selected under subdivision 2.

Subd. 2. **Establishment of notification center; rules.** (a) The notification center services must be provided by a nonprofit corporation approved in writing by the commissioner. The nonprofit corporation must be governed by a board of directors of up to 20 members, one of whom is the director of the Office of Pipeline Safety. The other board members must represent and be elected by operators, excavators, and other persons eligible to participate in the center. In deciding to approve a nonprofit corporation, the commissioner shall consider whether it meets the requirements of this paragraph and whether it demonstrates that it has the ability to contract for and implement the notification center service.

(b) The commissioner shall adopt rules:

(1) establishing a notification process and competitive bidding procedure for selecting a vendor to provide the notification service;

(2) governing the operating procedures and technology needed for a statewide notification center; and

(3) setting forth the method for assessing the cost of the service among operators.

(c) The commissioner shall select a vendor to provide the notification center service. The commissioner may advertise for bids as provided in section 16C.06, subdivisions 1 and 2, and base the selection of a vendor on best value as provided in section 16C.06, subdivision 6. The commissioner shall select and contract with the vendor to provide the notification center service, but all costs of the center must be paid by the operators. The commissioner may at any time appoint a task force to advise on the renewal of the contract or any other matter involving the center's operations.

(d) An operator may submit a bid and be selected to contract to provide the notification center service under paragraph (a) or (c). The commissioner shall annually review the services provided by the nonprofit corporation approved under paragraph (a) or the vendor selected under paragraph (c).

Subd. 3. **Cooperation with local government.** In establishing operating procedures and technology for the statewide notification center, the board of directors or the commissioner must work in cooperation with the League of Minnesota Cities, the Association of Minnesota Counties, and the Township Officers' Association. The purpose of this cooperation is to maximize the participation of local governmental units that issue permits for activities involving excavation to assure that excavators receive notice of and comply with the requirements of sections 216D.01 to 216D.07.

Subd. 4. **Notice to local government.** The notification center shall provide local governmental units with a master list, by county, of the operators in the county who are participants in the notification center, and the telephone number and mailing address of the notification center.

History: 1987 c 353 s 9; 1997 c 187 art 1 s 15; 1998 c 386 art 2 s 69

216D.04 EXCAVATION; LAND SURVEY.

Subdivision 1. **Notice required; contents.** (a) Except in an emergency, an excavator shall and a land surveyor may contact the notification center and provide notice at least 48 hours, excluding Saturdays, Sundays, and holidays and not more than 14 calendar days before beginning any excavation or boundary survey. An excavation or boundary survey begins, for purposes of this requirement, the first time excavation or a boundary survey occurs in an area that was not previously identified by the excavator or land surveyor in the notice.

(b) The notice may be oral or written, and must contain the following information:

- (1) the name of the individual providing the notice;
- (2) the precise location of the proposed area of excavation or survey;
- (3) the name, address, and telephone number of the individual or individual's company;
- (4) the field telephone number, if one is available;
- (5) the type and extent of the activity;
- (6) whether or not the discharge of explosives is anticipated;
- (7) the date and time when the excavation or survey is to commence; and
- (8) the estimated duration of the activity.

Subd. 1a. **Plans for excavation.** (a) Any person, prior to soliciting bids or entering into a contract for excavation, shall provide a proposed notice to the notification center to obtain from the affected operators of underground facilities the type, size, and general location of underground facilities. Affected operators shall provide the information within 15 working days. An operator who provides information to a person who is not a unit of government may indicate any portions of the information which are proprietary and may require the person to provide appropriate confidentiality protection. The information obtained from affected operators must be submitted on the final drawing used for the bid or contract and must depict the utility quality level of that information. This information must be updated not more than 90 days before completion of the final drawing used for the bid or contract.

(b) This subdivision does not apply to bids and contracts for:

- (1) routine maintenance of underground facilities or installation, maintenance, or repair of service lines;
- (2) excavation for operators of underground facilities performed on a unit of work or similar basis; or
- (3) excavation for home construction and projects by home owners.

(c) A person required by this section to show existing underground facilities on its drawings shall conduct one or more preliminary design meetings during the design phase to communicate the project design and coordinate utility relocation. Affected facility operators shall attend these meetings or make other arrangements to provide information.

(d) A person required by this section to show existing underground facilities on its drawings shall conduct one or more preconstruction meetings to communicate the project design and coordinate utility relocation. Affected facility operators and contractors shall attend these meetings or make other arrangements to provide information.

(e) This subdivision does not affect the obligation to provide a notice of excavation as required under subdivision 1.

Subd. 2. Duties of notification center; regarding notice. The notification center shall assign an inquiry identification number to each notice and retain a record of all notices received for at least six years. The center shall immediately transmit the information contained in a notice to every operator that has an underground facility in the area of the proposed excavation or boundary survey.

Subd. 3. Locating underground facility; operator. (a) Prior to the excavation start time on the notice, an operator shall locate and mark or otherwise provide the approximate horizontal location of the underground facilities of the operator and provide readily available information regarding the operator's abandoned and out-of-service underground facilities as shown on maps, drawings, diagrams, or other records used in the operator's normal course of business, without cost to the excavator. The excavator shall determine the precise location of the underground facility, without damage, before excavating within two feet of the marked location of the underground facility.

(b) Within 96 hours or the time specified in the notice, whichever is later, after receiving a notice for boundary survey from the notification center, excluding Saturdays, Sundays, and holidays, unless otherwise agreed to between the land surveyor and operator, an operator shall locate and mark or otherwise provide the approximate horizontal location of the underground facilities of the operator, without cost to the land surveyor.

(c) For the purpose of this section, the approximate horizontal location of the underground facilities is a strip of land two feet on either side of the underground facilities.

(d) Markers used to designate the approximate location of underground facilities must follow the current color code standard used by the American Public Works Association.

(e) If the operator cannot complete marking of the excavation or boundary survey area before the excavation or boundary survey start time stated in the notice, the operator shall promptly contact the excavator or land surveyor.

(f) After December 31, 1998, operators shall maintain maps, drawings, diagrams, or other records of any underground facility abandoned or out-of-service after December 31, 1998.

(g) An operator or other person providing information pursuant to this subdivision is not responsible to any person, for any costs, claims, or damages for information provided in good faith regarding abandoned, out-of-service, or private or customer-owned underground facilities.

Subd. 4. Locating underground facility; excavator or land surveyor. (a) The excavator or land surveyor shall determine the precise location of the underground facility, without damage, before excavating within two feet on either side of the marked location of the underground facility.

(b) If the excavator or land surveyor cancels the excavation or boundary survey, the excavator or land surveyor shall cancel the notice through the notification center.

(c) The notice is valid for 14 calendar days from the start time stated on the notice. If the activity will continue after the expiration time, then the person responsible for the activity shall serve an additional notice at least 48 hours, excluding Saturdays, Sundays, and holidays, before the expiration time of the original notice, unless the excavator makes arrangements with the operators affected to periodically verify or refresh the marks, in which case the notice is valid for six months from the start time stated on the notice.

(d) The excavator is responsible for reasonably protecting and preserving the marks until no longer required for proper and safe excavation near the underground facility. If the excavator has reason to believe the marks are obliterated, obscured, missing, or incorrect, the excavator shall notify the facility operator or notification center in order to have an operator verify or refresh the marks.

History: *1987 c 353 s 10; 1992 c 493 s 5; 1993 c 341 art 1 s 21; 1997 c 196 s 1; 1998 c 348 s 1-3; 2004 c 163 s 2-6*

216D.05 PRECAUTIONS TO AVOID DAMAGE.

An excavator shall:

- (1) plan the excavation to avoid damage to and minimize interference with underground facilities in and near the construction area;
- (2) use white markings for proposed excavations except where it can be shown that it is not practical;
- (3) maintain a clearance between an underground facility and the cutting edge or point of any mechanized equipment, considering the known limit of control of the cutting edge or point to avoid damage to the facility;
- (4) provide support for underground facilities in and near the construction area, including during backfill operations, to protect the facilities; and
- (5) conduct the excavation in a careful and prudent manner.

History: 1987 c 353 s 11; 1998 c 348 s 4; 2004 c 163 s 7

216D.06 DAMAGE TO FACILITY.

Subdivision 1. **Notice; repair.** (a) If any damage occurs to an underground facility or its protective covering, the excavator shall notify the operator promptly. When the operator receives a damage notice, the operator shall promptly dispatch personnel to the damage area to investigate. If the damage results in the escape of any flammable, toxic, or corrosive gas or liquid or endangers life, health, or property, the excavator responsible shall immediately notify the operator and the 911 public safety answering point, as defined in section 403.02, subdivision 19, and take immediate action to protect the public and property. The excavator shall also attempt to minimize the hazard until arrival of the operator's personnel or until emergency responders have arrived and completed their assessment. The 911 public safety answering point shall maintain a response plan for notifications generated by this section.

(b) An excavator shall delay backfilling in the immediate area of the damaged underground facilities until the damage has been investigated by the operator, unless the operator authorizes otherwise. The repair of damage must be performed by the operator or by qualified personnel authorized by the operator.

(c) An excavator who knowingly damages an underground facility, and who does not notify the operator as soon as reasonably possible or who backfills in violation of paragraph (b), is guilty of a misdemeanor.

Subd. 2. **Cost reimbursement.** (a) If an excavator damages an underground facility, the excavator shall reimburse the operator for the cost of necessary repairs, and for a pipeline the cost of the product that was being carried in the pipeline and was lost as a direct result of the damage.

(b) Reimbursement is not required if the damage to the underground facility was caused by the sole negligence of the operator or the operator failed to comply with section 216D.04, subdivision 3.

Subd. 3. **Prima facie evidence of negligence.** It is prima facie evidence of the excavator's negligence in a civil court action if damage to the underground facilities of an operator resulted from excavation, and the excavator failed to give an excavation notice under section 216D.04 or provide support as required by section 216D.05.

History: 1987 c 353 s 12; 1999 c 43 s 1

216D.07 EFFECT ON LOCAL ORDINANCES.

(a) Sections 216D.01 to 216D.07 do not affect or impair local ordinances, charters, or other provisions of law requiring permits to be obtained before excavating.

(b) A person with a permit for excavation from the state or a public agency is subject to sections 216D.01 to 216D.07. The state or public agency that issued a permit for excavation is not liable for the actions of an excavator who fails to comply with sections 216D.01 to 216D.07.

History: *1987 c 353 s 13*

CHAPTER 7560
OFFICE OF PIPELINE SAFETY
EXCAVATION NOTICE SYSTEM

- 7560.0100 DEFINITIONS.
- 7560.0125 ABANDONED AND OUT-OF-SERVICE FACILITIES.
- 7560.0150 PUBLIC RIGHT-OF-WAY MAPPING AND INSTALLATION.
- 7560.0225 EXCAVATOR RESPONSIBILITIES REGARDING A LOCATE.
- 7560.0250 LOCATE STANDARDS.
- 7560.0300 OPERATOR PARTICIPATES AND SHARES COSTS.
- 7560.0325 EMERGENCY EXCAVATION NOTICES.
- 7560.0350 EXCAVATION NOTICE REQUESTING MEET.
- 7560.0375 LOCATING A SERVICE LATERAL.
- 7560.0400 CITATIONS.
- 7560.0500 RESPONSE OPTIONS.
- 7560.0600 DIRECTOR REVIEW.
- 7560.0700 CONSENT ORDER.
- 7560.0800 CIVIL PENALTIES.

7560.0100 DEFINITIONS.

Subpart 1. **Scope.** The terms used in this chapter have the meanings given them. Terms not defined in this part have the meanings given them in Minnesota Statutes, section 216D.01.

Subp. 1a. **Abandoned facility.** "Abandoned facility" means an underground facility that is no longer in service and is physically disconnected from a portion of the operating facility that is in use or still carries service. An abandoned facility has been deemed abandoned by the operator.

Subp. 2. **Director.** "Director" means the director of the Office of Pipeline Safety of the Minnesota Department of Public Safety.

Subp. 3. **Good cause to believe.** "Good cause to believe" means grounds put forth in good faith that are not arbitrary, irrational, unreasonable, or irrelevant and that are based on at least one of the following sources:

- A. information from a person;
- B. facts supplied by the notification center defined in Minnesota Statutes, section 216D.01, subdivision 8;
- C. facts of which the director or an agent of the director has personal knowledge; and
- D. information provided by excavators or operators.

Subp. 4. **Locate.** "Locate" means an operator's markings of an underground facility.

Subp. 5. [Renumbered as subp 8]

Subp. 5a. [Renumbered as subp 9]

Subp. 6. [Renumbered as subp 11]

7560.0125 EXCAVATION NOTICE SYSTEM

2

Subp. 7. **Meet.** When used as a noun in this chapter, "meet" refers to a meeting at the site of proposed excavation requested at the time of notice by the excavator with all affected underground facility operators to further clarify the precise geographic location of excavation, schedule locating, propose future contacts, and share other information concerning the excavation and facilities.

Subp. 8. **Office.** "Office" means the Office of Pipeline Safety of the Minnesota Department of Public Safety.

Subp. 9. **Out-of-service facility.** "Out-of-service facility" means an underground facility that is no longer maintained and is not intended for future use, but has not been deemed abandoned. An out-of-service facility may still be connected to a portion of the operating facility that is in use or still carries service.

Subp. 10. **Public right-of-way.** "Public right-of-way" means the area on, below, or above a public roadway, highway, street, cartway, bicycle lane, and sidewalk in which a government unit has an interest, including other rights-of-way dedicated for travel purposes and utility easements of government units.

Subp. 11. **Remuneration.** "Remuneration" means direct or indirect compensation or consideration paid to the person or the person's agent, employer, employee, subcontractor, or contractor. A person who excavates as part of the person's duties as an employee, employer, agent, subcontractor, or contractor is considered to be acting for remuneration.

Subp. 12. **Service lateral.** "Service lateral" means an underground facility that is used to transmit, distribute, or furnish gas, electricity, communications, or water from a common source to an end-use customer. A service lateral is also an underground facility that is used in the removal of wastewater from a customer's premises.

Statutory Authority: *MS s 14.06; 216D.08; 299F.56; 299F.60; 299F.641; 299J.04*

History: *16 SR 135; 24 SR 448; 29 SR 1503*

Published Electronically: *July 20, 2005*

7560.0125 ABANDONED AND OUT-OF-SERVICE FACILITIES.

Subpart 1. **Duty of operators to provide readily available information.** Operators shall provide readily available information, as shown on maps, drawings, diagrams, or other records used in the normal course of business, on the approximate location of abandoned and out-of-service facilities to an excavator by the excavation date and time noted on the excavation or location notice unless otherwise agreed between the excavator and the operator. An operator fulfills an obligation to provide information on these facilities by doing one or more of the following:

- A. locating and marking the approximate location of the facility according to the current color code standard used by the American Public Works Association, as required in Minnesota Statutes, section 216D.04, subdivision 3, with an abandoned or out-of-service facility identified by an uppercase A surrounded by a circle;
- B. providing informational flags at the area of proposed excavation;
- C. communicating information verbally; or
- D. providing copies of maps, diagrams, or records.

Subp. 2. **Duty to notify operator.** An excavator shall notify the operator:

A. before moving, removing, or otherwise altering a facility that is thought to be abandoned or out of service; or

B. if damage to the facility occurs, pursuant to Minnesota Statutes, section 216D.01, subdivision 2.

Subp. 3. **Verification of abandoned or out-of-service facility.** Upon receipt of notification by an excavator pursuant to subpart 2, an operator shall verify that an underground facility is abandoned or out of service, by either reference to installation records, testing, or other comparable standard of verification, before an excavator is allowed to move, remove, or otherwise alter an underground facility.

Subp. 4. **Liability.** An operator providing information pursuant to Minnesota Statutes, section 216D.04, subdivision 3, is not responsible to any person for any costs, claims, or damages for information provided in good faith regarding abandoned and out-of-service underground facilities.

Statutory Authority: *MS s 14.06; 216D.08; 299J.04; 299F.60*

History: *24 SR 448*

Published Electronically: *July 20, 2005*

7560.0150 PUBLIC RIGHT-OF-WAY MAPPING AND INSTALLATION.

Subpart 1. **Duty of operator to map.** After December 31, 2005, an operator shall maintain a map, a diagram, a drawing, or geospatial information regarding the location of its underground facility within a public right-of-way installed after that date.

Subp. 2. **Duty to install locating wire.** After December 31, 2005, an operator shall install a locating wire or have an equally effective means of marking the location of each nonconductive underground facility within a public right-of-way installed after that date. This requirement does not apply when making minor repairs to an existing nonconductive facility. As applied to this chapter, "minor repairs" means repairs to or partial replacement of portions of existing service laterals located within a public right-of-way for purposes of routine maintenance and upkeep.

Statutory Authority: *MS s 299J.04*

History: *29 SR 1503*

Published Electronically: *July 20, 2005*

7560.0200 [Repealed, 24 SR 448]

Published Electronically: *July 20, 2005*

7560.0225 EXCAVATOR RESPONSIBILITIES REGARDING A LOCATE.

Subpart 1. [Repealed, 29 SR 1503]

Subp. 2. **Responsibility to protect and preserve.** The excavator is responsible for reasonably protecting and preserving a locate until no longer required for proper and safe excavation near the underground facility. If the excavator has reason to believe a locate is obliterated, obscured, missing, or incorrect, the excavator shall notify the facility operator or notification center in order to have an operator verify, refresh, or re-mark the locate.

7560.0250 EXCAVATION NOTICE SYSTEM

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Subp. 3. **Use of locate.** A locate is valid for 14 days from the excavation commencement time stated on the excavation or location notice, unless the excavator has made previous arrangements with the operators affected to periodically verify, refresh, or re-mark the locate.

Statutory Authority: *MS s 14.06; 216D.08; 299J.04; 299F.60*

History: *24 SR 448; 29 SR 1503*

Published Electronically: *July 20, 2005*

7560.0250 LOCATE STANDARDS.

Subpart 1. **Facility locate.** Unless otherwise agreed to between the excavator and operator, an operator shall locate an underground facility using stakes, flags, paint, or other suitable materials in varying combinations dependent upon the surface. The locate must be in sufficient detail to clearly identify the approximate route of the underground facility. The locate must also include:

- A. name, abbreviation, or logo of the operator when more than one operator listed on the notice uses the same color markings;
- B. width of the underground facility if it is greater than eight inches; and
- C. number of underground facilities if greater than one.

Subp. 2. **Operator duties in no conflict situation.** After December 31, 2005, an operator who receives notice and determines that an underground facility is not in conflict with the proposed excavation shall complete one or more of the following:

- A. mark the area "NO" followed by the operator's name, abbreviation, or logo in the color code of the underground facility not in conflict;
- B. place a clear plastic flag at the area that:
 - (1) states "N/C" or "NO CONFLICT" in lettering matching the color code of the underground facility that is not in conflict; and
 - (2) includes the operator's name, abbreviation, or logo, the date, a contact telephone number, and the ticket number; or
- C. contact the notification center through procedures required by the notification center and indicate that there are no underground facilities in conflict with the proposed excavation and that no markings or flags were left at the proposed excavation site.

Subp. 3. **Placement of flags or markings.** If using N/C (no conflict) flags or markings pursuant to subpart 2, an operator shall place the flags or markings in a location that can be readily observed by an excavator. When an area of proposed excavation is delineated by the use of white markings, an operator shall place the N/C flags or markings within, or as near as practicable to, the delineated area.

Subp. 4. **Duties of notification center.** After December 31, 2005, the notification center shall make the information received under subpart 2 available to the excavator before the start date and time on the notice. The notification center may fulfill this requirement by making the information accessible through one or more Internet addresses, by transmitting the information to a continuously working facsimile machine maintained by the excavator, or by other methodology developed by the notification center. The notification center shall make available the information received by operators pursuant to this section through

an electronic means. The notification center is not required by this subpart to contact an excavator verbally via telephone.

Statutory Authority: *MS s 299J.04*

History: *29 SR 1503*

Published Electronically: *July 20, 2005*

7560.0300 OPERATOR PARTICIPATES AND SHARES COSTS.

An operator shall participate in and share the costs of the one call excavation notice system by:

- A. submitting the information required by the notification center to allow the center to notify the operator of excavation activity;
- B. updating the information provided to the notification center on a timely basis;
- C. installing and paying for equipment reasonably requested by the notification center to facilitate receipt of notice of excavation from the center;
- D. paying the costs charged by the notification center on a timely basis; and
- E. receiving and responding to excavation notices, including emergency notices, as required by Minnesota Statutes, chapter 216D.

Statutory Authority: *MS s 14.06; 216D.08; 299F.56; 299F.641*

History: *16 SR 135*

Published Electronically: *July 20, 2005*

7560.0325 EMERGENCY EXCAVATION NOTICES.

Subpart 1. **Duty of excavator to provide notice.** An excavator shall provide notice to the notification center before commencing an emergency excavation, unless subpart 2 applies. All emergency notices, regardless whether made prior to excavation, must be verbal or in a manner accepted by the notification center. In addition to the information required by the notification center, the notice must also contain:

- A. a description of the situation requiring the emergency excavation;
- B. the precise location of the proposed area of the emergency excavation;
- C. at least one continuously staffed telephone number where the excavator can be contacted by the operator throughout the emergency; and
- D. the excavation start date and time if the need for excavation is not immediate.

Subp. 2. **Excavating before notice.** If an emergency is such that providing notice or waiting for an operator would result in an undue risk to life, health, or significant loss of property, the excavator may excavate without providing prior notice or waiting for an operator to mark an underground facility. In this situation, the excavator shall provide notice as soon as practicable and take all reasonable precautions to avoid or minimize damage. Excavation prior to notice under this subpart does not relieve an excavator from any responsibility for damage to an underground facility pursuant to Minnesota Statutes, section 216D.06.

Subp. 3. **Emergency notice requesting immediate response.** Upon receiving an emergency excavation notice requesting an immediate response, an operator shall:

7560.0350 EXCAVATION NOTICE SYSTEM

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A. attempt to contact the excavator within one hour at the telephone number provided in subpart 1, item C, to provide any information concerning facilities at or near the area of excavation including an anticipated response time; and

B. locate and mark the underground facility within three hours of notice unless:

- (1) otherwise agreed between the parties;
- (2) the operator notifies the excavator that not locating does not present an immediate danger to life or health, or a significant loss of property; or
- (3) there is an event or situation that cannot be reasonably anticipated or controlled by the operator.

Subp. 4. **Emergency notice requesting scheduled response.** Upon receiving an emergency excavation notice that does not require an immediate response, and before the scheduled excavation start date and time, an operator shall:

A. locate and mark the underground facility, unless otherwise agreed between the parties; or

B. notify the excavator at the telephone number provided in subpart 1, item C, that there is not an underground facility within the area of proposed excavation.

For purposes of this subpart, a requested start time of three hours or less from the time notice is provided to the center is considered an emergency notice requesting immediate response under subpart 3.

Statutory Authority: *MS s 299J.04*

History: *29 SR 1503*

Published Electronically: *July 20, 2005*

7560.0350 EXCAVATION NOTICE REQUESTING MEET.

Subpart 1. **Excavator duties.** When requesting a meet through the notification center, an excavator must provide at least one contact name and telephone number to assist in facilitating the meet. An excavator shall contact the notification center to cancel or reschedule the meet and the notification center shall relay this information to the affected operators. When a meet is requested, an excavator's notice must include the entire geographic area of the proposed excavation and the specific location of the meet. This part does not relieve an excavator from the duty to provide a precise geographic location of the proposed area of excavation, or to use white markings except where it can be shown that to do so is not practical.

Subp. 2. **Operator duties.** When a meet is requested, an affected operator shall make a reasonable effort to attend the meet at the proposed date and time, or contact the excavator before the meet and reschedule for a mutually agreed date and time.

Subp. 3. **Excavation start date and time.** When a meet is requested, the meet date and time must be at least 48 hours after notice is provided, excluding Saturdays, Sundays, and holidays, and the excavation start date and time must be at least 24 hours after the proposed meet date and time specified on the notice, excluding Saturdays, Sundays, and holidays. This subpart does not apply if these matters are provided for in a written agreement with all affected operators.

Subp. 4. **Meet request documentation.** An excavator shall maintain written documentation of each meet with an underground facility operator or representative. This documentation must be kept for the duration of the excavation conducted under the notice. The documentation must include:

- A. the date and time of each meet;
- B. the names, company affiliations, and contact information of the attendees of each meet;
- C. a diagram, sketch, or description of the precise excavation locations, dates, and times; and
- D. the agreed schedule of any future meets or communications.

Statutory Authority: *MS s 299J.04*

History: *29 SR 1503*

Published Electronically: *July 20, 2005*

7560.0375 LOCATING A SERVICE LATERAL.

Subpart 1. **Operator duties.** Unless otherwise agreed, an underground facility operator shall locate a service lateral before the start date and time on the notice and in accordance with items A through C:

A. An operator of a natural gas, propane, or electric facility shall locate a service lateral up to the meter or the connection to a customer's underground facility, whichever is closer to the end-use customer. If the meter or connection to the customer's underground facility is within a public right-of-way, at a minimum the operator shall locate that portion of the service lateral within the public right-of-way up to the point where the service lateral first leaves the public right-of-way.

B. An operator of a communication facility shall locate a service lateral up to the entry of the first building. If the service lateral does not enter a building, the operator shall locate up to the utilization equipment, fence, or wall that surrounds the equipment.

C. After December 31, 2005, an operator of a sewage or water facility, at a minimum, shall locate that portion of the service lateral within a public right-of-way installed after that date up to the point where the service lateral first leaves the public right-of-way. The operator shall either locate or provide information as shown on maps, drawings, diagrams, or other records, on the location of a sewer or water service lateral installed before January 1, 2006. If no information is available on a sewer or water service lateral installed before January 1, 2006, then notifying the excavator that no information exists fulfills the requirements of this section.

Subp. 2. **Exception.** An operator is not required to locate a service lateral of a customer who currently participates in the statewide notification system, provided the customer and operator mutually agree that the customer will assume locate responsibilities. The agreement must be in writing.

Statutory Authority: *MS s 299J.04*

History: *29 SR 1503*

Published Electronically: *July 20, 2005*

7560.0400 CITATIONS.

Subpart 1. **Notice of violation.** The office shall issue a notice of probable violation when the office has good cause to believe a violation of Minnesota Statutes, sections 216D.01 to 216D.09 or this chapter has occurred.

Subp. 2. **Contents of notice of violation.** A notice of violation must include:

7560.0500 EXCAVATION NOTICE SYSTEM

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- A. a statement of the statute or rule allegedly violated by the person and a description of the evidence on which the allegation is based;
- B. notice of response options available to the person cited;
- C. notice that the person has 30 days in which to respond;
- D. notice that failure to respond within 30 days precludes administrative review under this chapter; and
- E. if a civil penalty is proposed, the amount of the proposed civil penalty and the maximum civil penalty applicable under law.

Subp. 3. **Receipt of notice.** The notice of violation is deemed received three days after mailing to the person's last known address.

Statutory Authority: *MS s 14.06; 216D.08; 299F.56; 299F.60; 299F.641; 299J.04*

History: *16 SR 135; 24 SR 448*

Published Electronically: *July 20, 2005*

7560.0500 RESPONSE OPTIONS.

The person shall respond to the notice of violation in the following way:

- A. When the notice contains a proposed compliance order, the person shall:
 - (1) agree to the proposed compliance order;
 - (2) request the execution of a consent order;
 - (3) object to the proposed compliance order and submit written explanations, information, or other materials in answer to the allegations in the notice; or
 - (4) request the office to initiate a hearing under Minnesota Statutes, sections 14.50 to 14.69.
- B. When the notice contains a proposed civil penalty, the person shall:
 - (1) pay the penalty and close the case;
 - (2) submit an offer in compromise of the proposed civil penalty;
 - (3) submit a written explanation, information, or other material in answer to the allegations or in mitigation of the proposed civil penalty; or
 - (4) request the office to initiate a hearing under Minnesota Statutes, sections 14.50 to 14.69.
- C. Failure to respond in writing within 30 days precludes administrative review under this chapter. A final order will be issued and penalties will be forwarded for collection.

Statutory Authority: *MS s 14.06; 216D.08; 299F.56; 299F.60; 299F.641; 299J.04*

History: *16 SR 135; 24 SR 448*

Published Electronically: *July 20, 2005*

7560.0600 DIRECTOR REVIEW.

If the person objects to the proposed civil penalty or compliance order and submits written explanations, information, or other materials in response to a notice of violation, within the time specified in part 7560.0500, the director shall review the submissions and determine whether to negotiate further, to change or withdraw the notice of violation, or to initiate a hearing under Minnesota Statutes, sections 14.50 to 14.69.

Statutory Authority: *MS s 14.06; 216D.08; 299F.56; 299F.60; 299F.641; 299J.04*

History: *16 SR 135; 24 SR 448*

Published Electronically: *July 20, 2005*

7560.0700 CONSENT ORDER.

An executed consent order must contain:

- A. an admission by the person of the jurisdictional facts;
- B. a waiver of further procedural steps and the right to seek judicial or administrative review or otherwise challenge or contest the validity of the consent order; and
- C. an agreement that the notice of violation may be used to construe the terms of the consent order.

Statutory Authority: *MS s 14.06; 216D.08; 299F.56; 299F.641*

History: *16 SR 135*

Published Electronically: *July 20, 2005*

7560.0800 CIVIL PENALTIES.

Subpart 1. **Proceedings against excavators.** When the office has good cause to believe that an excavator is engaging or has engaged in conduct that violates Minnesota Statutes, section 216D.04, subdivision 1, 2, or 3; 216D.05, clause (1), (2), (3), or (4); or 216D.06, subdivision 1, or a rule adopted under Minnesota Statutes, section 216D.08, subdivision 4, the office, if appropriate, shall negotiate a civil penalty under Minnesota Statutes, section 216D.08, subdivision 2. A penalty imposed under Minnesota Statutes, section 216D.08, is subject to the contested case and judicial review provisions of Minnesota Statutes, chapter 14. An operator who engages or has engaged in excavation that violates Minnesota Statutes, chapter 216D, is subject to the proceedings specified in subpart 2 and is subject to the penalties specified in subpart 4, item B or C.

Subp. 2. **Proceedings against underground facility operators.** The office may negotiate a civil penalty under item A or B.

A. When the office has good cause to believe that an underground facility operator, other than an operator set forth in item B, is engaging or has engaged in conduct that violates Minnesota Statutes, sections 216D.01 to 216D.07, or a rule adopted under Minnesota Statutes, section 216D.08, subdivision 4, the office, if appropriate, shall negotiate a civil penalty under Minnesota Statutes, section 216D.08, subdivision 2. A penalty imposed under Minnesota Statutes, section 216D.08, is subject to the contested case and judicial review provisions of Minnesota Statutes, chapter 14.

7560.0800 EXCAVATION NOTICE SYSTEM

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B. When the office has good cause to believe that an operator who engages in the transportation of gas or hazardous liquids or who owns or operates a gas or hazardous liquid pipeline facility is engaging or has engaged in conduct that violates Minnesota Statutes, sections 299F.56 to 299F.641, or a rule adopted under Minnesota Statutes, section 299F.60, subdivision 5, the office, if appropriate, shall negotiate a civil penalty under Minnesota Statutes, section 299F.60, subdivision 2. A penalty imposed under Minnesota Statutes, section 299F.60, is subject to the contested case and judicial review provisions of Minnesota Statutes, chapter 14.

Subp. 3. **Assessment considerations.** In assessing a civil penalty under this part, the office shall consider the following factors:

- A. the nature, circumstances, and gravity of the violation;
- B. the degree of the person's culpability;
- C. the person's history of previous offenses;
- D. the person's ability to pay;
- E. good faith on the part of the person in attempting to remedy the cause of the violation;
- F. the effect of the penalty on the person's ability to continue in business; and
- G. past reports of damage to an underground facility by a person.

Subp. 4. **Maximum penalties.** For the purposes of this part, penalties imposed under this part must not exceed the limits in items A to C.

A. Penalties imposed against excavators must not exceed \$1,000 for each violation per day of violation.

B. Penalties imposed against underground facility operators, other than an operator set forth in item C, must not exceed \$1,000 for each violation per day of violation.

C. Penalties imposed against an operator who engages in the transportation of gas or hazardous liquids or who owns or operates a gas or hazardous liquid pipeline facility must not exceed \$10,000 for each violation for each day that the violation persists, except that the maximum civil penalty must not exceed \$500,000 for a related series of violations.

Subp. 5. **Payment procedure.** The person shall pay a civil penalty that has been proposed, assessed, or compromised by submitting to the office a check or money order in the correct amount, payable to the commissioner of public safety.

Statutory Authority: *MS s 14.06; 216D.08; 299F.56; 299F.60; 299F.641; 299J.04*

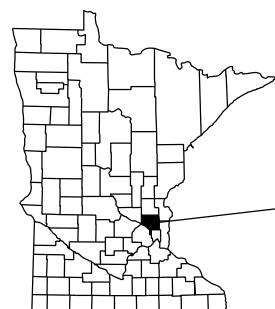
History: *16 SR 135; 24 SR 448*

Published Electronically: *July 20, 2005*

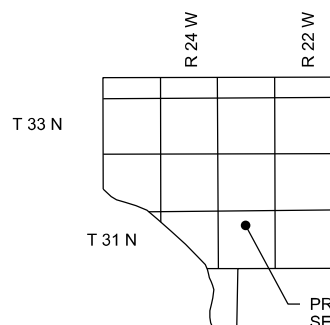
MINNESOTA DEPARTMENT OF TRANSPORTATION CITY OF BLAINE, ANOKA COUNTY, MINNESOTA

CONSTRUCTION PLAN FOR GRADING, BITUMINOUS PAVING, CONCRETE CURB & GUTTER, ADA IMPROVEMENTS, AND SIGNAL SYSTEM

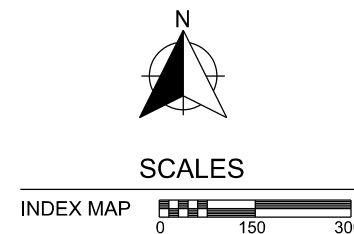
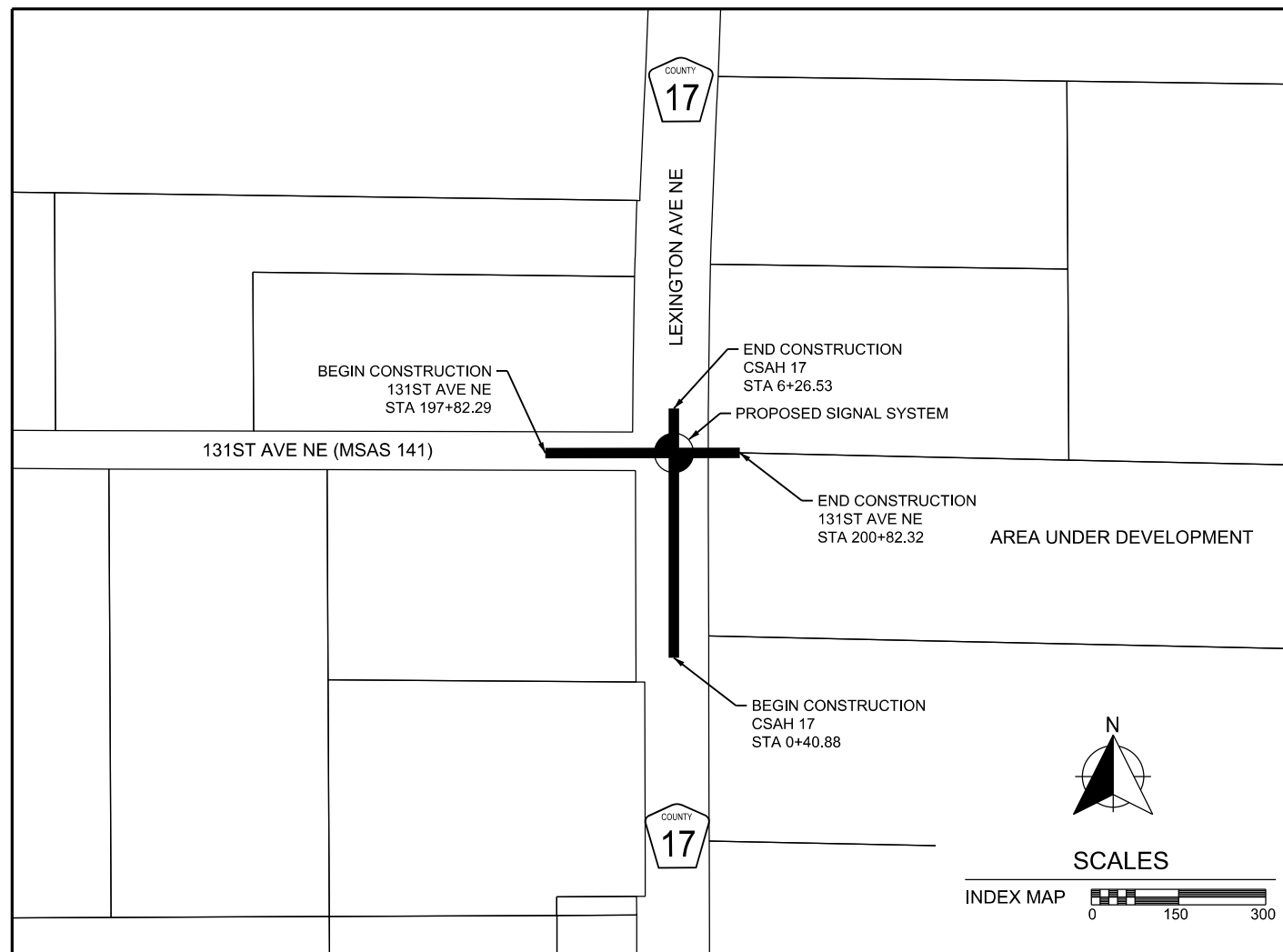
LOCATED ON CSAH 17 (LEXINGTON AVE NE) AT 131ST AVE NE (MSAS 141)



PROJECT LOCATION
COUNTY: ANOKA
DISTRICT: METRO



PROJECT LOCATION
SECTION: 1, 2
TOWNSHIP: 31 N
RANGE: 23 W



GOVERNING SPECIFICATIONS
THE 2020 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN.
THE CITY OF BLAINE STANDARD SPECIFICATIONS SHALL GOVERN.
ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE LATEST EDITION OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING THE LATEST EDITION OF THE FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS.

PLAN SHEET INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	GENERAL LAYOUT
3	STATEMENT OF ESTIMATED QUANTITIES
4 - 5	CONSTRUCTION NOTES & STANDARD PLATES
6 - 7	TYPICAL SECTIONS
8	MISCELLANEOUS DETAILS
9 - 20	STANDARD PLANS
21 - 26	CONSTRUCTION STAGING & TRAFFIC CONTROL PLAN
27 - 28	ALIGNMENT PLAN & TABULATION
29	INPLACE TOPOGRAPHY & REMOVALS
30 - 32	STREET & DRAINAGE PLAN
33	TURF ESTABLISHMENT & EROSION CONTROL
34 - 35	SIGNING & STRIPING PLAN
36 - 52	TRAFFIC CONTROL SIGNAL SYSTEM
53	CSAH 17 CROSS SECTIONS

THIS PLAN CONTAINS 53 SHEETS

ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS AND ORDINANCES WILL BE COMPLIED WITH IN THE CONSTRUCTION OF THIS PROJECT.



DESIGN ENGINEER: I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

NICHOLAS E. HENTGES, PE
PRINTED NAME
44620
LICENSE NO.

APPROVED: CITY OF BLAINE ENGINEER

APPROVED: ANOKA COUNTY ENGINEER

I HEREBY CERTIFY THAT THE FINAL FIELD REVISIONS, IF ANY, OF THE PLAN WERE MADE BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

PRINTED NAME
LICENSE NO.

WSB PROJECT
019869-000

SHEET
1
OF
53
SHEETS

DESIGN DESIGNATION

	CSAH 17 (LEXINGTON AVE NE)	131ST AVE NE (MSAS 141)
GROSS LENGTH	585.65' = 0.111 MILES	300.03' = 0.057 MILES
BRIDGES-LENGTH	NA	NA
EXCEPTIONS-LENGTH	NA	NA
NET LENGTH	585.65' = 0.111 MILES	300.03' = 0.057 MILES
R VALUE	NA	50
CURRENT ADT (2022)	13,400	250
FUTURE ADT (2042)	25,400	300
D (DIRECTIONAL DISTR.)	50 / 50	50 / 50
HEAVY COMMERCIAL	3.83%	3.84%
ESALS	NA	30,000
DESIGN SPEED	55 MPH	30 MPH
BASED ON SIGHT DISTANCE	STOPPING	STOPPING
HEIGHT OF EYE / OBJECT	3.5' / 2.0'	3.5' / 2.0'
FUNCTIONAL CLASS	MINOR ARTERIAL	LOCAL
NO. OF TRAFFIC LANES	4	2
NO. OF PARKING LANES	0	0
SHOULDER WIDTH	8'	NA
TON DESIGN	10	10
DESIGN SPEED NOT ACHIEVED AT	NA	NA

PLAN REVISIONS		
DATE	SHEET NO.	APPROVED BY

EXCAVATION NOTICE SYSTEM

A CALL TO GOPHER STATE ONE CALL (651-454-0002) IS REQUIRED A MINIMUM OF 48 HOURS PRIOR TO PERFORMING ANY EXCAVATION.

UTILITY INFORMATION

THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS UTILITY QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-02, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA."

GOPHER ONE CALL TICKET NUMBER(S):
221150968, 221150970

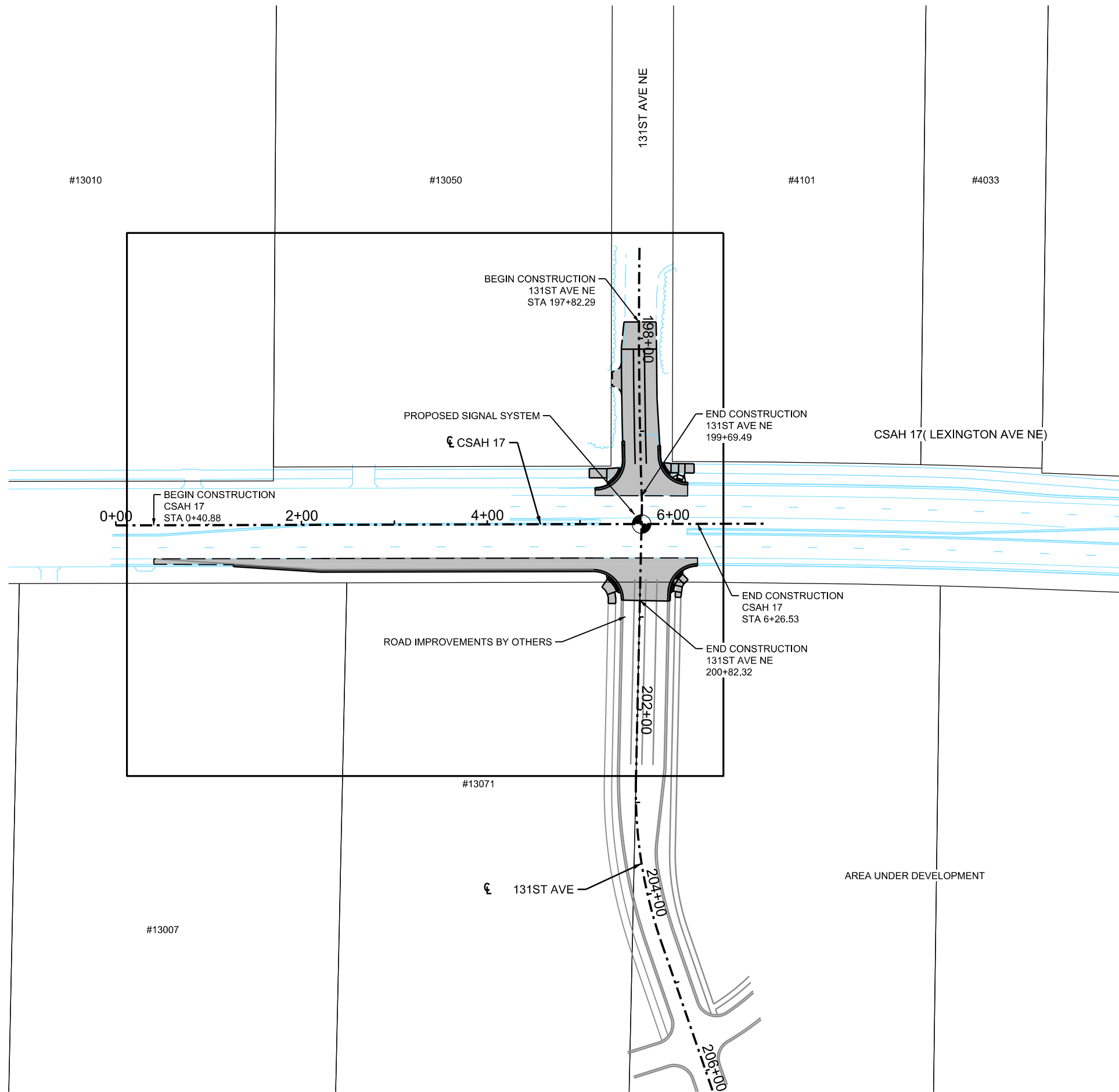
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CSAH 17



WSB PROJECT NO.:
019869-000

SCALE: AS SHOWN
DESIGN BY: AJF
PLAN BY: AJF
CHECK BY: NEH

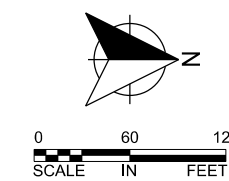
REVISIONS	
NO.	DESCRIPTION

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

NICHOLAS E. HENTGES, PE

DATE: 7/29/2022 LIC. NO.: 44620

CITY OF BLAINE, MN LEXINGTON AVENUE NE AT 131ST AVENUE NE INTERSECTION IMPROVEMENTS



SHEET INDEX	
ALIGNMENT PLAN	27
INPLACE TOPOGRAPHY & REMOVAL PLAN	29
STREET, DRAINAGE, SITE RESTORATION PLAN	30

GENERAL LAYOUT

SHEET
2
OF
53
SHEETS

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STATEMENT OF ESTIMATED QUANTITIES							
ITEM NUMBER	DESCRIPTION	NOTES	UNIT	PROJECT TOTAL	DEVELOPER / CITY SHARED	DEVELOPER	CITY OF BLAINE
				ESTIMATED QUANTITY	ESTIMATED QUANTITY	ESTIMATED QUANTITY	ESTIMATED QUANTITY
2021.501	MOBILIZATION		LUMP SUM	1	0.71	0.17	0.11
2104.502	REMOVE LIGHTING UNIT		EACH	1			1
2104.502	REMOVE CASTING		EACH	2		2	
2104.502	REMOVE SIGN		EACH	2			2
2104.502	REMOVE HANDHOLE		EACH	1		1	
2104.502	REMOVE LIGHT FOUNDATION		EACH	1			1
2104.502	REMOVE MAIL BOX SUPPRT		EACH	1		1	
2104.502	SALVAGE CASTING		EACH	2			2
2104.503	SAWING BIT PAVEMENT (FULL DEPTH)		LIN FT	664		500	164
2104.503	REMOVE CURB AND GUTTER		LIN FT	626		500	126
2104.504	REMOVE BITUMINOUS PAVEMENT		SQ YD	92			92
2104.518	REMOVE BITUMINOUS WALK		SQ FT	392			392
2104.518	REMOVE CONCRETE WALK		SQ FT	292			292
2106.507	EXCAVATION - COMMON		CU YD	700		400	300
2106.507	EXCAVATION - SUBGRADE		CU YD	175		175	
2106.507	COMMON EMBANKMENT (CV)		CU YD	100		50	50
2106.507	SELECT GRANULAR EMBANKMENT (CV)		CU YD	175		175	
2112.604	SUBGRADE PREPARATION	(P)	SQ YD	1583		668	915
2123.610	STREET SWEEPER (WITH PICKUP BROOM)		HOUR	30		15	15
2130.523	WATER	(1)	MGAL	30		15	15
2118.509	AGGREGATE SURFACING CLASS 2		TON	47			47
2211.509	AGGREGATE BASE CLASS 5		TON	509		254	255
2231.509	BITUMINOUS PATCHING MIXTURE		TON	15			15
2232.504	MILL BITUMINOUS SURFACE (1.5")		SQ YD	668		368	300
2301.602	DRILL & GROUT REINF BAR (EPOXY COATED)		EACH	75	75		
2357.506	BITUMINOUS MATERIAL FOR TACK COAT		GALLON	140		97	43
2360.509	TYPE SP 9.5 WEARING COURSE MIXTURE (3,C)		TON	69			69
2360.509	TYPE SP 12.5 NON WEARING COURSE MIXTURE (3,B)		TON	100		100	
2360.509	TYPE SP 12.5 NON WEARING COURSE MIXTURE (3,C)		TON	55			55
2360.509	TYPE SP 12.5 WEARING COURSE MIX (3,F)		TON	120		120	
2503.503	15" RC PIPE SEWER DES 3006 CL V		LIN FT	16		16	
2506.502	CASTING ASSEMBLY		EACH	4		4	
2506.502	INSTALL CASTING		EACH	2			2
2506.503	CONSTRUCT DRAINAGE STRUCTURE DESIGN H		LIN FT	7		7	
2506.602	CONNECT INTO EXISTING DRAINAGE STRUCTURE		EACH	2		2	
2521.518	6" CONCRETE WALK		SQ FT	1426	853	154	419
2531.503	CONCRETE CURB & GUTTER DESIGN B424		LIN FT	633		507	126
2531.618	TRUNCATED DOMES		SQ FT	140	140		
2563.601	TRAFFIC CONTROL		LUMP SUM	1	0.71	0.17	0.11
2563.613	PORTABLE CHANGEABLE MESSAGE SIGN		UNIT DAY	14		14	
2564.518	SIGN PANELS TYPE C		SQ FT	30		22	8
2565.501	EMERGENCY VEHICLE PREEMPTION SYSTEM		LUMP SUM	1	1		
2565.516	TRAFFIC CONTROL SIGNAL SYSTEM		SYSTEM	1	1		
2573.502	STORM DRAIN INLET PROTECTION		EACH	11		4	7
2573.502	CULVERT END CONTROLS		EACH	1			1
2573.503	SILT FENCE, TYPE MS		LIN FT	222			222
2573.503	SEDIMENT CONTROL LOG TYPE COMPOST		LIN FT	569		400	169
2574.505	SOIL BED PREPARATION		ACRE	0.3		0.2	0.1
2574.507	COMMON TOPSOIL BORROW		CU YD	122		70	52
2574.508	FERTILIZER TYPE 3		POUND	105		70	35
2575.504	ROLLED EROSION PREVENTION CATEGORY 20		SQ YD	792		269	523
2575.508	SEED MIXTURE 25-131		POUND	66		44	22
2575.523	RAPID STABILIZATION METHOD 3		MGAL	3		2	1
2581.503	REMOVABLE PREFORM PAVEMENT MARKING TAPE	(3)	LIN FT	841		715	126
2582.503	4" SOLID LINE MULTI COMP		LIN FT	912		788	124
2582.503	4" DBLE SOLID LINE MULTI COMP		LIN FT	136		12	124
2582.503	24" SOLID LINE PREF THERMO		LIN FT	107	107		
2582.518	PAVT MSSG PREF THERMO		SQ FT	109		62	47
2582.518	CROSSWALK PREF THERMO		SQ FT	900	900		

NOTES

- (1) TO BE USED FOR DUST CONTROL AS DIRECTED BY THE ENGINEER.
- (2) TO BE USED AS DIRECTED BY THE ENGINEER.
- (3) 4" WHITE
- (P) PLAN QUANTITY



WSB PROJECT NO.:
019869-000

SCALE: DESIGN BY:
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PLAN BY: CHECK BY:
AJF NEH

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NO.	DESCRIPTION

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NICHOLAS E. HENTGES, PE
DATE: 7/29/2022 LIC. NO.: 44620

**CITY OF BLAINE, MN
LEXINGTON AVENUE NE AT
131ST AVENUE NE
INTERSECTION IMPROVEMENTS**

STATEMENT OF ESTIMATED QUANTITIES

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SOILS & CONSTRUCTION NOTES

- GRADING GRADE IS DEFINED AS THE BOTTOM OF THE PROPOSED AGGREGATE LAYER. SUITABLE GRADING MATERIAL IS DEFINED AS ANY ON SITE MINERAL SOIL NOT DEFINED AS UNSUITABLE.
- SELECT GRADING MATERIAL SHALL CONSIST OF ALL MINERAL SOILS ENCOUNTERED WITH THE EXCEPTION OF TOPSOIL, DEBRIS, ORGANIC MATERIAL, AND OTHER UNSUITABLE SOILS.
- SLOPE DRESSING ON THE PROJECT IS DEFINED AS THE TOPSOIL OR OTHER SOIL PLACED DURING CONSTRUCTION TO PROVIDE A MEDIUM FOR ESTABLISHING TURF. INPLACE SLOPE DRESSING GENERALLY CONSISTS OF SILTY SAND (SM) WHICH WAS DARK BROWN, MOIST, AND HAD TRACES OF GRAVEL.
- STRIP ALL INPLACE SLOPE DRESSING (TOPSOIL) WHERE PRESENT IN AREAS TO BE DISTURBED BY CONSTRUCTION AND REUSE AS SLOPE DRESSING.
- UNSUITABLE SOILS ARE DEFINED AS MARL, SILT, SILTY LOAM, PEAT, MUCK, TOPSOIL AND OTHER ORGANIC SOILS WHICH DO NOT MEET OR ARE NOT MANUFACTURED TO MEET ANY OF THE DEFINED CATEGORIES, AND ARE THEREFORE NOT REUSABLE. UNSUITABLE MATERIAL MAY NOT BE PLACED WITHIN A 1(V):1.5(H) SLOPE DOWNWARD AND OUTWARD FROM THE GRADING EMBANKMENT PI OR ABOVE THE ELEVATION OF THE BOTTOM OF THE SELECT GRANULAR SUBGRADE CORRECTION MATERIAL. ALL MATERIAL IS SUBJECT TO THE DISCRETION OF THE ENGINEER.
- UNLESS OTHERWISE SPECIFICALLY ALLOWED OR REQUIRED BY THE CONTRACT, BITUMINOUS AND CONCRETE ITEMS DISTURBED BY CONSTRUCTION SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE RECYCLED TO THE EXTENT ALLOWED IN BASE AND SURFACING ITEMS OR DISPOSED OF OUTSIDE OF THE RIGHT-OF-WAY IN ACCORDANCE WITH SPEC 2104.3D3.
- OBTAIN COMPACTION ON PERMANENT GRADING PORTIONS OF CONSTRUCTION IN ACCORDANCE WITH THE "QUALITY COMPACTION METHOD" REQUIREMENTS.
- OBTAIN COMPACTION OF GRADING PORTIONS OF TEMPORARY CONSTRUCTION IN ACCORDANCE WITH THE "QUALITY COMPACTION METHOD" REQUIREMENTS.
- NO FLY ASH, LIME, OR CEMENT STABILIZATION OF THE SUBGRADE SOILS WILL BE ALLOWED PER MNDOT.
- COMPACTION OF THE AGGREGATE BASE LAYERS SHALL BE OBTAINED IN ACCORDANCE WITH THE SPECIFIED DENSITY COMPACTION METHOD.
- ANY TRAFFIC LANES USED DURING CONSTRUCTION ADJACENT TO EXCAVATIONS MUST BE DELINEATED TO KEEP VEHICLES A SAFE DISTANCE AWAY FROM THE EXCAVATIONS, THE DELINEATION SHOULD COINCIDE WITH POINTS ESTABLISHED BY A 1(V):2(H) OR FLATTER SLOPE BETWEEN THE EDGE OF THE TRAFFIC SURFACE AND TEH NEAR EDGE OF THE EXCAVATION BOTTOM.
- DISPOSITION OF EXCAVATED MATERIAL SHALL BE IN ACCORDANCE WITH SPEC 2106.
- WHERE CONNECTING TO INPLACE ROADWAYS AT THE TERMINI OF THE PROPOSED NEW CONSTRUCTION, CUT VERTICALLY TO TEH BOTTOM OF THE INPLACE SURFACING OR TO THE BOTTOM OF THE NEW SURFACING DESIGN, WHICHEVER IS DEEPER; THAN AT A 1(V):20(H) TAPER TO THE BOTTOM OF THE SUBGRADE EXCAVATION.
- PROVIDE A SAWCUT TO ENSURE A UNIFORM JOINT WHEN PLACING NEW PAVEMENT ADJACENT TO INPLACE PAVEMENT. SAWCUTTING OF CONCRETE WALK AND CURB & GUTTER IS INCIDENTAL.
- THE BITUMINOUS TACK COAT MATERIAL SHALL CONSIST OF EMULSIFIED ASPHALT (CSS-1 OR CSS-AH) AND BE APPLIED BETWEEN COURSES AND TO MILLED SURFACES. THE TACK COAT SHALL HAVE WATER ADDED AT A RATE OF 30-40 PERCENT OF THE VOLUME OF THE EMULSION. THE TACK COAT MATERIAL SHALL BE APPLIED AT A UNIFORM RATE OF 0.03 TO 0.05 GAL PER SQUARE YARD BETWEEN NEW BITUMINOUS LAYERS AND AND AT A RATE OF 0.07 TO 0.09 GAL PER SQUARE YARD OVER A MILLED BITUMINOUS SURFACE. THESE APPLICATION RATES ARE FOR UNDILUTED EMULSION (AS SUPPLIED FROM THE REFINERY).
- THE BITUMINOUS MIXTURE SHALL MEET THE REQUIREMENTS OF MNDOT SPECIFICATION 2360.
- THE INFORMATION SHOWN ON THESE DRAWING CONCERNING TYPE AND LOCATION OF PRIVATE UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATIONS AS TO THE TYPE AND LOCATION OF PRIVATE UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. CONTRACTOR TO CALL GOPHER STATE ONE CALL A MINIMUM OF 48 HOURS PRIOR TO EXCAVATION.
- TEMPORARY EROSION CONTROL - TEMPORARY EROSION CONTROL DEVICES AND THEIR SUGGESTED LOCATIONS HAVE BEEN SHOWN IN THE PLANS ALONG WITH PAY ITEMS FOR THEIR USE. THIS DOES NOT HOWEVER RELIEVE THE CONTRACTOR FROM THE RESPONSIBILITY TO CONDUCT CONSTRUCTION IN A MANNER THAT WILL CONTROL EROSION. RESPONSIBILITY FOR CONTROLLING EROSION AND MAINTENANCE OF EROSION CONTROL AS SET IN MNDOT SPECIFICATIONS: 1717, 1803, 2101, 2106, 2575 AND IS AMEND BY THE SPECIAL PROVISIONS.
- ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE LATEST EDITION OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING THE FIELD MANUAL.
- THE CONSTRUCTION LIMITS SHOWN IN THE PLANS REPRESENT THE POINT OF INTERSECTION BETWEEN THE REQUIRED FILL OR CUT SLOPE AND THE EXISTING GROUND LINE AS DEPICTED ON THE CROSS SECTIONS. THE CONSTRUCTION LIMITS DO NOT INCLUDE AREAS REQUIRED FOR SLOPE ROUNDING.

THE FOLLOWING STANDARD PLATES, APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION, SHALL APPLY ON THIS PROJECT

MNDOT STANDARD PLATES	
PLATE NO.	DESCRIPTION
4026A	CONCRETE ENCASED CONCRETE ADJUSTING RINGS
4108F	ADJUSTING RINGS FOR CATCH BASINS AND MANHOLES
7100H	CONCRETE CURB AND GUTTER (DESIGN B AND DESIGN V)
7111J	INSTALLATION OF CATCH BASIN CASTINGS (CONCRETE CURB AND GUTTER)
8000K	TEMPORARY CHANNELIZERS (3 SHEETS)
8111E	TRAFFIC SIGNAL BRACKETING (PEDESTAL MOUNTED) (3 SHEETS)
8112I	PEDESTAL FOUNDATION (TRAFFIC CONTROL SIGNALS)
8119C	GROUND MOUNTED CABINET FOUNDATION
8122F	PEDESTAL AND PEDESTAL BASE (FOR TRAFFIC CONTROL SIGNALS SUPPORT) (2 SHEETS)
8123G	POLE AND MAST ARM - LUMINAIRES AND TRAFFIC LIGHTS ASSEMBLY (FOR ALL POLE TYPES) (2 SHEETS)
8126L	POLE FOUNDATION (PA90 AND PA100)
8129A	SHIM AND WASHER (TRAFFIC CONTROL SIGNALS AND ROADWAY LIGHTING)
8132B	PREFORMED RIGID PVC CONDUIT LOOP DETECTOR - LAYOUT DETAILS, LAYOUT NOTES, TYPICAL INSTALLATION (3 SHEETS)

SEE SHEET 36 FOR ADDITIONAL STANDARD PLATES APPLICABLE TO THIS PROJECT.

CITY OF BLAINE STANDARD PLATES	
PLATE NO.	DESCRIPTION
ST-6	CONCRETE C&G
ST-10	RURAL SECTION ROAD
ST-11	RURAL SECTION DRIVEWAY & CULVERT
ST-12	TYPICAL SIDEWALK
ST-13	OFF ROAD TRAIL TYPICAL SECTION

UTILITY NOTES

- THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE WITH THE UTILITY COMPANIES. CALL GOPHER STATE ONE CALL AT LEAST 48 HOURS PRIOR TO EXCAVATION OR CONSTRUCTION.

THE FOLLOWING IS A LIST OF UTILITY COMPANIES INVOLVED IN THIS PROJECT:	
ANOKA COUNTY	
ARVIG	
CENTERPOINT ENERGY	
LUMEN	
CITY OF BLAINE	
COMCAST	
CONNEXUS ENERGY	
MCI	
XCEL ENERGY	



WSB PROJECT NO.:
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PLAN BY: AJF
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NICHOLAS E. HENTGES, PE
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CITY OF BLAINE, MN
LEXINGTON AVENUE NE AT
131ST AVENUE NE
INTERSECTION IMPROVEMENTS

CONSTRUCTION NOTES & STANDARD PLATES

SHEET
4
OF
53
SHEETS

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B-612 CONCRETE CURB & GUTTER
MNDOT Standard Plate 7100H

B-618 CONCRETE CURB & GUTTER
MNDOT Standard Plate 7100H

D-312 CONCRETE CURB & GUTTER

CONCRETE CURB & GUTTER Plate No. ST-6

2022 STANDARD DETAIL PLATE
City of Blaine - Engineering Department
10801 Town Square Drive NE, Blaine, Minnesota 55449 763-785-6172 Fax 763-785-6139

RURAL SECTION ROAD Plate No. ST-10

2022 STANDARD DETAIL PLATE
City of Blaine - Engineering Department
10801 Town Square Drive NE, Blaine, Minnesota 55449 763-785-6172 Fax 763-785-6139

RESIDENTIAL RURAL SECTION DRIVEWAY & CULVERT INSTALLATION Plate No. ST-11

2022 STANDARD DETAIL PLATE
City of Blaine - Engineering Department
10801 Town Square Drive NE, Blaine, Minnesota 55449 763-785-6172 Fax 763-785-6139

TYPICAL SIDEWALK Plate No. ST-12

2022 STANDARD DETAIL PLATE
City of Blaine - Engineering Department
10801 Town Square Drive NE, Blaine, Minnesota 55449 763-785-6172 Fax 763-785-6139

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OFF ROAD TRAIL TYPICAL SECTION Plate No. ST-13

2022 STANDARD DETAIL PLATE
City of Blaine - Engineering Department
10801 Town Square Drive NE, Blaine, Minnesota 55449 763-785-6172 Fax 763-785-6139



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NO.	DESCRIPTION

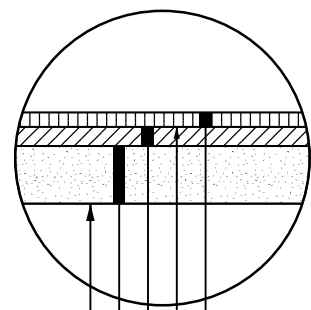
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**CITY OF BLAINE, MN
LEXINGTON AVENUE NE AT
131ST AVENUE NE
INTERSECTION IMPROVEMENTS**

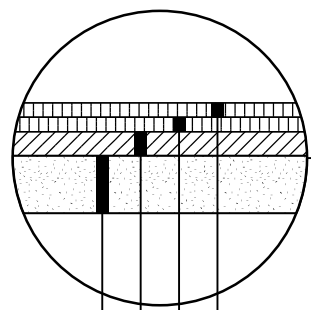
CONSTRUCTION NOTES & STANDARD PLATES

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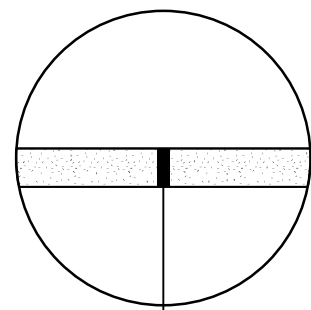
INSET A
131ST AVE NE

- 1.5" TYPE SP 9.5 WEARING COURSE MIXTURE SPWEA340C
- BITUMINOUS TACK COAT (0.05 GAL/SQ YD)
- 2.0" TYPE SP 12.5 NON-WEARING COURSE MIXTURE SPNWB330C
- 6.0" AGGREGATE BASE (CV) CLASS 5
- SUBGRADE PREPARATION



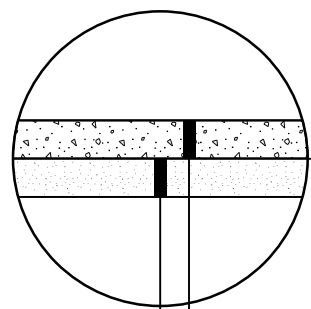
INSET B
CSAH 17
(LEXINGTON AVE NE)

- 1.5" TYPE SP 12.5 WEARING COURSE MIXTURE SPWEB340F
- 1.5" TYPE SP 12.5 WEARING COURSE MIXTURE SPWEB340F
- 2.5" TYPE SP 12.5 NON-WEARING COURSE MIXTURE SPNWB330B
- 6.0" AGGREGATE BASE (CV) CLASS 5



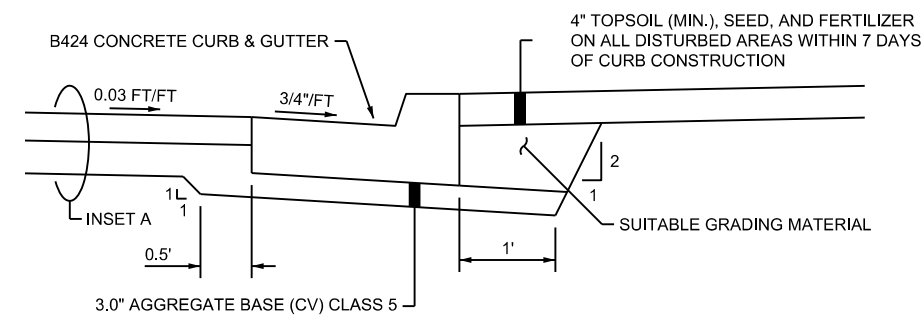
INSET C
AGGREGATE DRIVEWAY
(RESIDENTIAL)

- 6.0" AGGREGATE SURFACING (CV) CLASS 2



INSET D
CONCRETE WALK

- 4" CONCRETE WALK
- 6" CONCRETE WALK (PEDESTRIAN RAMPS & LANDINGS)
- 4.0" AGGREGATE BASE (CV) CLASS 5



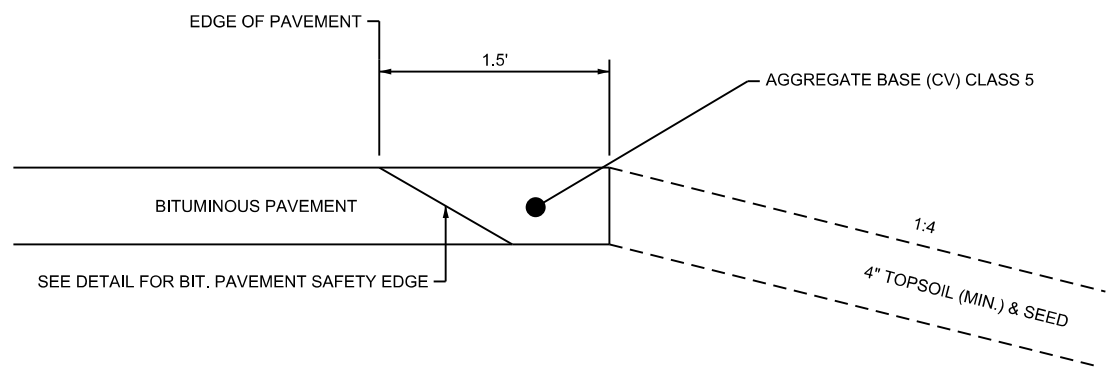
DETAIL A
CONCRETE CURB & GUTTER

REVISIONS	
NO.	DESCRIPTION

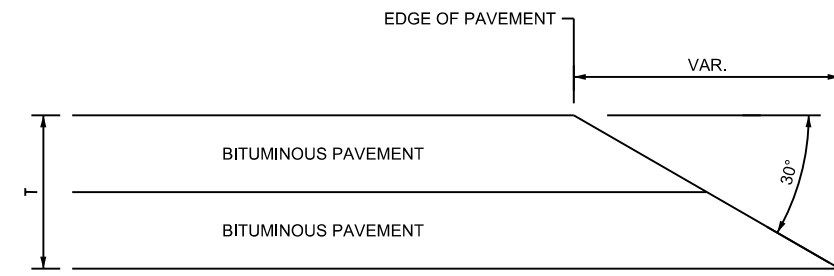
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DETAIL B
RURAL AGGREGATE SHOULDER



BITUMINOUS PAVEMENT SAFETY EDGE
FOR T < 6"

CITY OF BLAINE, MN
**LEXINGTON AVENUE NE AT
131ST AVENUE NE
INTERSECTION IMPROVEMENTS**

TYPICAL SECTIONS

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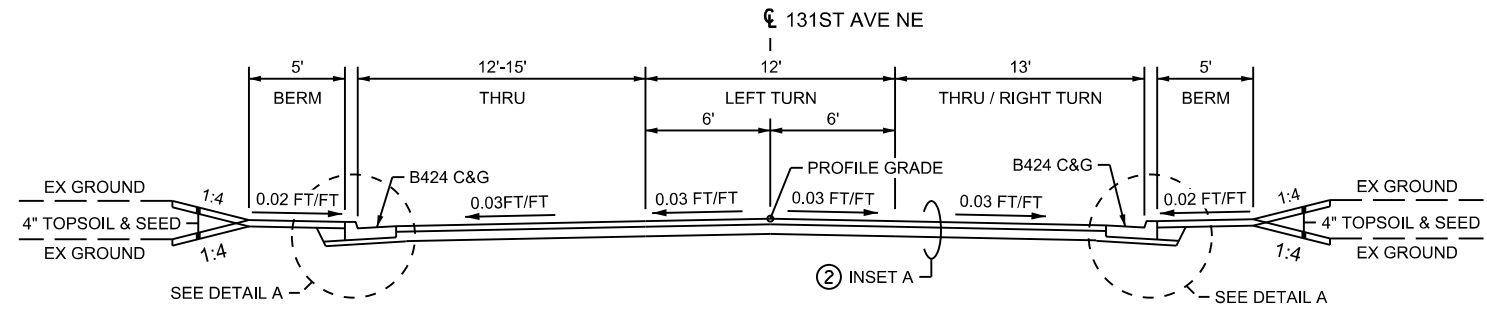
WSB PROJECT NO.:
019869-000

SCALE: AS SHOWN
DESIGN BY: AJF
PLAN BY: AJF
CHECK BY: NEH

NO.	DATE	DESCRIPTION

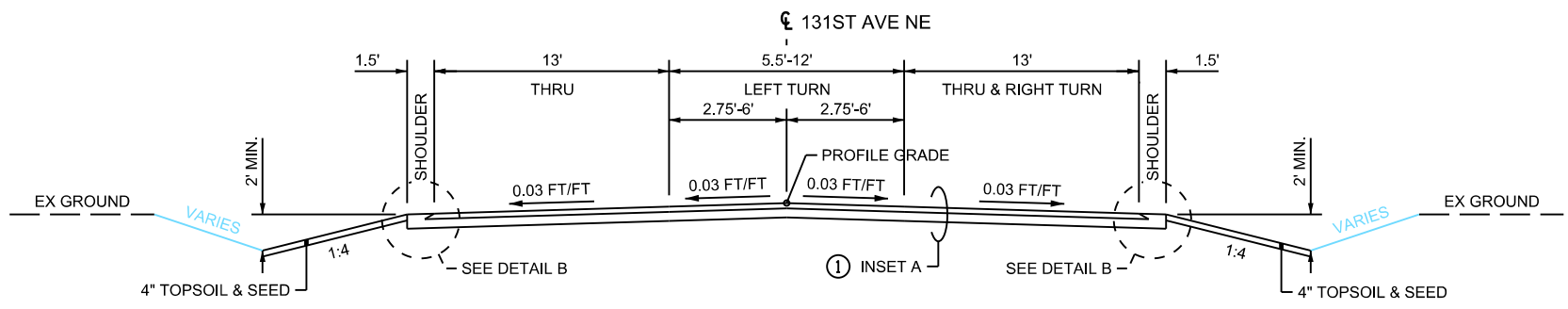
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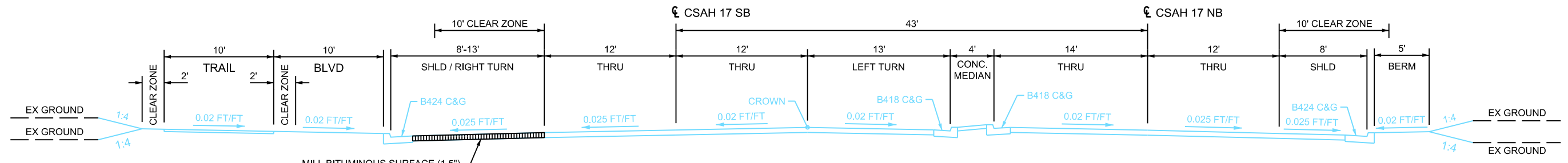
PROPOSED TYPICAL SECTION 3 - 131ST AVENUE NE

STA 199+10 TO STA 199+69.49



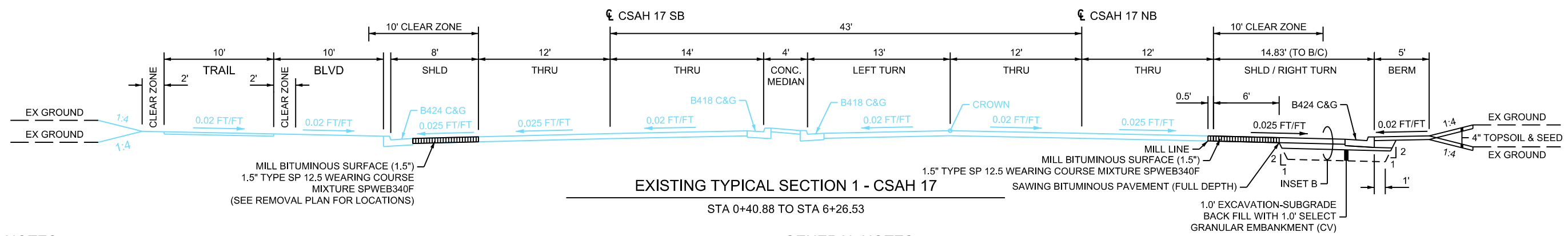
PROPOSED TYPICAL SECTION 1 - 131ST AVENUE NE

STA 197+82.29 TO STA 199+69.49



EXISTING TYPICAL SECTION 2 - CSAH 17

NORTH OF 131ST AVENUE NE



EXISTING TYPICAL SECTION 1 - CSAH 17

STA 0+40.88 TO STA 6+26.53

NOTES

- ① AGGREGATE SURFACING FROM STA 197+82.29 TO STA 198+11, SURFACE ROADWAY WITH 6.0" OF AGGREGATE SURFACING CLASS 2. BEGIN INSET A AT STA 198+11
- ② MILL BITUMINOUS SURFACE (1.5"), PLACE 1.5" TYPE SP 12.5 WEARING COURSE MIXTURE SPWEB340F BEGINNING STA 119+16

GENERAL NOTES

- 1. PREPARATION OF THE EXISTING SUBGRADE SHALL BE IN ACCORDANCE WITH MNDOT SPECIFICATIONS AND SHALL BE INCIDENTAL.
- 2. UNLESS OTHERWISE SPECIFIED, THE SUBGRADE CROSS SLOPE WILL BE THE SAME AS THE FINISHED SLOPE.
- 3. ALL UNSUITABLE MATERIAL SHALL BE REMOVED FROM THE ROADWAY.
- 4. ALL EDGE DIMENSIONS ARE FACE TO FACE OF CURB OR TO THE EDGE OF THE PAVEMENT UNLESS OTHERWISE NOTED.
- 5. COMMON TOPSOIL SHALL BE INCLUDED IN THE COMMON EMBANKMENT (CV).
- 6. ALL EMBANKMENT MATERIAL SHALL BE APPROVED BY THE ENGINEER. ALL CONCRETE AND BITUMINOUS REMOVALS MUST BE DISPOSED OF OFF-SITE. REMOVAL AND DISPOSAL OF EXCESS MATERIAL SHALL BE INCIDENTAL.
- 7. 2' CLEAR ZONE SHALL BE PROVIDED ON EACH SIDE OF THE TRAIL.
- 8. UNLESS OTHERWISE NOTED, AGGREGATE BASE FOR PEDESTRIAN FACILITIES SHALL EXTEND 12" BEYOND THE CONCRETE OR BITUMINOUS SURFACING.

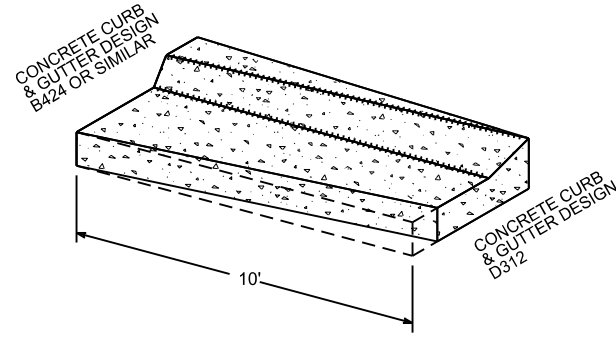
**CITY OF BLAINE, MN
LEXINGTON AVENUE NE AT
131ST AVENUE NE
INTERSECTION IMPROVEMENTS**

TYPICAL SECTIONS

SHEET
7
OF
53
SHEETS

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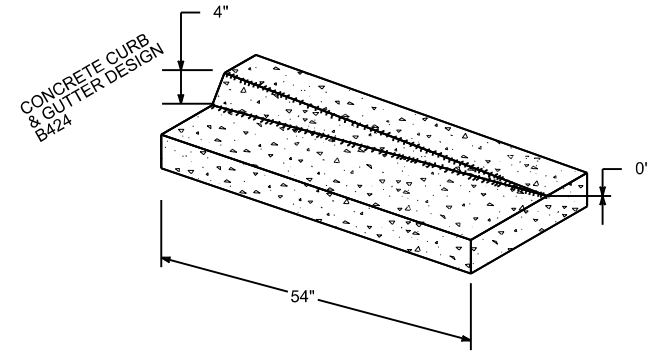


FOR OTHER DIMENSIONS SEE STANDARD PLATE NO. 7100 AND CITY STANDARD PLATE ST-6

PAYMENT SHALL BE MADE AS THE CURB & GUTTER TYPE B424 BY THE FOOT

CURB TRANSITION (B424 TO D312)

NO SCALE



FOR OTHER DIMENSIONS SEE STANDARD PLATE NO. 7100

PAYMENT SHALL BE MADE AS THE CURB & GUTTER TYPE B424 BY THE FOOT

CURB TRANSITION TO 0" HEIGHT

NO SCALE



WSB PROJECT NO.:
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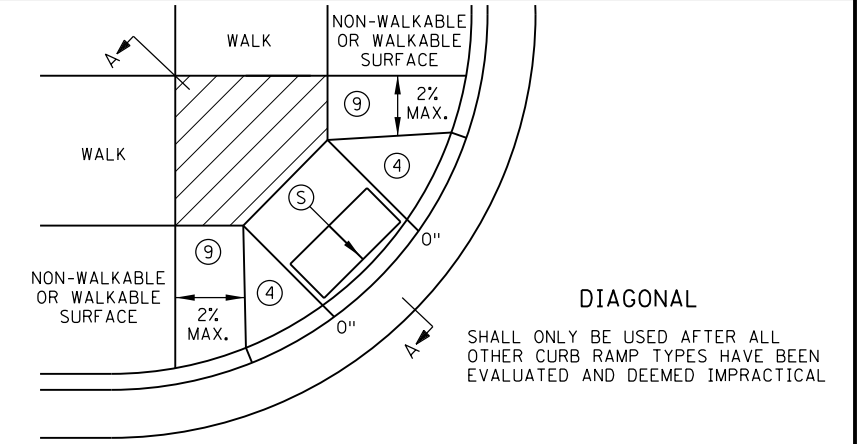
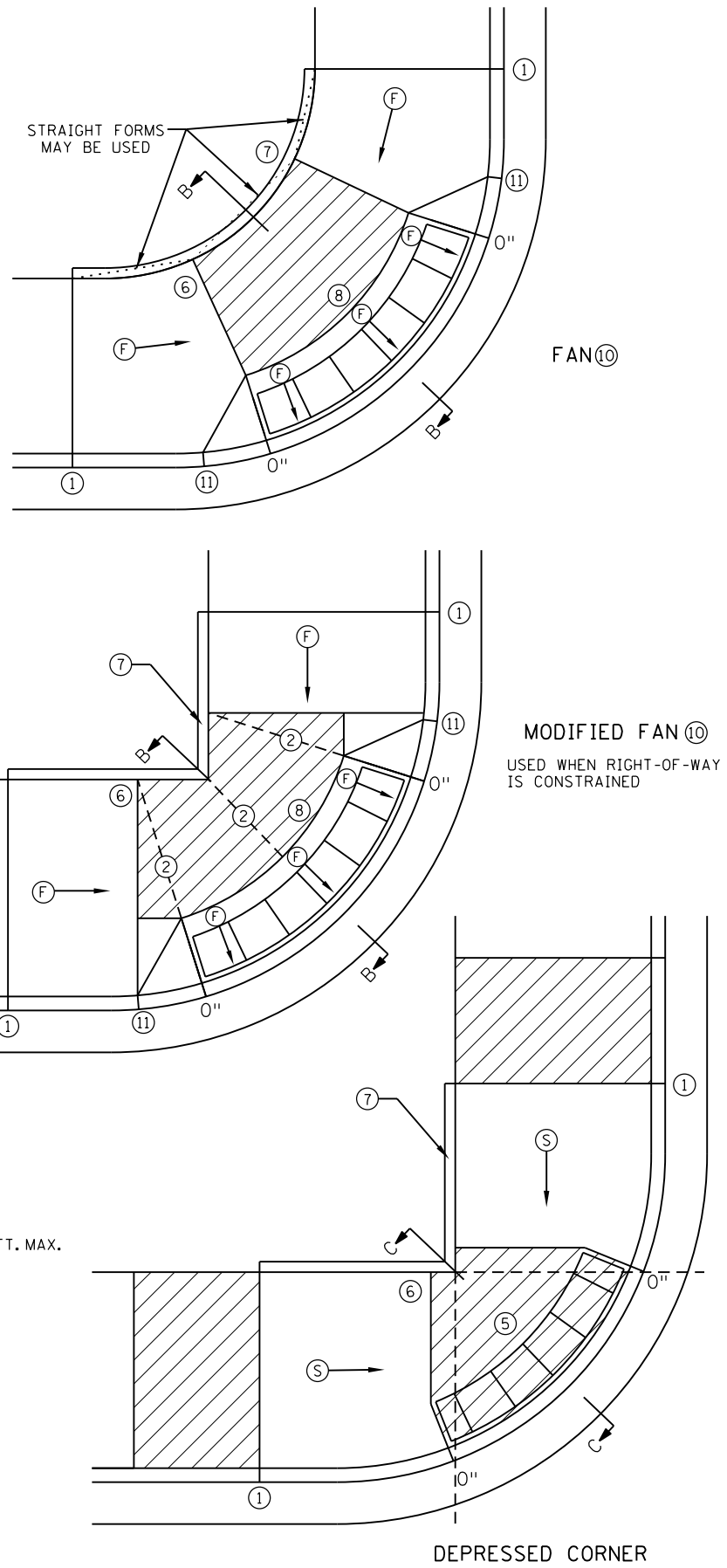
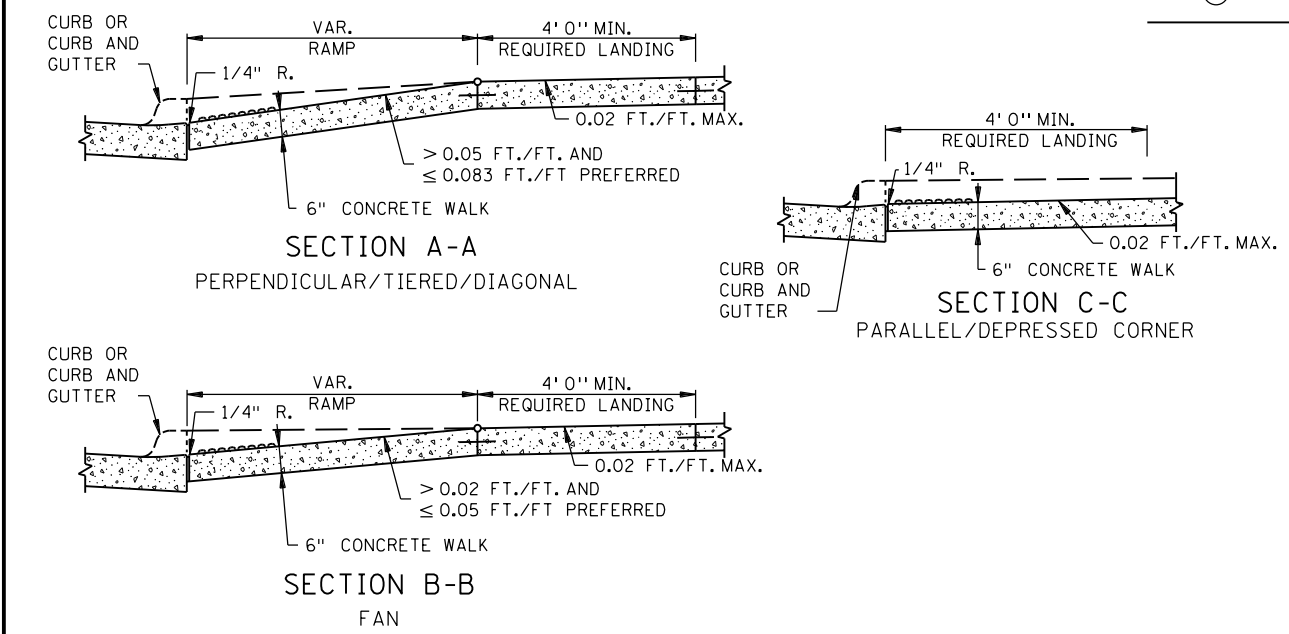
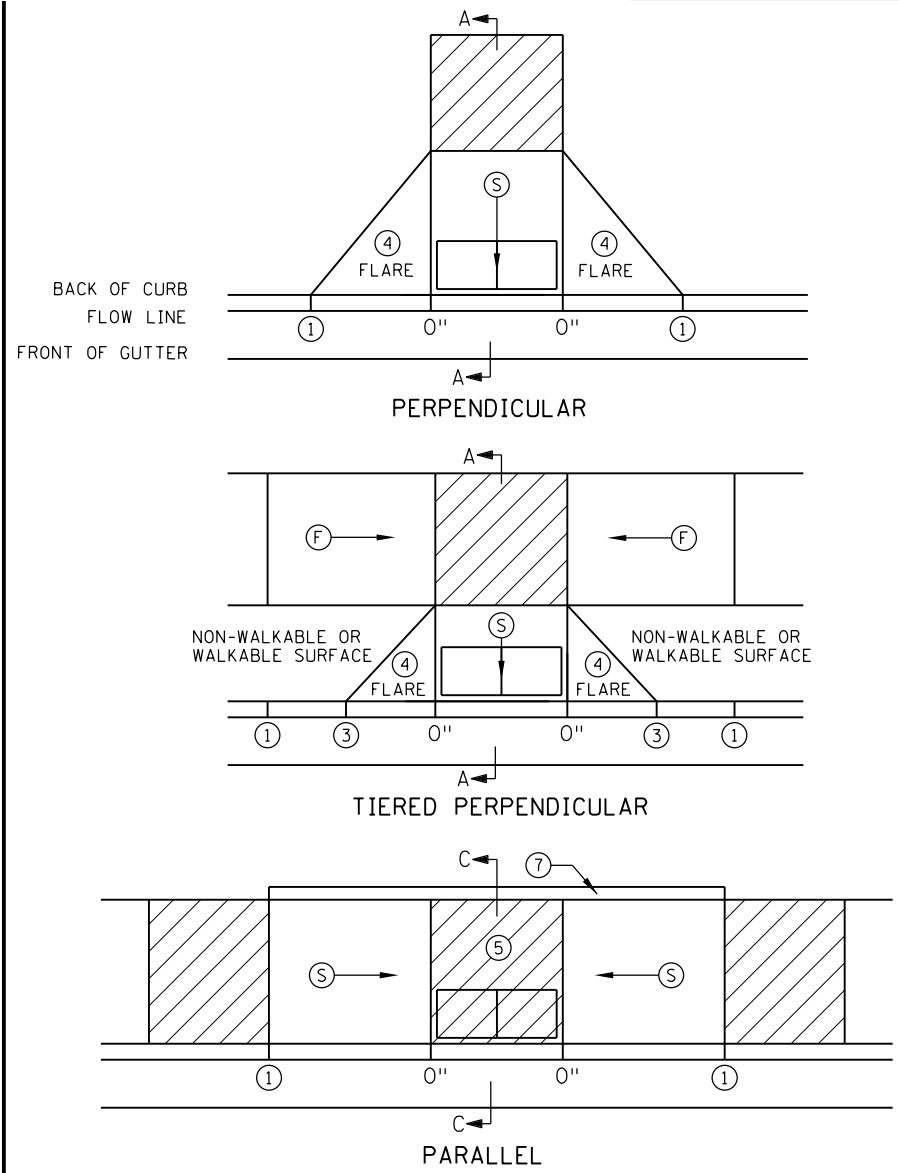
CITY OF BLAINE, MN
**LEXINGTON AVENUE NE AT
131ST AVENUE NE
INTERSECTION IMPROVEMENTS**

MISCELLANEOUS
DETAILS

SHEET
8
OF
53
SHEETS

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- NOTES:**
- LANDINGS SHALL BE LOCATED ANYWHERE THE PEDESTRIAN ACCESS ROUTE (PAR) CHANGES DIRECTION, AT THE TOP OF RAMPS THAT HAVE RUNNING SLOPES GREATER THAN 5.0%, AND IF THE APPROACHING WALK IS INVERSE GRADE GREATER THAN 2%.
 - INITIAL CURB RAMP LANDINGS SHALL BE CONSTRUCTED WITHIN 15' FROM THE BACK OF CURB, WITH 6' FROM THE BACK OF CURB BEING THE PREFERRED DISTANCE, ONLY APPLICABLE WHEN THE INITIAL RAMP RUNNING SLOPE IS OVER 5.0%.
 - SECONDARY CURB RAMP LANDINGS ARE REQUIRED FOR EVERY 30" OF VERTICAL RISE WHEN THE LONGITUDINAL RUNNING SLOPE IS GREATER THAN 5.0%.
 - CONTRACTION JOINTS SHALL BE CONSTRUCTED ALONG ALL GRADE BREAKS WITHIN THE PAR. 1/4" DEEP VISUAL JOINTS SHALL BE USED AT THE TOPS OF CONCRETE FLARES ADJACENT TO WALKABLE SURFACES.
 - ALL GRADE BREAKS WITHIN THE PAR SHALL BE PERPENDICULAR TO THE PATH OF TRAVEL, THUS BOTH SIDES OF A SLOPED WALKING SURFACE MUST BE EQUAL LENGTH. (EXCEPT AS STATED IN 6)
 - TO ENSURE RAMPS AND LANDINGS ARE PROPERLY CONSTRUCTED, ALL INITIAL LANDINGS AT A TOP OF A RAMPED SURFACE (RUNNING SLOPE GREATER THAN 2%) SHALL BE FORMED AND PLACED SEPARATELY IN AN INDEPENDENT CONCRETE POUR. FOLLOW SIDEWALK REINFORCEMENT DETAILS ON SHEET 6 OF 6 FOR ALL SEPARATELY POURED INITIAL LANDINGS.
 - WHEN SIDEWALK IS AT BACK OF CURB, TOP OF CURB SHALL MATCH PROPOSED ADJACENT WALK GRADE. MAINTAIN POSITIVE BOULEVARD DRAINAGE TO TOP OF CURB.
 - ALL RAMP TYPES SHOULD HAVE A MINIMUM 3' LONG RAMP LENGTH.
 - 4' MINIMUM WIDTH OF DETECTABLE WARNING IS REQUIRED FOR ALL RAMPS. DETECTABLE WARNINGS SHALL CONTINUOUSLY EXTEND FOR A MIN. OF 24" IN THE PATH OF TRAVEL. DETECTABLE WARNING TO COVER THE ENTIRE PAR WIDTH OF SHARED-USE PATHS AND THE ENTIRE PAR WIDTH OF THE WALK WITH THE EXCEPTION OF 3" MAXIMUM ON EACH OUTSIDE EDGE WHICH ENSURES THE DETECTABLE WARNINGS ARE ENCASED IN CONCRETE WHEN ADJACENT TO TURF. WHEN ADJACENT TO CONCRETE FLARES 0" - 3" OFFSET IS ALLOWED.
 - WHEN DESIGNING OR ORDERING RECTANGULAR DETECTABLE WARNING SURFACES SHOULD BE 6" LESS THAN THE INCOMING PAR. ARC LENGTH OF THE RADIAL DETECTABLE WARNINGS SHOULD NOT BE GREATER THAN 20 FEET.
 - RECTANGULAR DETECTABLE WARNINGS SHALL BE SETBACK 3" FROM THE BACK OF CURB. RADIAL DETECTABLE WARNINGS SHALL BE SETBACK 3" MINIMUM TO 6" MAXIMUM FROM THE BACK OF CURB.
- 1 MATCH FULL HEIGHT CURB.
 - 2 4' MINIMUM DEPTH LANDING REQUIRED ACROSS TOP OF RAMP.
 - 3 3" HIGH CURB WHEN USING A 3' LONG RAMP, 4" HIGH CURB WHEN USING A 4' LONG RAMP.
 - 4 SEE SHEET 4 OF 6, TYPICAL SIDE TREATMENT OPTIONS, FOR DETAILS ON FLARES AND RETURNED CURBS.
 - 5 DETECTABLE WARNINGS MAY BE PART OF THE 4' X 4' MIN. LANDING AREA IF IT IS NOT FEASIBLE TO CONSTRUCT THE LANDING OUTSIDE OF THE DETECTABLE WARNING AREA.
 - 6 THE GRADE BREAK SHALL BE PERPENDICULAR TO THE BACK OF WALK, THIS WILL ENSURE THAT THE GRADE BREAK IS PERPENDICULAR TO THE DIRECTION OF TRAVEL. (TYPICAL FOR ALL)
 - 7 WHEN ADJACENT TO GRASS, GRADING SHALL ALWAYS BE USED WHEN FEASIBLE. V CURB, IF USED, SHALL BE PLACED OUTSIDE THE SIDEWALK LIMITS WHEN RIGHT OF WAY ALLOWS. WHEN ADJACENT TO PARKING LOTS, CONCRETE OR BITUMINOUS TAPERS LESS THAN 5% RUNNING SLOPE SHOULD BE USED OVER V CURB TO REDUCE TRIPPING HAZARDS AND FACILITATE SNOW & ICE REMOVAL.
 - 8 A 7' MIN TOP RADIUS GRADE BREAK IS REQUIRED TO BE CONSTRUCTIBLE.
 - 9 PAVE FULL WALK WIDTH.
 - 10 "S" SLOPES ON FANS SHALL ONLY BE USED WHEN ALL OTHER FEASIBLE OPTIONS HAVE BEEN EVALUATED AND DEEMED IMPRACTICAL.
 - 11 INTERMEDIATE CURB HEIGHTS TAPER SHALL RISE AT 8-10% TO A MINIMUM 3" CURB HEIGHT. REDUCE INTERMEDIATE CURB HEIGHT TO 2+ INCHES IF NECESSARY TO MATCH ADJACENT BOULEVARD OR SIDEWALK GRADES.

LEGEND	
THESE LONGITUDINAL SLOPE RANGES SHALL BE THE STARTING POINT. IF SITE CONDITIONS WARRANT, LONGITUDINAL SLOPES UP TO 8.3% OR FLATTER ARE ALLOWED.	
(S)	INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND THE CROSS SLOPE SHALL NOT EXCEED 2.0%.
(F)	INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE GREATER THAN 2.0% AND LESS THAN 5.0% IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%.
(Hatched Box)	LANDING AREA - 4' X 4' MIN. (5' X 5' MIN. PREFERRED) DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS. LANDING SHALL BE FULL WIDTH OF INCOMING PAR.
X"	CURB HEIGHT

REVISION:
APPROVED: 11-04-2021
Jeff J. Perkins
JEFFREY PERKINS
OPERATIONS DIVISION

MINNESOTA
DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.250 **1 OF 6**

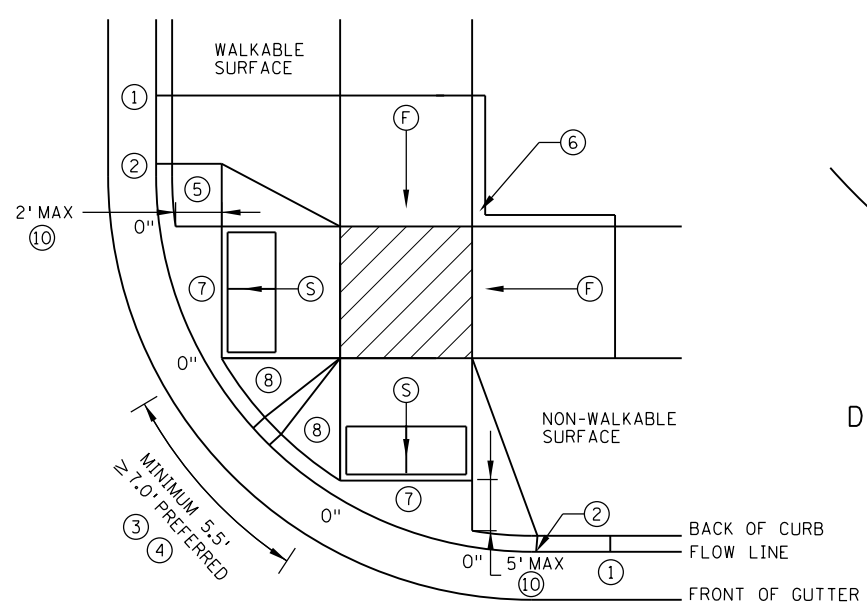
Tom Styrbicki
THOMAS STYRBICKI
STATE DESIGN ENGINEER

APPROVED: 11-04-2021
REVISED:

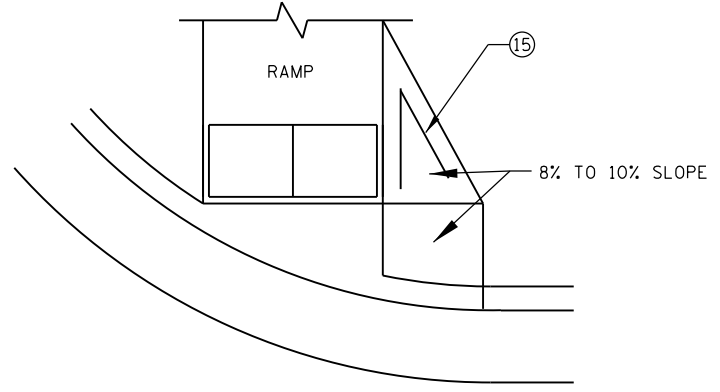
PEDESTRIAN CURB RAMP DETAILS

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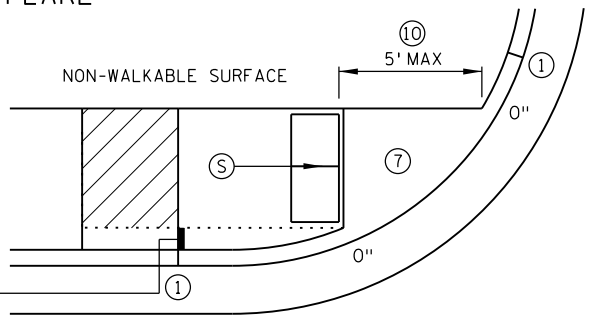


COMBINED DIRECTIONAL

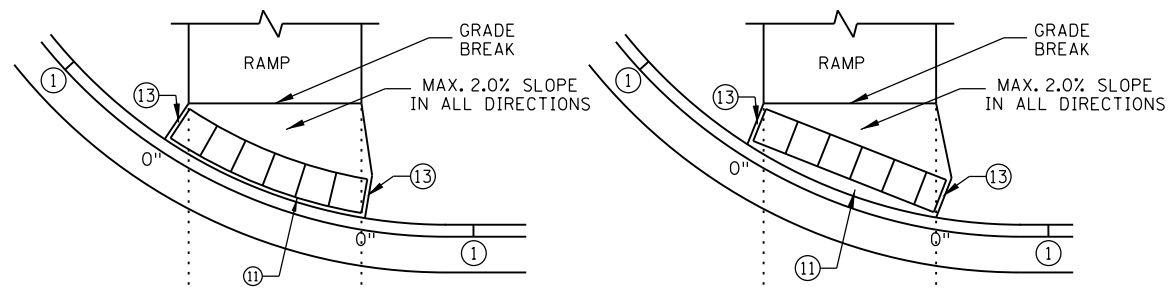


DIRECTIONAL RAMP WALKABLE FLARE

IF NON-CONCRETE BLVD. IS CONSTRUCTED AND IS LESS THAN 2' IN WIDTH AT TOP OF CURB TRANSITION, PAVE CONCRETE RAMP WIDTH TO ADJACENT BACK OF CURB.

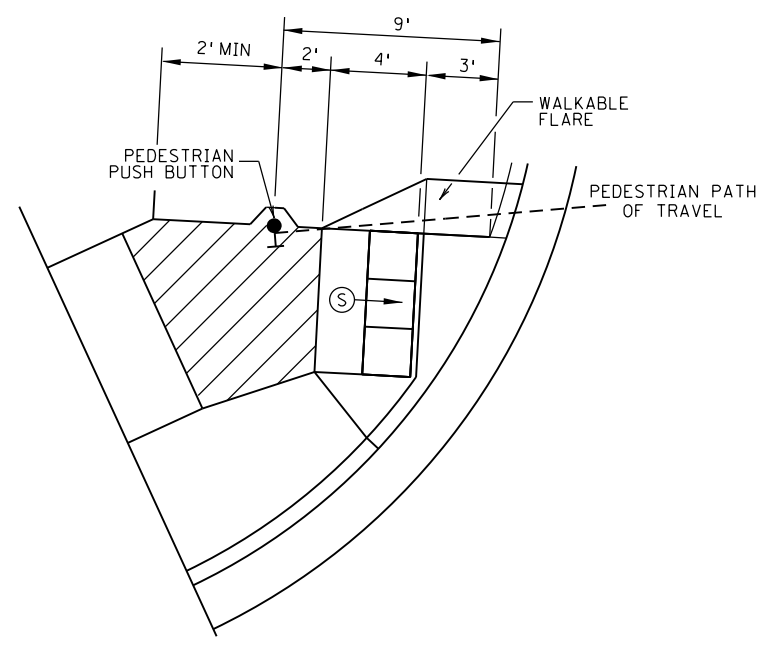


STANDARD ONE-WAY DIRECTIONAL ⑨



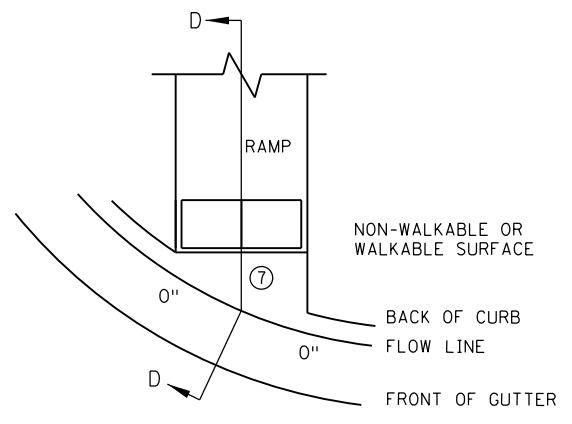
DETECTABLE WARNING PLACEMENT WHEN SETBACK CRITERIA IS EXCEEDED ⑫

ONE-WAY DIRECTIONAL WITH DETECTABLE WARNING AT BACK OF CURB

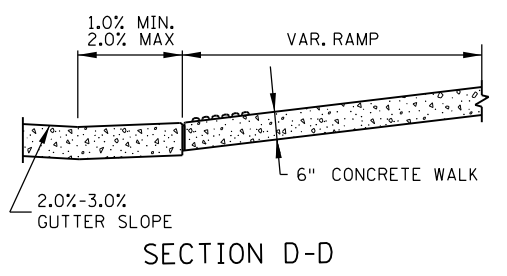


SEMI-DIRECTIONAL RAMP ③④⑨

3' DOME SETBACK, 4' LONG RAMP AND PUSH BUTTON 9' FROM THE BACK OF CURB
 PRIMARILY USED FOR APS APPLICATIONS WHERE THE PAR DOES NOT CONTINUE PAST THE PUSH BUTTON (DEAD-END SIDEWALK)



CURB FOR DIRECTIONAL RAMPS ⑭



SECTION D-D

NOTES:

- LANDINGS SHALL BE LOCATED ANYWHERE THE PEDESTRIAN ACCESS ROUTE (PAR) CHANGES DIRECTION, AT THE TOP OF RAMPS THAT HAVE RUNNING SLOPES GREATER THAN 5.0%, AND IF THE APPROACHING WALK IS INVERSE GRADE.
- INITIAL CURB RAMP LANDINGS SHALL BE CONSTRUCTED WITHIN 15' FROM THE BACK OF CURB, WITH 6' FROM THE BACK OF CURB BEING THE PREFERRED DISTANCE, ONLY APPLICABLE WHEN THE INITIAL RAMP RUNNING SLOPE IS OVER 5.0%.
- SECONDARY CURB RAMP LANDINGS ARE REQUIRED FOR EVERY 30" OF VERTICAL RISE WHEN THE LONGITUDINAL SLOPE IS GREATER THAN 5.0%.
- CONTRACTION JOINTS SHALL BE CONSTRUCTED ALONG ALL GRADE BREAKS WITHIN THE PAR. 1/4" DEEP VISUAL JOINTS SHALL BE USED AT THE TOP GRADE BREAK OF CONCRETE FLARES ADJACENT TO WALKABLE SURFACES.
- ALL GRADE BREAKS WITHIN THE PAR SHALL BE PERPENDICULAR TO THE PATH OF TRAVEL. THUS BOTH SIDES OF A SLOPED WALKING SURFACE MUST BE EQUAL LENGTH.
- TO ENSURE INITIAL RAMPS AND INITIAL LANDINGS ARE PROPERLY CONSTRUCTED, LANDINGS SHALL BE CAST SEPARATELY, FOLLOW SIDEWALK REINFORCEMENT DETAILS ON SHEET 6 AND THE ADA SPECIAL PROVISION (PROSECUTION OF WORK).

- TOP OF CURB SHALL MATCH PROPOSED ADJACENT WALK GRADE.
- WHEN THE BOULEVARD IS 4' WIDE OR LESS, THE TOP OF CURB TAPER SHALL MATCH THE RAMP SLOPES TO REDUCE NEGATIVE BOULEVARD SLOPES FROM THE TOP BACK OF CURB TO THE PAR.
- ALL RAMP TYPES SHOULD HAVE A MINIMUM 3' LONG RAMP LENGTH.
- 4' MINIMUM WIDTH OF DETECTABLE WARNING IS REQUIRED FOR ALL RAMPS. DETECTABLE WARNINGS SHALL CONTINUOUSLY EXTEND FOR A MIN. OF 24" IN THE PATH OF TRAVEL. DETECTABLE WARNING TO COVER THE ENTIRE PAR WIDTH OF SHARED-USE PATHS AND THE ENTIRE PAR WIDTH OF THE WALK WITH THE EXCEPTION OF 3" MAXIMUM ON EACH OUTSIDE EDGE WHICH ENSURES THE DETECTABLE WARNINGS ARE ENCASED IN CONCRETE WHEN ADJACENT TO TURF. WHEN ADJACENT TO CONCRETE FLARES 0" - 3" OFFSET IS ALLOWED.
- WHEN DESIGNING OR ORDERING RECTANGULAR DETECTABLE WARNING SURFACES SHOULD BE 6" LESS THAN THE INCOMING PAR. ARC LENGTH OF THE RADIAL DETECTABLE WARNINGS SHOULD NOT BE GREATER THAN 20 FEET.
- RADIAL DETECTABLE WARNINGS SHALL BE SETBACK 3" MINIMUM TO 6" MAXIMUM FROM THE BACK OF CURB. SEE NOTES ⑩ & ⑪ FOR INFORMATION REGARDING RECTANGULAR DETECTABLE WARNING PLACEMENT.

- ① MATCH FULL CURB HEIGHT.
- ② 3" HIGH CURB WHEN USING A 3' LONG RAMP
4" HIGH CURB WHEN USING A 4' LONG RAMP.
- ③ 3" MINIMUM CURB HEIGHT (5.5' MIN. DISTANCE REQUIRED BETWEEN DOMES)
4" PREFERRED (7' MIN. DISTANCE REQUIRED BETWEEN DOMES).
- ④ THE "BUMP" IN BETWEEN THE RAMPS SHOULD NOT BE IN THE PATH OF TRAVEL FOR COMBINED DIRECTIONAL RAMPS. IF THIS OCCURS MODIFY THE RAMP LOCATION OR SWITCH RAMP TO A FAN/DEPRESSED CORNER.
- ⑤ WHEN USING CONCRETE PAVED FLARES ON THE OUTSIDE OF DIRECTIONAL RAMPS, AND ADJACENT TO A WALKABLE SURFACE, DIRECTIONAL RAMP FLARES SHALL BE USED. SEE THE DETAIL ON THIS SHEET.
- ⑥ GRADING SHALL ALWAYS BE USED WHEN FEASIBLE. V CURB, IF USED, SHALL BE PLACED OUTSIDE THE SIDEWALK LIMITS WHEN RIGHT OF WAY ALLOWS. WHEN ADJACENT TO PARKING LOTS, CONCRETE OR BITUMINOUS TAPERS SHOULD BE USED OVER V CURB TO REDUCE TRIPPING HAZARDS AND FACILITATE SNOW & ICE REMOVAL.
- ⑦ MAX. 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK AND DRAIN TO FLOW LINE. SHALL BE CONSTRUCTED INTEGRAL WITH CURB AND GUTTER.
- ⑧ 8% TO 10% WALKABLE FLARE.
- ⑨ PLACE DOMES AT THE BACK OF CURB WHEN ALLOWABLE SETBACK CRITERIA IS EXCEEDED.
- ⑩ FRONT EDGE OF DETECTABLE WARNING SHALL BE SET BACK 2' MAXIMUM WHEN ADJACENT TO WALKABLE SURFACE, AND 5' MAXIMUM WHEN ADJACENT TO NON-WALKABLE SURFACE WITH ONE CORNER SET 3" FROM BACK OF CURB. A WALKABLE SURFACE IS DEFINED AS A PAVED SURFACE ADJACENT TO A CURB RAMP WITHOUT RAISED OBSTACLES THAT COULD MISTAKENLY BE TRAVERSED BY A USER WHO IS VISUALLY IMPAIRED.
- ⑪ RECTANGULAR DETECTABLE WARNINGS MAY BE SETBACK UP TO 9" FROM THE BACK OF CURB WITH CORNERS SET 3" FROM BACK OF CURB. IF 9" SETBACK IS EXCEEDED USE RADIAL DETECTABLE WARNINGS.
- ⑫ FOR DIRECTIONAL RAMPS WITH THE DETECTABLE WARNINGS PLACED AT THE BACK OF CURB, THE DETECTABLE WARNINGS SHALL COVER THE ENTIRE WIDTH OF THE WALK/PATH. THIS ENSURES A DETECTABLE EDGE AND HELPS ELIMINATE THE CURB TAPER OBSTRUCTING THE PATH OF PEDESTRIAN TRAVEL.
- ⑬ THE CONCRETE WALK SHALL BE FORMED AND CONSTRUCTED PERPENDICULAR TO THE BACK OF CURB. MAINTAIN 3" BETWEEN EDGE OF DOMES AND EDGE OF CONCRETE.
- ⑭ TO BE USED FOR ALL DIRECTIONAL RAMPS, EXCEPT WHERE DOMES ARE PLACED ALONG THE BACK OF CURB.
- ⑮ PLACE 2 NO. 4 BARS 4 INCHES FROM SIDE OF FORMS WITH A MINIMUM 2 INCHES OF CONCRETE COVER ALONG EACH SIDE OF FLARE (INCIDENTAL).

LEGEND	
THESE LONGITUDINAL SLOPE RANGES SHALL BE THE STARTING POINT. IF SITE CONDITIONS WARRANT, LONGITUDINAL SLOPES UP TO 8.3% OR FLATTER ARE ALLOWED.	
(S)	INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND THE CROSS SLOPE SHALL NOT EXCEED 2.0%.
(F)	INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE GREATER THAN 2.0% AND LESS THAN 5.0% IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%.
(Hatched Box)	LANDING AREA - 4' X 4' MIN. (5' X 5' MIN. PREFERRED) DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS. LANDING SHALL BE FULL WIDTH OF INCOMING PAR.
X"	CURB HEIGHT

REVISION:

APPROVED: 11-04-2021

Jeff G. Perkins
 JEFFREY PERKINS
 OPERATIONS DIVISION

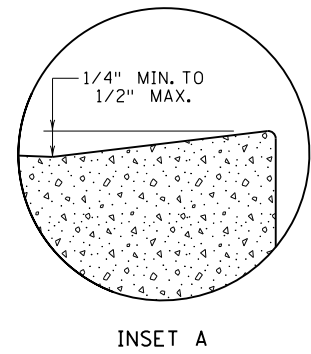
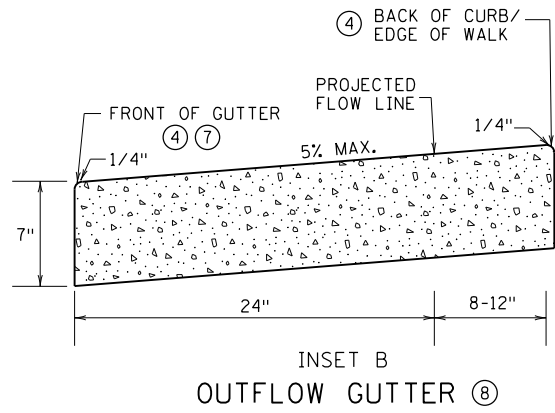
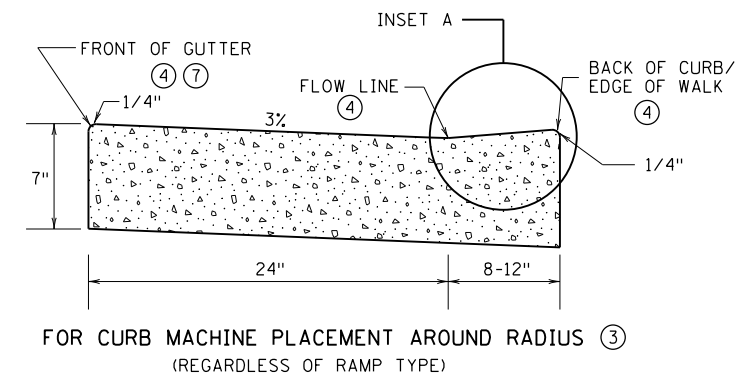
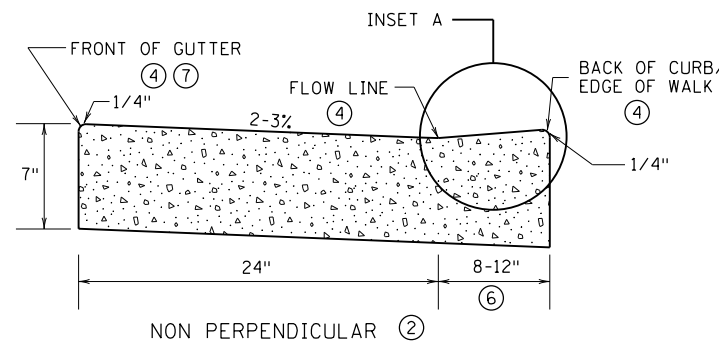
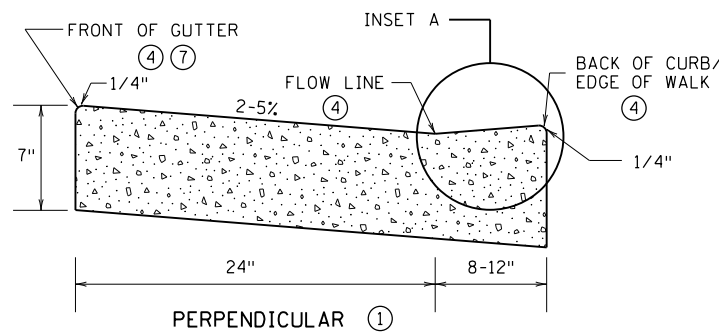
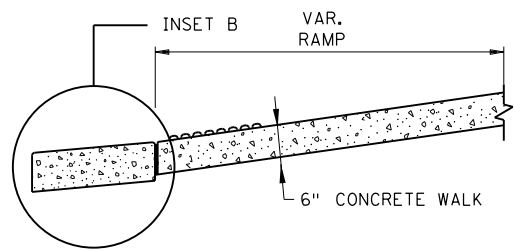
<p>MINNESOTA DEPARTMENT OF TRANSPORTATION</p>	<p>STANDARD PLAN 5-297.250</p> <p>2 OF 6</p>
	<p>APPROVED: 11-04-2021</p> <p>REVISED:</p>

Thomas Styrbicki
 THOMAS STYRBICKI
 STATE DESIGN ENGINEER

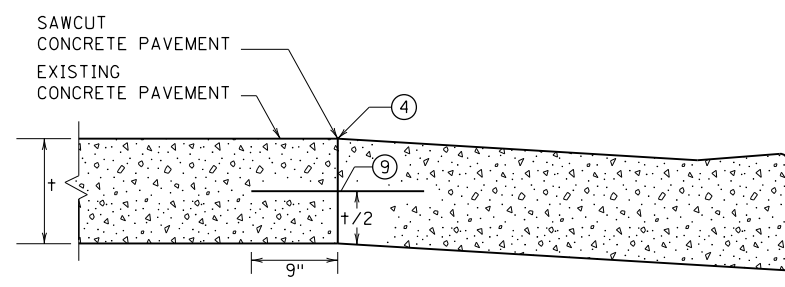
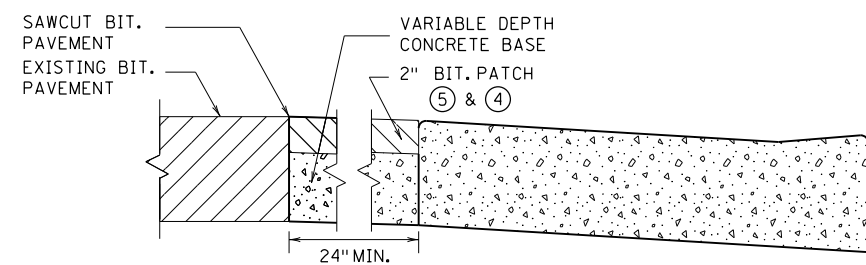
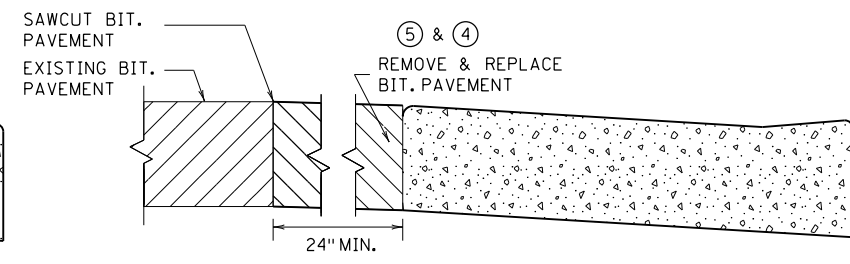
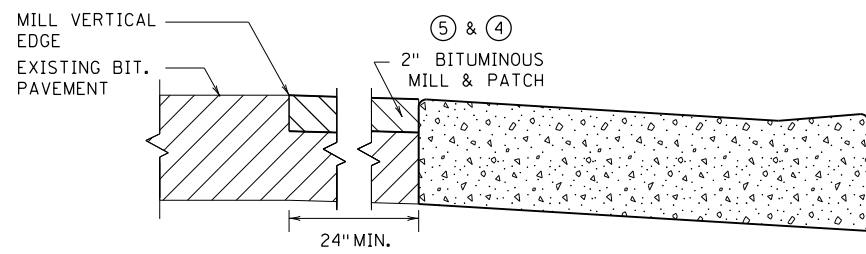
PEDESTRIAN CURB RAMP DETAILS

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PEDESTRIAN ACCESS ROUTE CURB & GUTTER DETAIL

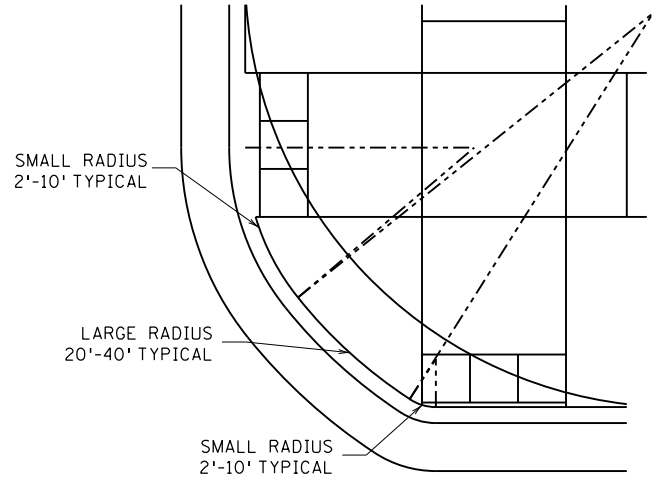
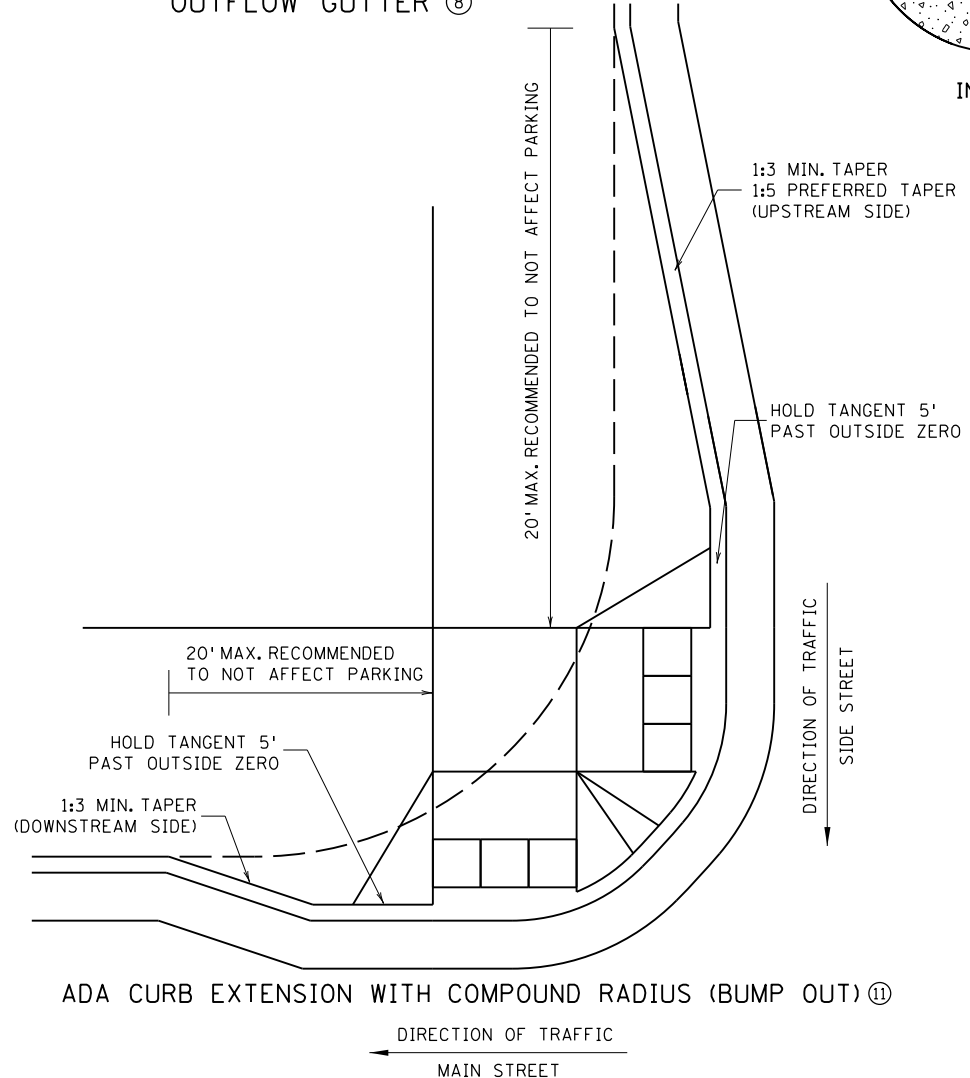


ONLY ALLOWED PER ENGINEER'S APPROVAL

PAVEMENT TREATMENT OPTIONS IN FRONT OF CURB & GUTTER
FOR USE ON CURB RAMP RETROFITS

NOTES:

- POSITIVE FLOW LINE DRAINAGE SHALL BE MAINTAINED THROUGH THE PEDESTRIAN ACCESS ROUTE (PAR) AT A 2% MAXIMUM. NO PONDING SHALL BE PRESENT IN THE PAR.
- ANY VERTICAL LIP THAT OCCURS AT THE FLOW LINE SHALL NOT BE GREATER THAN 1/4 INCH.
- ① FOR USE AT CURB CUTS WHERE THE PEDESTRIAN'S PATH OF TRAVEL IS ASSUMED PERPENDICULAR TO THE GUTTER FLOW LINE. RAMP TYPES INCLUDE: PERPENDICULAR, TIERED PERPENDICULAR, PARALLEL, AND DIAGONAL RAMPS.
- ② FOR USE AT CURB RAMPS WHERE THE PEDESTRIAN'S PATH OF TRAVEL IS ASSUMED NON PERPENDICULAR TO THE GUTTER FLOW LINE. RAMP TYPES INCLUDE: FANS & DEPRESSED CORNERS.
- ③ BEGIN GUTTER SLOPE TRANSITION 10' OUTSIDE OF ALL CURB RAMPS.
- ④ THERE SHALL BE NO VERTICAL DISCONTINUITIES GREATER THAN 1/4".
- ⑤ ELEVATION CHANGE TAKES PLACE FROM THE EXISTING TO NEW FRONT OF GUTTER. PATCH IS USED TO MATCH THE NEW GUTTER FACE INTO THE EXISTING ROADWAY.
- ⑥ VARIABLE WIDTH FOR DIRECTIONAL CURB APPLICATIONS. SEE SHEET 2 FOR DIRECTIONAL CURB SLOPE REQUIREMENTS.
- ⑦ TOP FRONT OF GUTTER SHALL BE CONSTRUCTED FLUSH WITH PROPOSED ADJACENT PAVEMENT ELEVATION. TOP 1.5" OF THE GUTTER FACE MUST BE A FORMED EDGE. PAR GUTTER SHALL NOT BE OVERLAID.
- ⑧ SHOULD BE USED AT VERTICALLY CONSTRAINED AREAS WHEN AT A DRAINAGE HIGH POINT OR SUPER ELEVATED ROADWAY SEGMENTS.
- ⑨ DRILL AND GROUT NO. 4 EPOXY-COATED 18" LONG TIE BARS AT 30" CENTER TO CENTER INTO EXISTING CONCRETE PAVEMENT 1' MINIMUM FROM ALL JOINTS.
- ⑩ HELPS PROVIDE TWO SEPARATE RAMPS, REDUCES THE DOME SETBACK LENGTH AND MINIMIZES DIRECTIONAL CURB. THIS RADIUS DESIGN CLOSELY FOLLOWS THE TURNING VEHICLE PATH WHILE OPTIMIZING CURB RAMP LENGTH.
- ⑪ CURB EXTENSIONS SHOULD BE USED IN VERTICALLY CONSTRAINED AREAS, USUALLY IN DOWNTOWN ROADWAY SEGMENTS WHERE ON-STREET PARKING IS AVAILABLE. CURB EXTENSIONS SHOULD BE CONSIDERED FOR APS INTERSECTIONS WHERE SPACE IS LIMITED. PUSH BUTTONS MUST MEET APS CRITERIA AS DESCRIBED IN THE PUSH BUTTON LOCATION DETAIL SHEET.



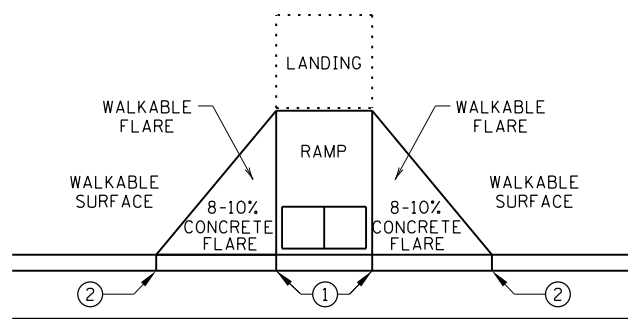
REVISION:
APPROVED: 11-04-2021 <i>Jeff J. Perkins</i> JEFFREY PERKINS OPERATIONS DIVISION

	STANDARD PLAN 5-297.250	3 OF 6
	APPROVED: 11-04-2021 REVISIONS:	
DEPARTMENT OF TRANSPORTATION	 THOMAS STYRBICKI STATE DESIGN ENGINEER	

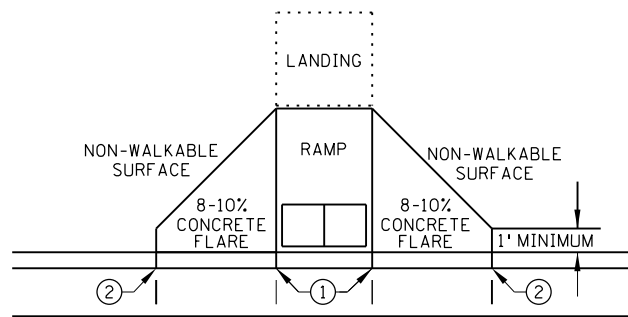
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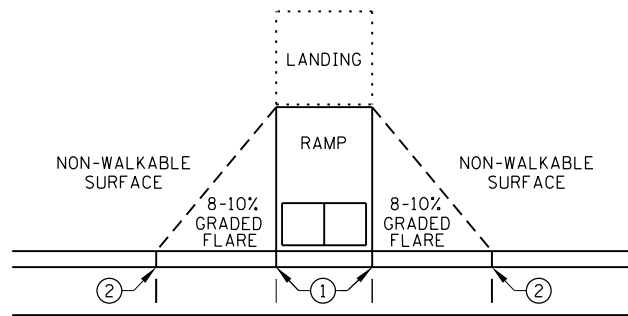
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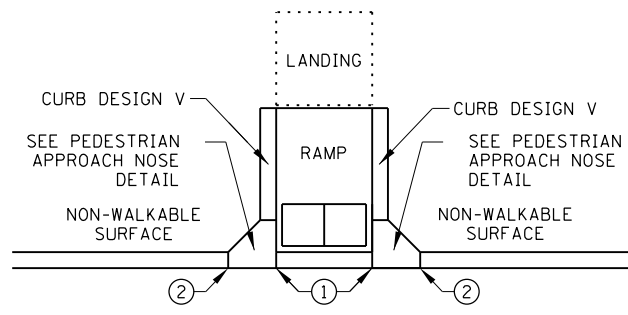
PAVED FLARES ADJACENT TO WALKABLE SURFACE



PAVED FLARES ADJACENT TO NON-WALKABLE SURFACE

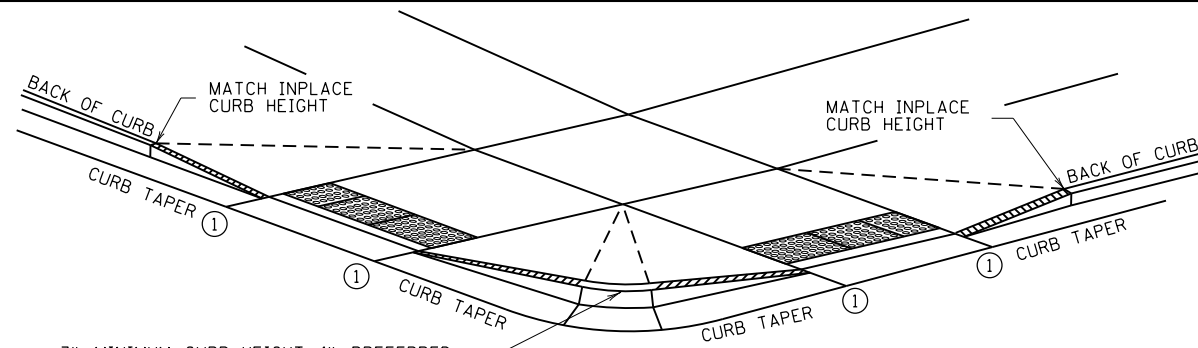


GRADED FLARES



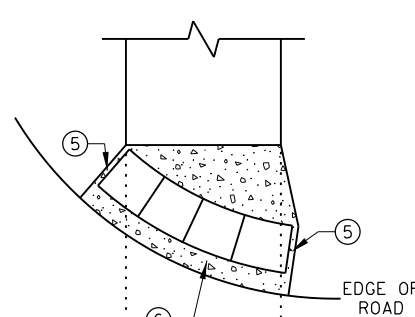
RETURNED CURB ④

TYPICAL SIDE TREATMENT OPTIONS ③ ⑩

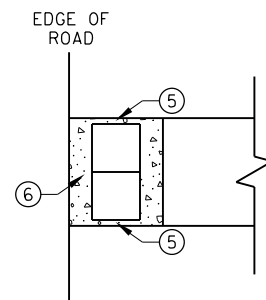


3" MINIMUM CURB HEIGHT, 4" PREFERRED (MEASURED AT FRONT FACE OF CURB) FOR A MIN. 6" LENGTH (MEASURED ALONG FLOW LINE)

DETECTABLE EDGE WITH CURB AND GUTTER ⑦

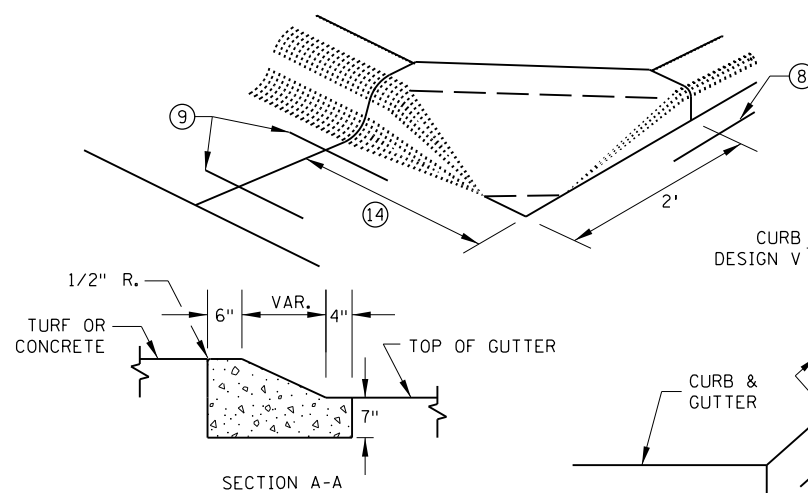


RADIAL DETECTABLE WARNING

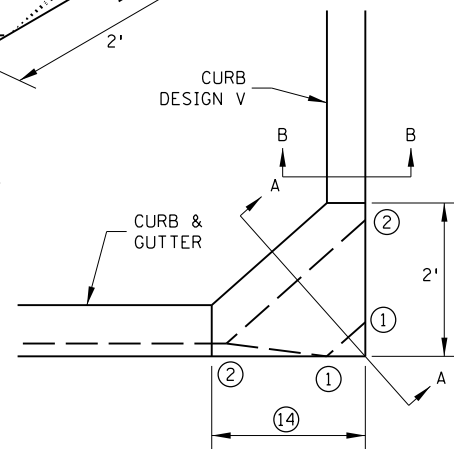


RECTANGULAR DETECTABLE WARNING

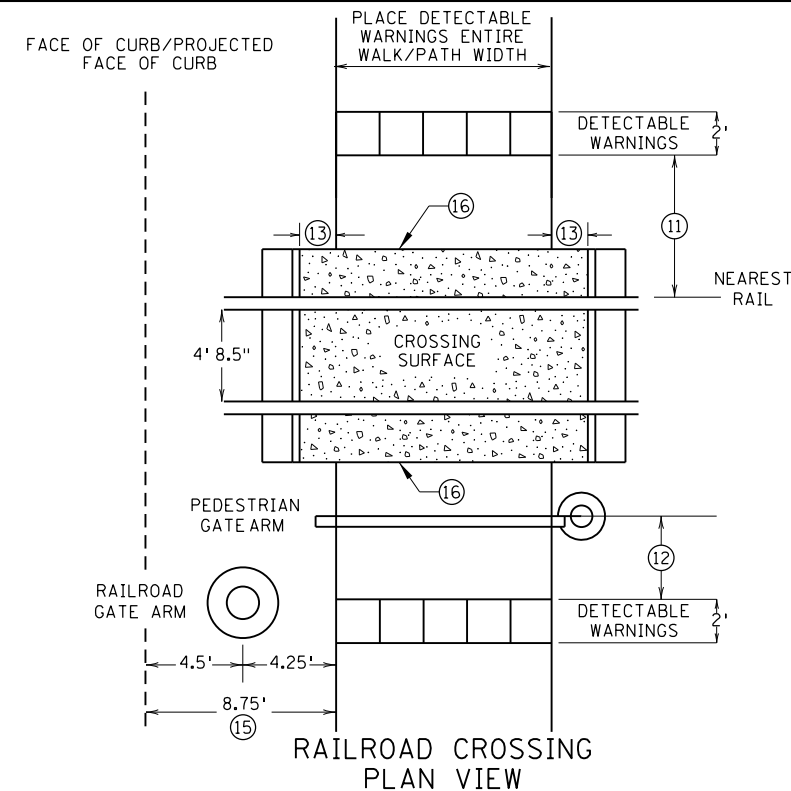
DETECTABLE EDGE WITHOUT CURB AND GUTTER



SECTION A-A



PEDESTRIAN APPROACH NOSE DETAIL (FOR RETURNED CURB SIDE TREATMENT)



RAILROAD CROSSING PLAN VIEW

NOTES:

- INTERMEDIATE CURB HEIGHTS TAPER SHALL RISE AT 8-10% TO A MINIMUM 3 INCH CURB HEIGHT. INCREASE CURB TAPER LENGTH AT LESS THAN 8% OR REDUCE INTERMEDIATE CURB HEIGHT TO 2+ INCHES IF NECESSARY TO MATCH ADJACENT BOULEVARD OR SIDEWALK GRADES.
- SEE STANDARD PLATE 7038 AND THIS SHEET FOR ADDITIONAL DETAILS ON DETECTABLE WARNING.
- A WALKABLE SURFACE IS DEFINED AS A PAVED SURFACE ADJACENT TO A CURB RAMP WITHOUT RAISED OBSTACLES THAT COULD MISTAKENLY BE TRAVERSED BY A USER WHO IS VISUALLY IMPAIRED.
- CONCRETE FLARE LENGTHS ADJACENT TO NON-WALKABLE SURFACES SHOULD BE LESS THAN 8' LONG MEASURED ALONG THE RAMPS FROM THE BACK OF CURB.
- ① 0" CURB HEIGHT. SEE INSET A ON SHEET 3 OF 6.
- ② FULL CURB HEIGHT.
- ③ SIDE TREATMENTS ARE APPLICABLE TO ALL RAMP TYPES AND SHOULD BE IMPLEMENTED AS NEEDED AS FIELD CONDITIONS DICTATE. THE ENGINEER SHALL DETERMINE THE RAMP SIDE TREATMENTS BASED ON MAINTENANCE OF BOTH ROADWAY AND SIDEWALK, ADJACENT PROPERTY CONSIDERATIONS, AND MITIGATING CONSTRUCTION IMPACTS.
- ④ TYPICALLY USED FOR MEDIANS AND ISLANDS.
- ⑤ WHEN NO CONCRETE FLARES ARE PROPOSED, THE CONCRETE WALK SHALL BE FORMED AND CONSTRUCTED PERPENDICULAR TO THE EDGE OF ROADWAY. MAINTAIN 3" MAX. BETWEEN EDGE OF DOMES AND EDGE OF CONCRETE.
- ⑥ IF NO CURB AND GUTTER IS PLACED IN RURAL SECTIONS, DETECTABLE WARNINGS SHALL BE PLACED 1' FROM THE EDGE OF BITUMINOUS ROADWAY AND/OR BITUMINOUS SHARED-USE PATH TO PROVIDE VISUAL CONTRAST.
- ⑦ ALL CONSTRUCTED CURBS MUST HAVE A CONTINUOUS DETECTABLE EDGE FOR THE VISUALLY IMPAIRED. THIS DETECTABLE EDGE REQUIRES DETECTABLE WARNINGS WHEREVER THERE IS ZERO-INCH HIGH CURB. CURB TAPERS ARE CONSIDERED A DETECTABLE EDGE WHEN THE TAPER STARTS WITHIN 3" OF THE EDGE OF THE DETECTABLE WARNINGS. AND UNIFORMLY RISES TO A 3-INCH MINIMUM CURB HEIGHT. ANY CURB NOT PART OF A CURB TAPER AND LESS THAN 3 INCHES IN HEIGHT IS NOT CONSIDERED A DETECTABLE EDGE AND THEREFORE IS NOT COMPLIANT WITH ACCESSIBILITY STANDARDS.
- ⑧ DRILL AND GROUT 1 - NO. 4 12" LONG REINFORCEMENT BAR (EPOXY COATED) WITH 3" MIN. COVER. REINFORCEMENT BARS ARE NOT NEEDED IF THE APPROACH NOSE IS POURED INTEGRAL WITH THE V CURB.
- ⑨ DRILL AND GROUT 2 - NO. 4 12" LONG REINFORCEMENT BARS (EPOXY COATED) WITH 3" MIN. COVER. REINFORCEMENT BARS ARE NOT NEEDED IF THE APPROACH NOSE IS POURED INTEGRAL WITH THE CURB AND GUTTER.
- ⑩ SIDE TREATMENT EXAMPLES SHOWN ARE WHEN THE INITIAL LANDING IS APPROXIMATELY LEVEL WITH THE FULL HEIGHT CURB (I.E. 6' LONG RAMP FOR 6" HIGH CURB). WHEN THE INITIAL LANDING IS MORE THAN 1" BELOW FULL HEIGHT CURB REFER TO SHEETS 1 & 2 TO MODIFY THE CURB HEIGHT TAPERS AND MAINTAIN POSITIVE BOULEVARD DRAINAGE. CONSTRUCT THESE TAPERS AT 0"-3" AT 8-10%, THEN LESS THAN 5% FROM 3" CURB TO FULL CURB HEIGHT.
- ⑪ NEAREST EDGE OF DETECTABLE WARNING SURFACES SHALL BE PLACED 12' MINIMUM TO 15' MAXIMUM FROM THE NEAREST RAIL. FOR SKEWED RAILWAYS IN NO INSTANCE SHALL THE DETECTABLE WARNING BE CLOSER THAN 12' MEASURED PERPENDICULAR TO THE NEAREST RAIL.
- ⑫ WHEN PEDESTRIAN GATES ARE PROVIDED, DETECTABLE WARNING SURFACES SHALL BE PLACED ON THE SIDE OF THE GATES OPPOSITE THE RAIL, 2' FROM THE APPROACHING SIDE OF THE GATE ARM. THIS CRITERIA GOVERNS OVER NOTE ⑪.
- ⑬ CROSSING SURFACE SHALL EXTEND 2' MINIMUM PAST THE OUTSIDE EDGE OF WALK OR SHARED-USE PATH.
- ⑭ 3' FOR MEDIANS AND SPLITTER ISLANDS. NOSE CAN BE REDUCED TO 2' ON FREE RIGHT ISLANDS.
- ⑮ SIDEWALK TO BE PLACED 8.75' MIN. FROM THE FACE OF CURB/PROJECTED FACE OF CURB. THIS ENSURES MIN. CLEARANCE BETWEEN THE SIDEWALK AND GATE ARM COUNTERWEIGHT SUPPORTS.
- ⑯ CONSTRUCT WITH EXPANSION MATERIAL PER MNDOT SPECIFICATION 3702 TYPES A-E. EXPANSION MATERIAL SHALL MATCH FULL HEIGHT OF ADJACENT CONCRETE.

REVISION:
APPROVED: 11-04-2021
<i>Jeff J. Perkins</i> JEFFREY PERKINS OPERATIONS DIVISION

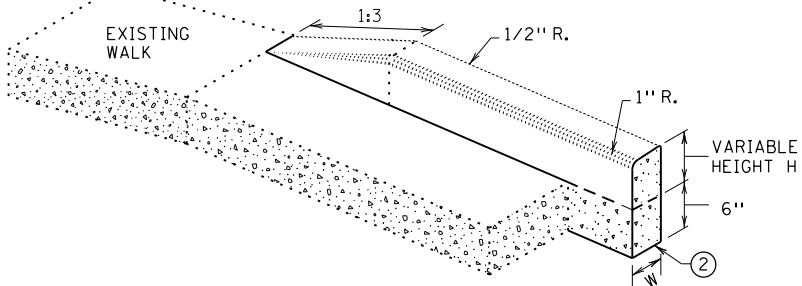


STANDARD PLAN 5-297.250	4 OF 6
<i>Tom Styrbicki</i> THOMAS STYRBICKI STATE DESIGN ENGINEER	APPROVED: 11-04-2021 REVISED:

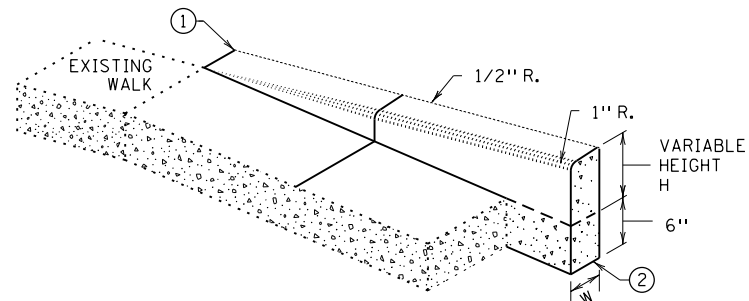
PEDESTRIAN CURB RAMP DETAILS

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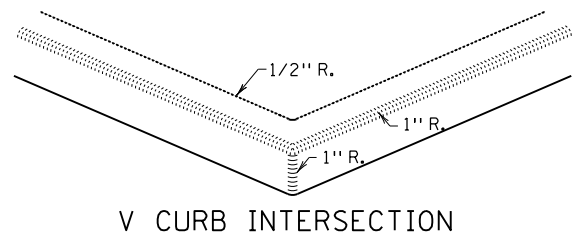
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V CURB ADJACENT TO LANDSCAPE
CURB WITHIN SIDEWALK LIMITS

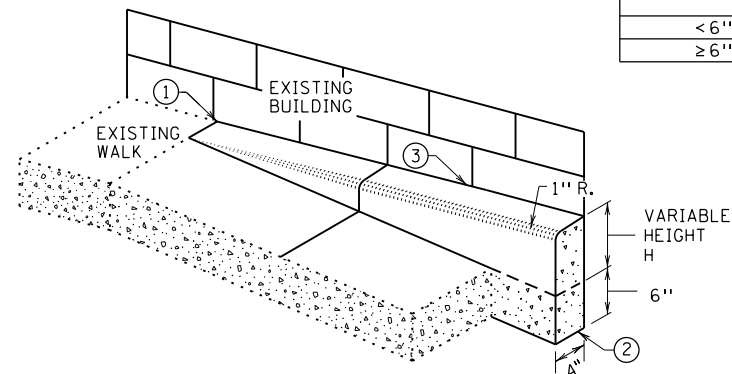


V CURB ADJACENT TO LANDSCAPE
CURB OUTSIDE SIDEWALK LIMITS

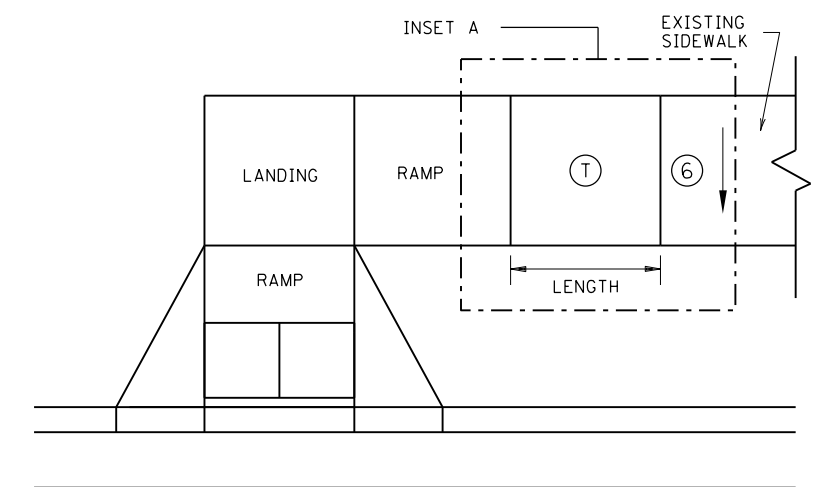


V CURB INTERSECTION

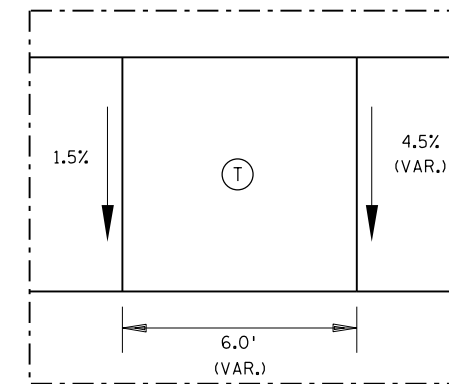
CONCRETE CURB DESIGN V	
CURB HEIGHT H	CURB WIDTH W
< 6"	4"
≥ 6"	6"



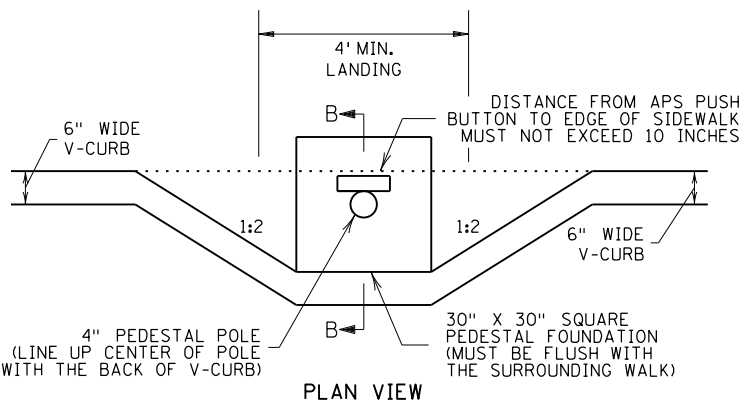
V CURB ADJACENT TO BUILDING
OR BARRIER



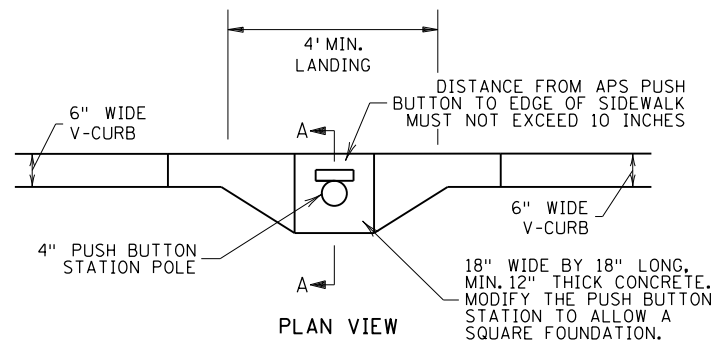
TRANSITION PANEL ④ ⑤



INSET A

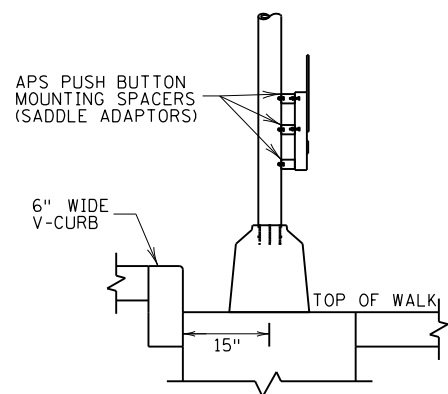


PLAN VIEW



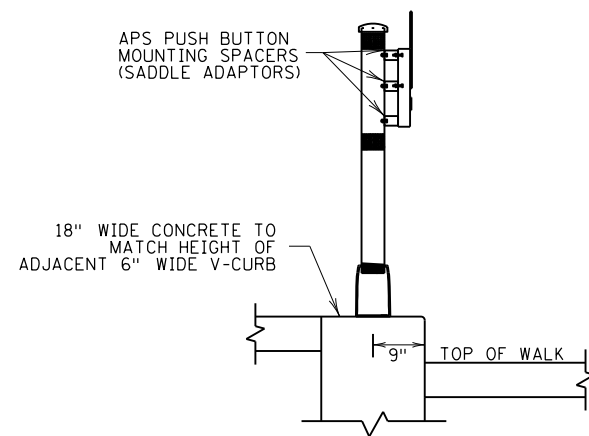
PLAN VIEW

18" WIDE BY 18" LONG, MIN. 12" THICK CONCRETE. MODIFY THE PUSH BUTTON STATION TO ALLOW A SQUARE FOUNDATION.



SECTION B-B

SIGNAL PEDESTAL & PUSH BUTTON (V-CURB)



SECTION A-A

PUSH BUTTON STATION (V-CURB)

NOTES:

A WALKABLE FLARE IS AN 8-10% CONCRETE FLARE THAT IS REQUIRED WHEN THE FLARE IS ADJACENT TO A WALKABLE SURFACE, OR WHEN THE PEDESTRIAN PATH OF TRAVEL OF A PUSH BUTTON TRAVERSES THE FLARE.

ALL V CURB CONTRACTION JOINTS SHALL MATCH CONCRETE WALK JOINTS.

WHERE RIGHT-OF-WAY ALLOWS, USE OF V CURB SHOULD BE MINIMIZED. GRADING ADJACENT TURF OR SLOPING ADJACENT PAVEMENT IS PREFERRED.

V CURB SHALL BE PLACED OUTSIDE THE SIDEWALK LIMITS WHEN RIGHT OF WAY ALLOWS.

V CURB NEXT TO BUILDING SHALL BE A 4" WIDTH AND SHALL MATCH PREVIOUS TOP OF SIDEWALK ELEVATIONS.

- ① END TAPERS AT TRANSITION SECTION SHALL MATCH INPLACE SIDEWALK GRADES.
- ② ALL V CURB SHALL MATCH BOTTOM OF ADJACENT WALK.
- ③ CONSTRUCT USING APPROVED EXPANSION MATERIAL PER MNDOT TYPE A-E EXPANSION. LEAVE A MINIMUM 1/2" TOP GAP AND SEAL WITH MNDOT APPROVED SILICONE PER MNDOT SPEC 3722.
- ④ THE MAX. RATE OF CROSS SLOPE TRANSITIONING IS 1' LINEAR FOOT OF SIDEWALK PER HALF PERCENT CROSS SLOPE. WHEN PAR WIDTH IS GREATER THAN 6' OR THE RUNNING SLOPE IS GREATER THAN 5%, DOUBLE THE CALCULATED TRANSITION LENGTH.
- ⑤ TRANSITION PANELS ARE TO ONLY BE USED AFTER THE RAMP, OR IF NEEDED, LANDING ARE AT THE FULL CURB HEIGHT (TYPICAL SECTION).
- ⑥ EXISTING CROSS SLOPE GREATER THAN 2.0%.

LEGEND

THESE LONGITUDINAL SLOPE RANGES SHALL BE THE STARTING POINT. IF SITE CONDITIONS WARRANT, LONGITUDINAL SLOPES UP TO 8.3% OR FLATTER ARE ALLOWED.

Ⓢ INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND THE CROSS SLOPE SHALL NOT EXCEED 2.0%.

▨ LANDING AREA - 4' X 4' MIN. (5' X 5' MIN. PREFERRED) DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS. LANDING SHALL BE FULL WIDTH OF INCOMING PARS.

Ⓣ TRANSITION PANEL(S) - TO BE USED FOR TRANSITIONING THE CROSS-SLOPE OF A RAMP TO THE EXISTING WALK CROSS-SLOPE. RATE OF TRANSITION SHOULD BE 0.5% PER 1 LINEAR FOOT OF WALK. SEE THIS SHEET FOR ADDITIONAL INFORMATION.

REVISION:
APPROVED: 11-04-2021
<i>Jeff J. Perkins</i> JEFFREY PERKINS OPERATIONS DIVISION

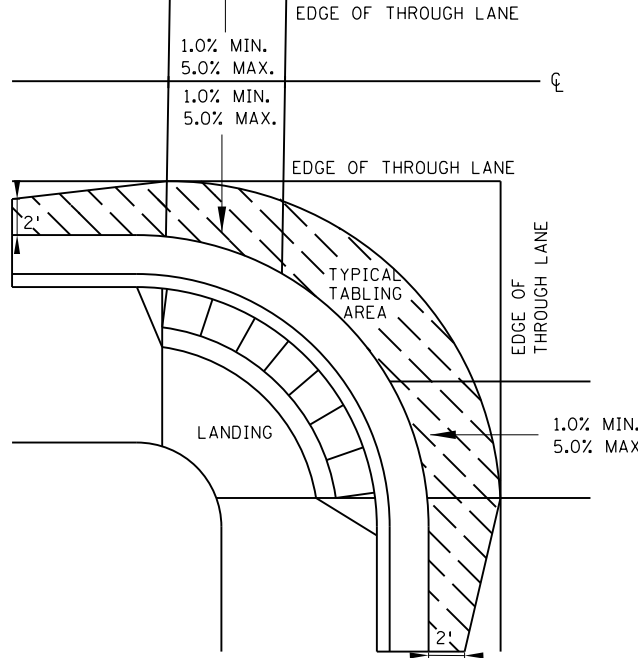
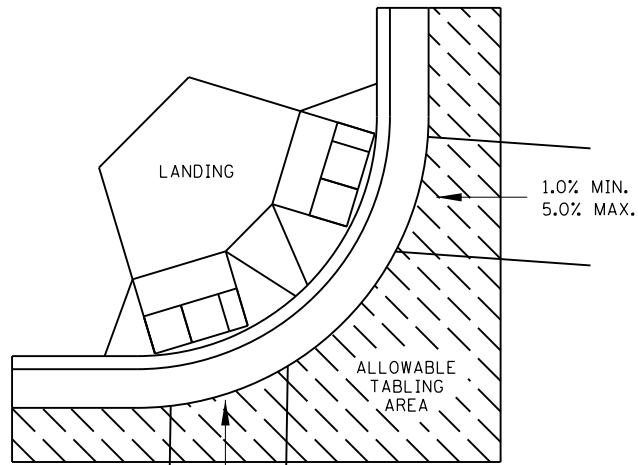


STANDARD PLAN 5-297.250	5 OF 6
<i>Tom Styrbicki</i> THOMAS STYRBICKI STATE DESIGN ENGINEER	APPROVED: 11-04-2021 REVISED:

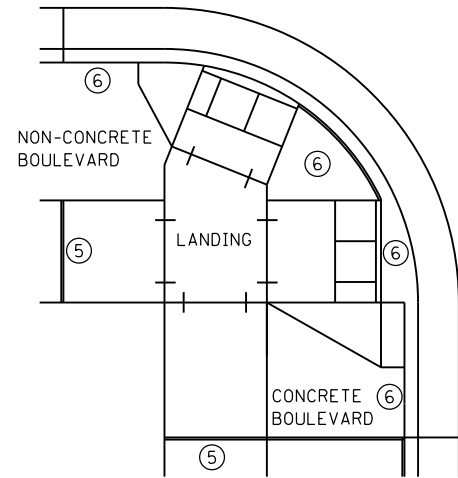
PEDESTRIAN CURB RAMP DETAILS

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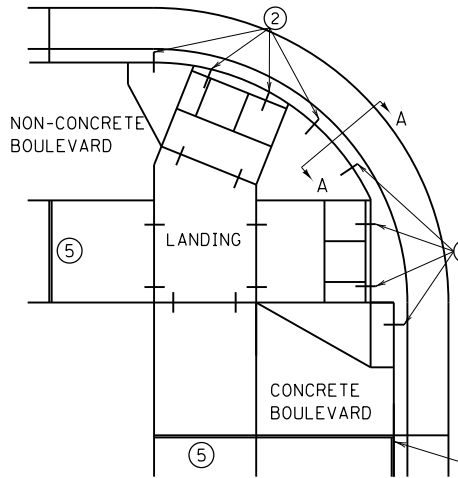
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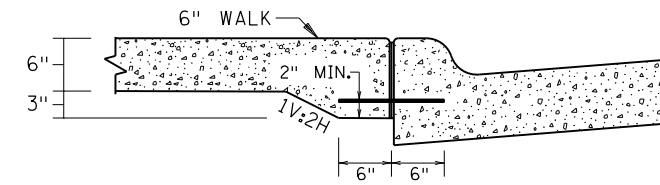
CURB LINE AND ROAD CROSSING ADJUSTMENTS



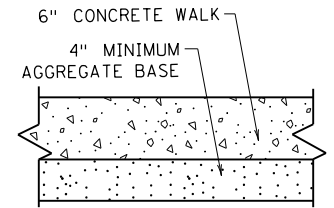
EXPANSION MATERIAL PLACEMENT FOR CONCRETE ROADWAYS



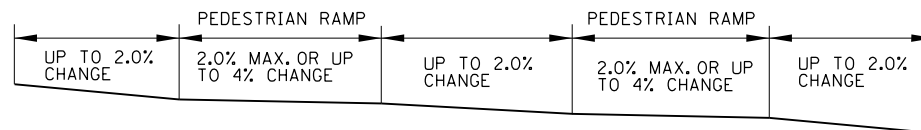
CURB LINE REINFORCEMENT PLACEMENT ON BITUMINOUS ROADWAYS



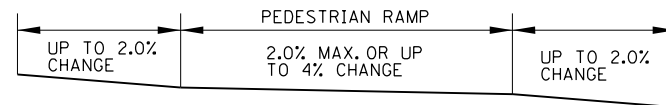
SECTION VIEW A-A THICKENED SECTION THROUGH CURB RAMP FLARES



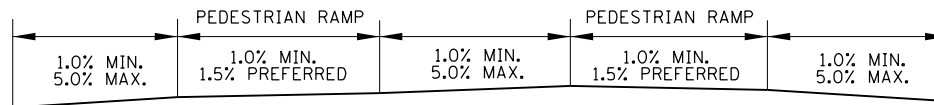
TYPICAL SIDEWALK SECTION WITHIN INTERSECTION CORNER



FLOW LINE PROFILE "TABLE" - TWIN PERPENDICULARS



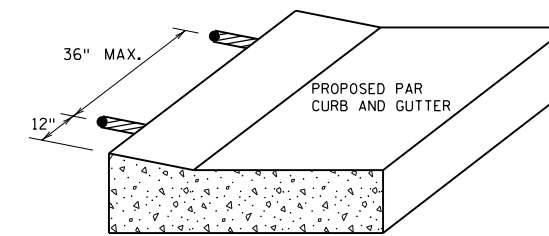
FLOW LINE PROFILE "TABLE" - FAN



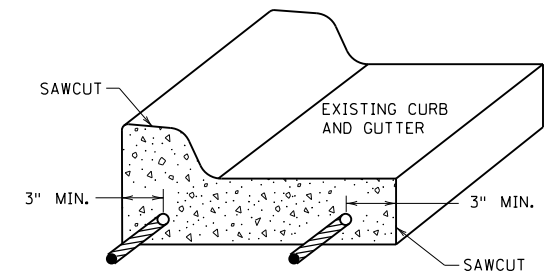
FLOW LINE PROFILE RAISE - TWIN PERPENDICULARS



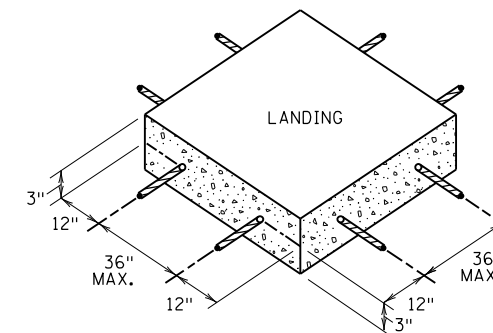
FLOW LINE PROFILE RAISE - FAN



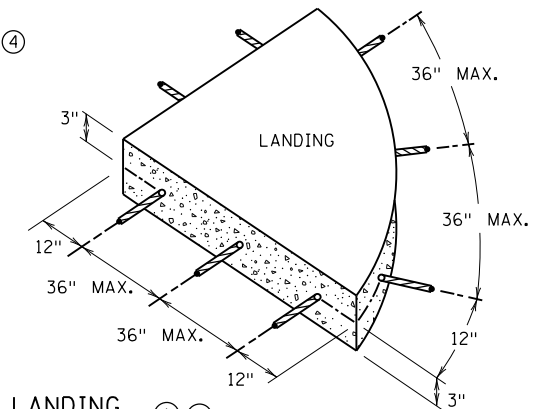
CURB RAMP REINFORCEMENT DETAILS



CURB AND GUTTER REINFORCEMENT



SEPARATE LANDING POUR REINFORCEMENT



GENERAL NOTES:

"TABLING" OF CROSSWALKS MEANS MAINTAINING LESS THAN 2% CROSS SLOPE WITHIN A CROSSWALK, IS REQUIRED WHEN A ROADWAY IS IN A STOP OR YIELD CONDITION AND THE PROJECT SCOPE ALLOWS.

RECONSTRUCTION PROJECTS: ON FULL PAVEMENT REPLACEMENT PROJECTS "TABLING" OF ENTIRE CROSSWALK SHALL OCCUR WHEN FEASIBLE.

MILL & OVERLAY PROJECTS: "TABLING" OF FLOW LINES, IN FRONT OF THE PEDESTRIAN RAMP, IS REQUIRED WHEN THE EXISTING FLOW LINE IS GREATER THAN 2%. WARPING OF THE BITUMINOUS PAVEMENT CAN NOT EXTEND INTO THE THROUGH LANE. TABLE THE FLOW LINE TO 2% OR AS MUCH AS POSSIBLE WHILE ADHERING TO THE FOLLOWING CRITERIA:

- 1) 1.0% MIN. CROSS-SLOPE OF THE ROAD
- 2) 5.0% MAX. CROSS-SLOPE OF THE ROAD
- 3) "TABLE" FLOW LINE UP TO 4% CHANGE FROM EXISTING SLOPE IN FRONT OF PEDESTRIAN RAMP
- 4) UP TO 2% CHANGE IN FLOW LINE FROM EXISTING SLOPE BEYOND THE PEDESTRIAN CURB RAMP

STAND-ALONE ADA RETROFITS: FOLLOW MILL & OVERLAY CRITERIA ABOVE HOWEVER ALL PAVEMENT WARPING IS DONE WITH BITUMINOUS PATCHING ON BITUMINOUS ROADWAYS AND FULL-DEPTH APRON REPLACEMENT ON CONCRETE ROADWAYS.

RAISING OF CURB LINES SHOULD OCCUR IN VERTICALLY CONSTRAINED AREAS. RAISE THE CURB LINES ENOUGH TO ALLOW COMPLIANT RAMPS OR AS MUCH AS POSSIBLE WHILE ADHERING TO THE FOLLOWING CRITERIA:

- 1) 1.0% MIN. AND 5.0% MAXIMUM CROSS-SLOPE OF THE ROAD
- 2) 1.0% MIN. FLOW LINE (ON EITHER SIDE OF PEDESTRIAN RAMP) TO MAINTAIN POSITIVE DRAINAGE
- 3) 5.0% RECOMMENDED MAX. FLOW LINE
- 4) LONGITUDINAL THROUGH LANE ROADWAY TAPERS SHOULD BE 1" VERTICAL PER 15' HORIZONTAL

NOTES:

- ① TO ENSURE RAMPS AND LANDINGS ARE PROPERLY CONSTRUCTED, ALL INITIAL LANDINGS AT A TOP OF A RAMPED SURFACE (RUNNING SLOPE GREATER THAN 2%) SHALL BE FORMED AND PLACED SEPARATELY IN AN INDEPENDENT CONCRETE POUR. FOLLOW SIDEWALK REINFORCEMENT DETAILS ON THIS SHEET FOR ALL SEPARATELY POURED INITIAL LANDINGS.
- ② DRILL AND GROUT NO. 4 12" LONG REINFORCEMENT BARS (EPOXY COATED) AT 36" MAXIMUM CENTER TO CENTER MINIMUM 12" SPACING FROM CONSTRUCTION JOINTS. BARS TO BE ADJUSTED TO MATCH RAMP GRADE. BARS TO BE PAID BY EACH.
- ③ DRILL AND GROUT 2 - NO. 4 X 12" LONG (6" EMBEDDED) REINFORCEMENT BARS (EPOXY COATED). REINFORCEMENT REQUIRED FOR ALL CONSTRUCTION JOINTS. BARS TO BE PAID BY EACH.
- ④ THIS CURB LINE REINFORCEMENT DETAIL SHALL BE USED ON BITUMINOUS ROADWAYS. FOR CONCRETE ROADWAYS, SEE NOTE 6.
- ⑤ CONSTRUCT WITH EXPANSION MATERIAL PER MNDOT SPECIFICATION 3702 TYPES A-E. EXPANSION MATERIAL SHALL MATCH FULL HEIGHT OF ADJACENT CONCRETE.
- ⑥ USE AN APPROVED TYPE F (1/4 INCH THICK) SEPARATION MATERIAL. SEPARATION MATERIAL SHALL MATCH FULL HEIGHT DIMENSION OF ADJACENT CONCRETE.

REVISION:
APPROVED: 11-04-2021
<i>Jeff J. Perkins</i> JEFFREY PERKINS OPERATIONS DIVISION

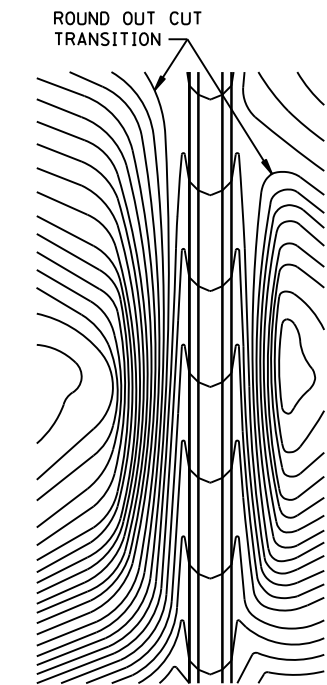


STANDARD PLAN 5-297.250	6 OF 6
<i>Tom Styrbicki</i> THOMAS STYRBICKI STATE DESIGN ENGINEER	APPROVED: 11-04-2021 REVISED:

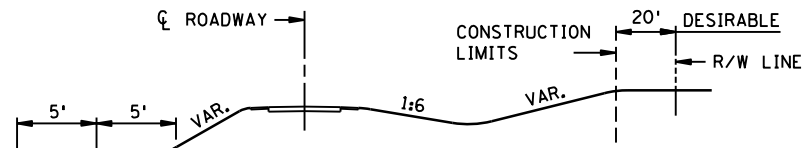
PEDESTRIAN CURB RAMP DETAILS

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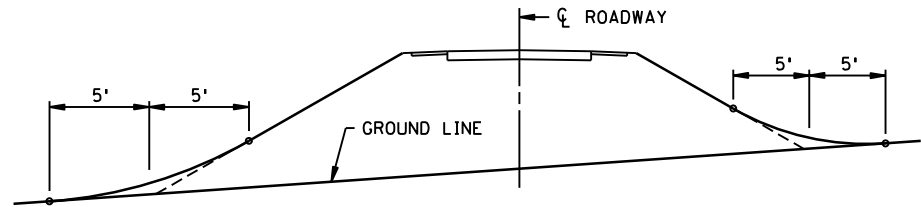
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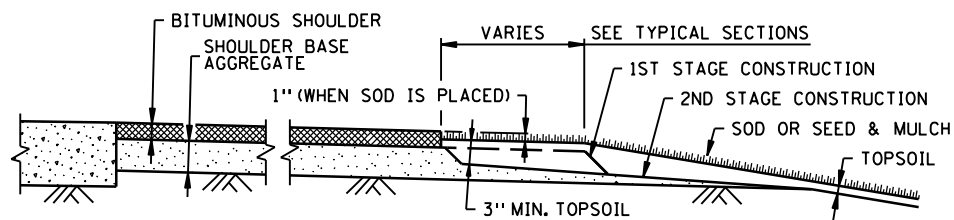
CONTOURING ROAD CUTS



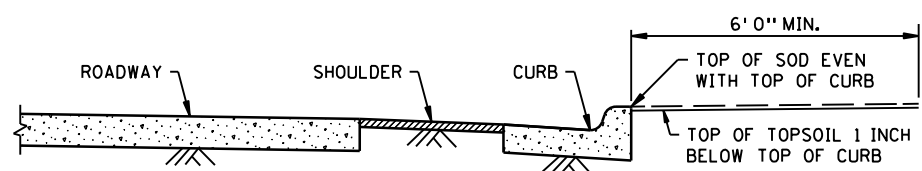
ROUNDING SHOULDERS AND BACKSLOPES



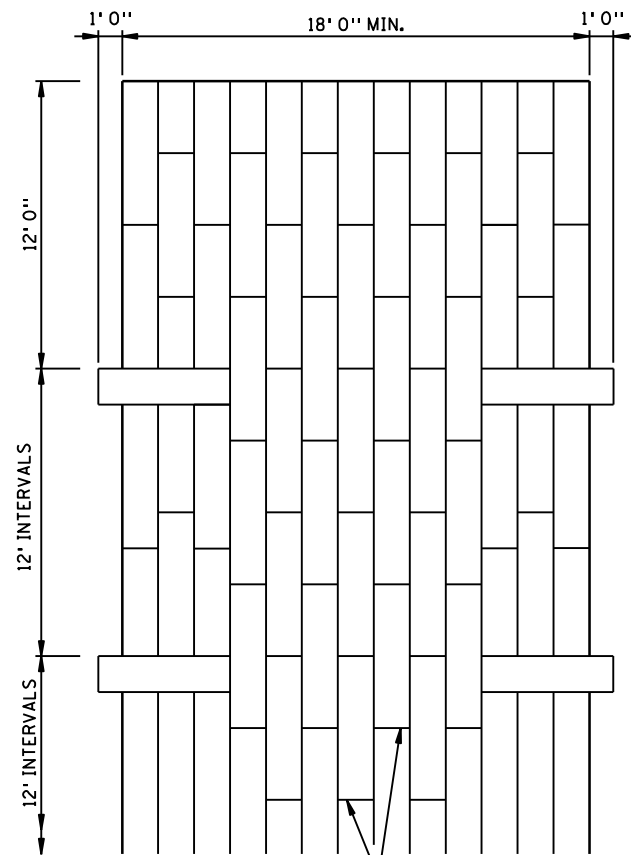
SHAPING FOR DRAINAGE ALONG THE TOE OF FILL SLOPES



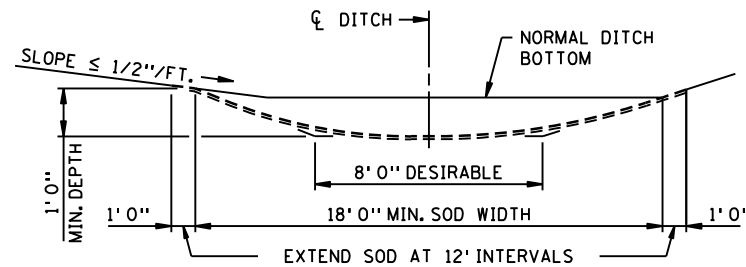
SHAPING AND TOPSOILING INSLOPES



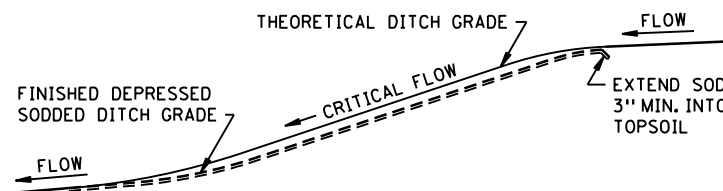
SHAPING ADJACENT TO CURBS WHEN SOD IS PLACED



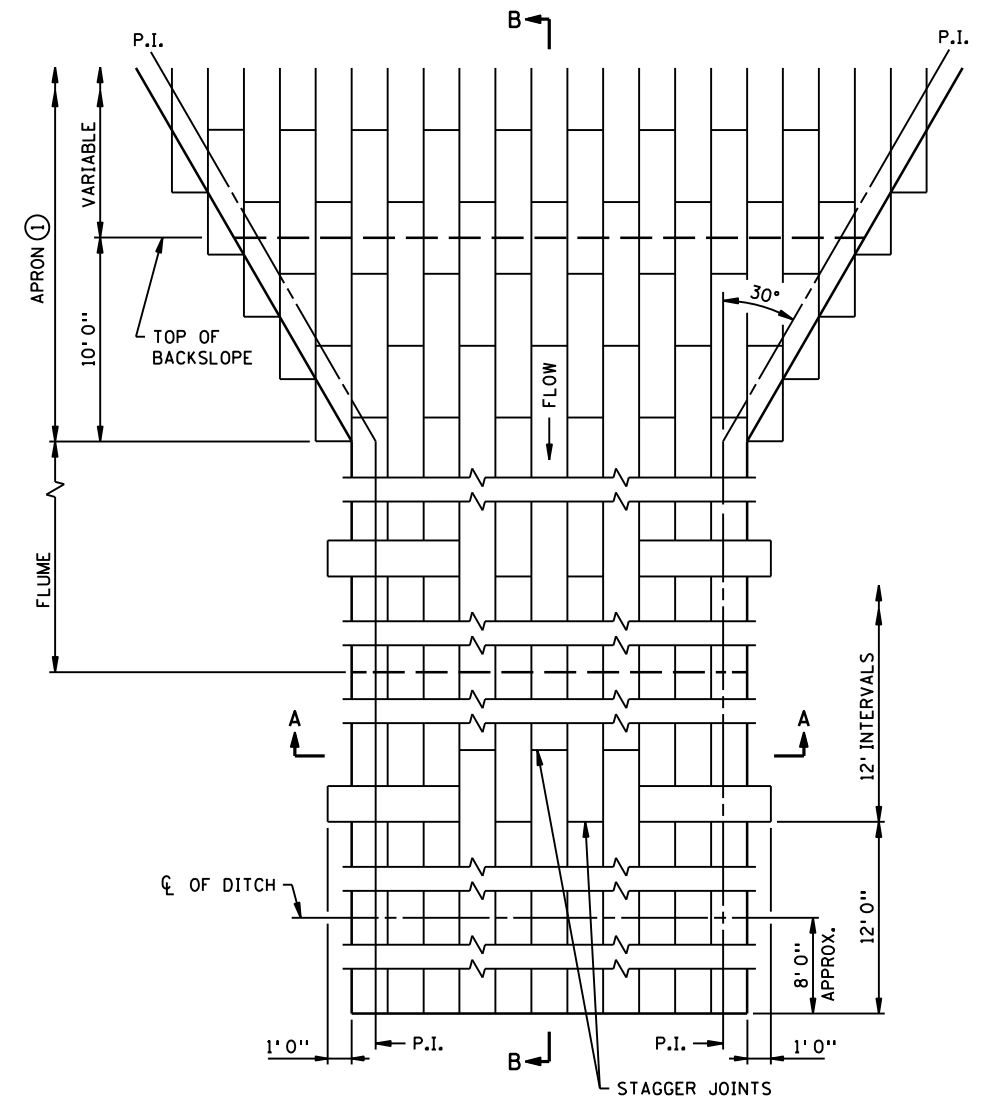
PLAN VIEW



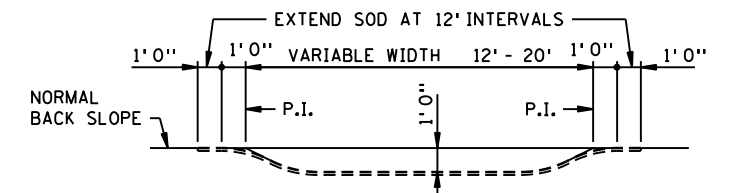
SODDED DITCH CROSS SECTION
WHERE FRONT OR BACK SLOPE IS FLAT (LESS THAN 1/2"/FT.), FIRST NOTCH DITCH AND THEN PROVIDE ROUNDING.



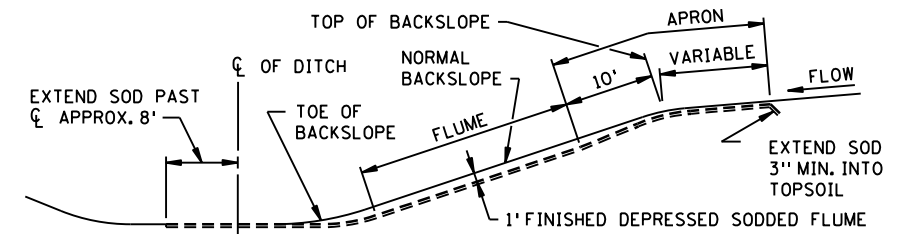
DITCH PROFILE
SODDED DITCH DETAILS



PLAN VIEW



SECTION A-A



SECTION B-B
SODDED FLUME DETAILS

NOTES:
SEE SPEC. 2575.3 FOR ADDITIONAL INFORMATION.
① CONSTRUCT TAPER AS DIRECTED BY THE ENGINEER.

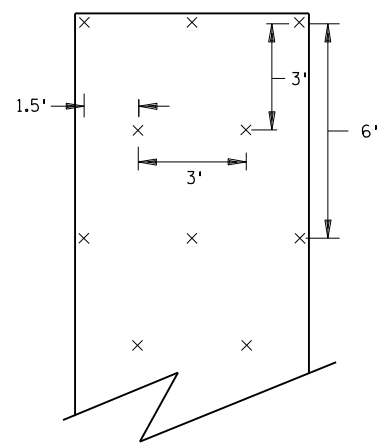
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CHIEF ENVIRONMENTAL OFFICER

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MINNESOTA
DEPARTMENT
OF
TRANSPORTATION

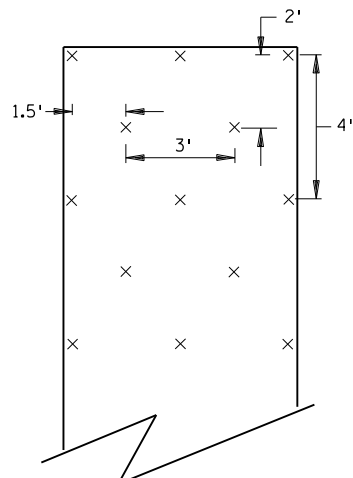
STANDARD PLAN 5-297.404 1 OF 3
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STATE DESIGN ENGINEER
APPROVED: 2-28-2017
REVISED:

**PERMANENT EROSION CONTROL
ALONG ROADWAYS, DITCHES AND FLUMES**

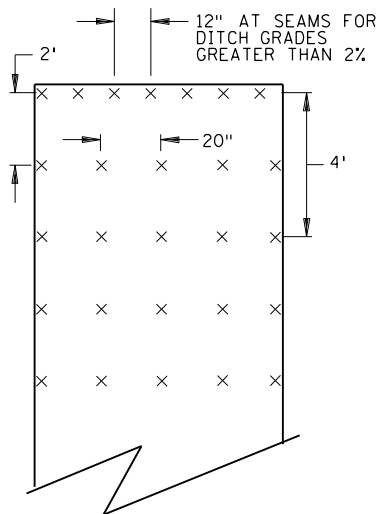
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SLOPES FLATTER THAN 1:2
120 STAPLES PER 100 SQ YD

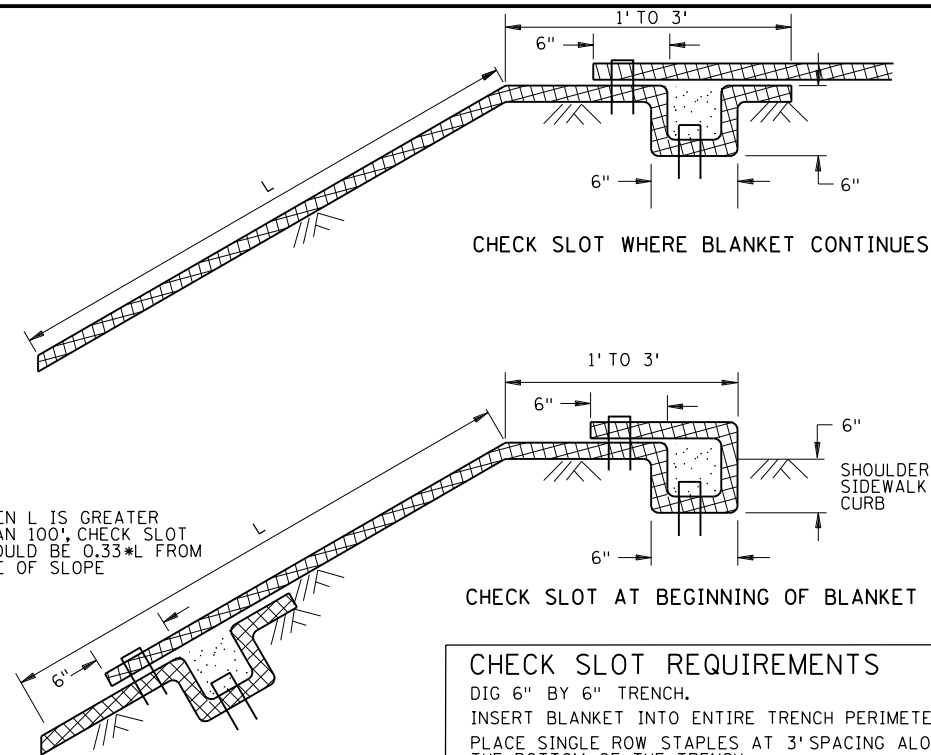


SLOPES 1:2 TO 1:1
170 STAPLES PER 100 SQ YD

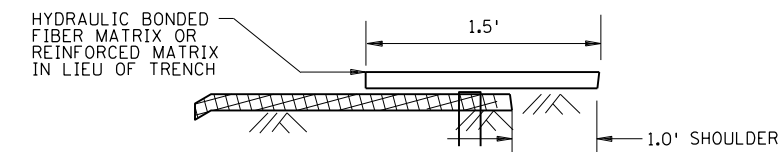


CHANNEL AND DITCH APPLICATIONS
350 STAPLES PER 100 SQ YD

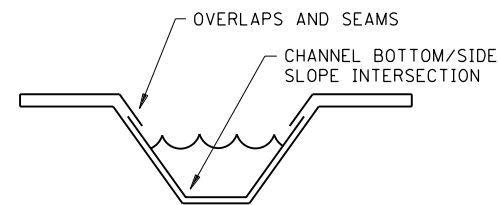
BLANKET STAPLE PATTERN



CHECK SLOT REQUIREMENTS
DIG 6" BY 6" TRENCH.
INSERT BLANKET INTO ENTIRE TRENCH PERIMETER.
PLACE SINGLE ROW STAPLES AT 3' SPACING ALONG THE BOTTOM OF THE TRENCH.
BACKFILL TRENCH WITH SOIL AND TAMP.
PLACE SINGLE ROW STAPLES AT 3' SPACING ON OVERLAP.



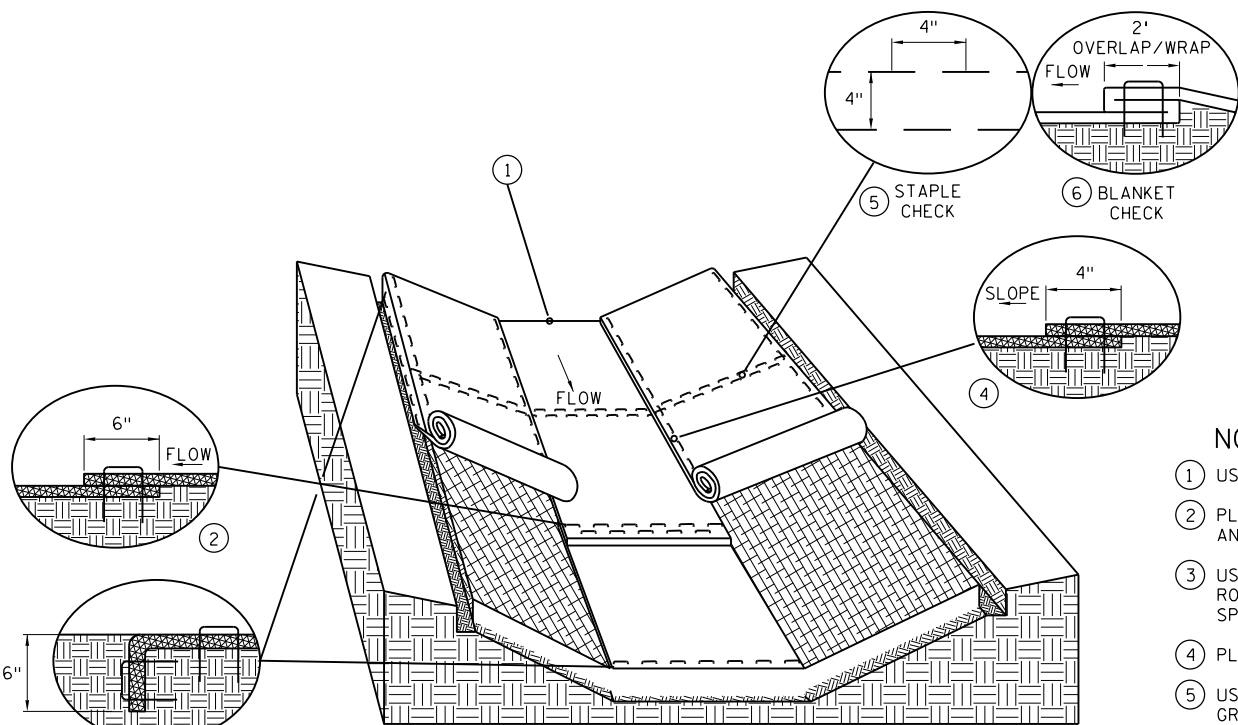
CHECK SLOT ALTERNATIVE
PLACE SINGLE ROW STAPLES AT 12" SPACING
CHECK SLOT DETAILS



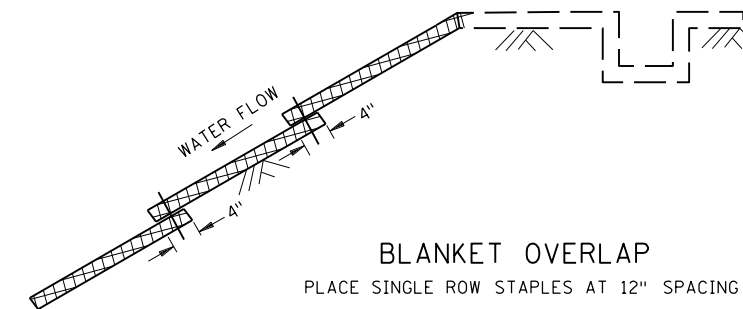
DITCH BLANKET CRITICAL POINTS ⑦

NOTES:

- ① USE CHECK SLOT DETAIL (NO ALTERNATES).
- ② PLACE DOUBLE ROW OF STAPLES STAGGERED 4" APART AND 4" ON CENTER.
- ③ USE 6" X 6" TRENCH TO PLACE BLANKET. PLACE SINGLE ROW OF STAPLES ON TOP AND TRENCH SIDES AT 12" SPACING. BACKFILL TRENCH WITH SOIL AND TAMP.
- ④ PLACE SINGLE ROW OF STAPLES AT 12" SPACING.
- ⑤ USE STAPLE CHECK FOR CHANNEL SLOPES LESS THAN 2.5%. GRADE AT 100' INTERVALS. PLACE DOUBLE ROW OF STAPLES STAGGERED 4" APART AND AT 4" SPACING.
- ⑥ USE BLANKET CHECKS FOR THE FOLLOWING SLOPES:
2.5%-3% 100' INTERVALS
3%-5% 50' INTERVALS
5%-7% 25' INTERVALS
- ⑦ CRITICAL POINTS SHALL BE SECURED WITH PROPER STAPLE PATTERNS.



DITCH BLANKET STAPLE DETAIL



BLANKET OVERLAP
PLACE SINGLE ROW STAPLES AT 12" SPACING

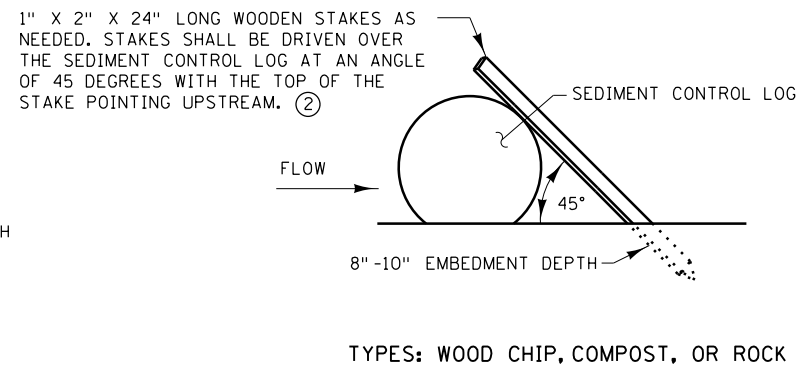
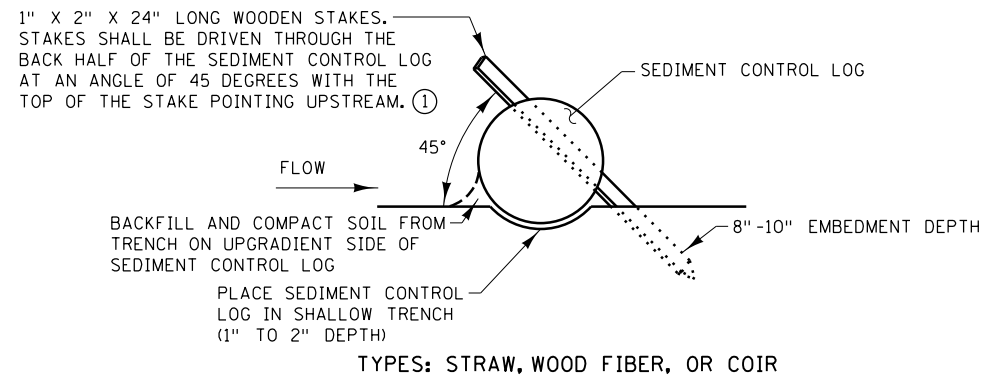
GENERAL BLANKET INSTALLATION REQUIREMENTS
REPP = ROLLED EROSION PREVENTION PRODUCT.
PREPARE SOIL AS PER SPECIFICATION 2574.
LAY PARALLEL OR PERPENDICULAR TO THE DIRECTION OF WATER FLOW.
OVERLAP ADJACENT STRIP EDGES A MINIMUM OF 4".
OVERLAP BLANKET 6" (MINIMUM) AT EACH END. OVERLAP BOTTOM END OF UPPER BLANKET OVER TOP END OF LOWER BLANKET. STAPLE ALONG OVERLAP EVERY 1.5'.
THE UPPERMOST BLANKET OF ALL SLOPE APPLICATIONS MUST START IN A CHECK SLOT. IF SLOPE LENGTH (L) IS 100' OR GREATER, INSERT BLANKET INTO A CHECK SLOT 1/3 FROM THE BOTTOM OF THE SLOPE.

REVISION:
APPROVED: JANUARY 8, 2020 <i>Marni Karnowski</i> MARNI KARNOWSKI CHIEF ENVIRONMENTAL OFFICER

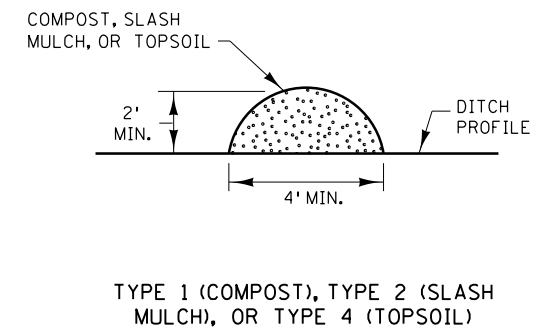
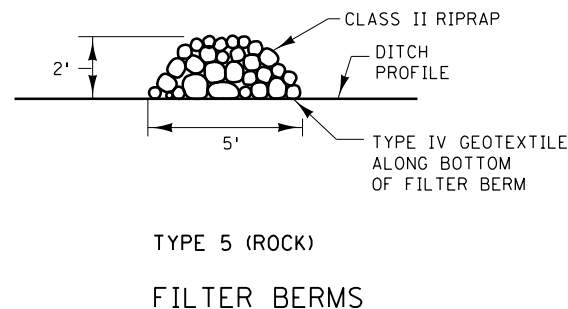
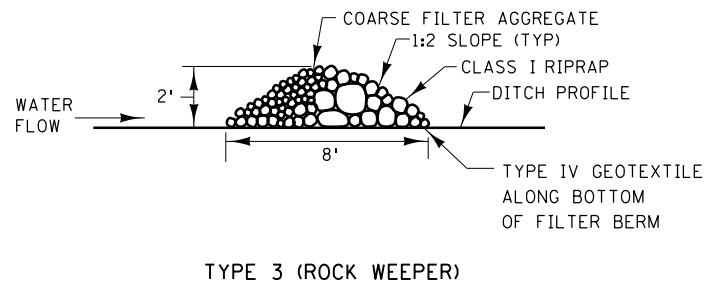
	STANDARD PLAN 5-297.404	3 OF 3
	 THOMAS STYRBICKI STATE DESIGN ENGINEER	APPROVED: 1-8-2020 REVISED:

PERMANENT EROSION CONTROL
REPP (BLANKET) STAPLE PATTERN FOR SLOPES

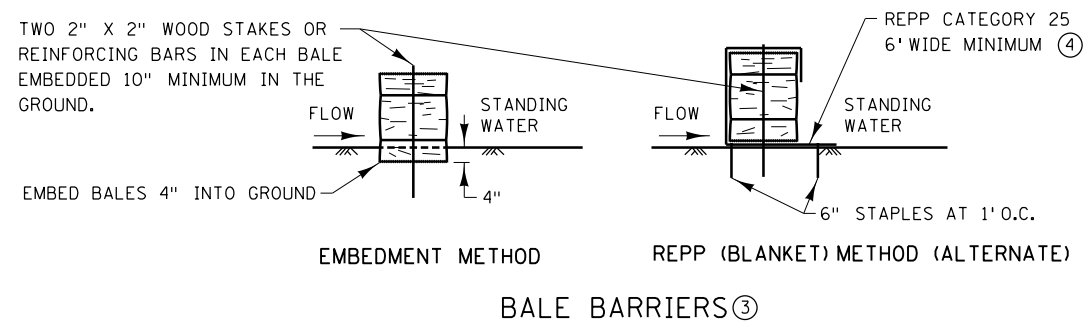
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SEDIMENT CONTROL LOGS



FILTER BERMS



NOTES:

- REPP = ROLLED EROSION PREVENTION PRODUCT.
- SEE SPECS. 2573, 3149, 3874, 3882, 3885, 3886, AND 3897.
- ① SPACE BETWEEN STAKES SHALL BE A MAXIMUM OF 1' FOR DITCH CHECKS OR 2' FOR OTHER APPLICATIONS.
- ② PLACE STAKES AS NEEDED TO PREVENT MOVEMENT OF SEDIMENT CONTROL LOGS PLACED ON SLOPES OR AS NEEDED DUE TO OTHER FACTORS. STAKES SHALL BE INCIDENTAL.
- ③ TO BE USED FOR CRITICAL PERIMETER CONTROL AREAS WHERE STANDING WATER OCCURS (6" MAXIMUM DEPTH). BALES SHALL CONSIST OF TYPE 1 MULCH OF APPROXIMATELY 14" X 18" X 36" LONG. BALES SHALL BE PLACED ON EDGE AND BUTTED TIGHT TO ADJACENT BALES.
- ④ INSTEAD OF TRENCHING, PLACE BALE ON THE REPP (BLANKET) AND WRAP BLANKET AROUND THE BALE. PLACE STAKE THROUGH BALE AND BLANKET.

REVISION:
APPROVED: JANUARY 8, 2020
<i>Marni Karnowski</i>
MARNI KARNOWSKI
CHIEF ENVIRONMENTAL OFFICER

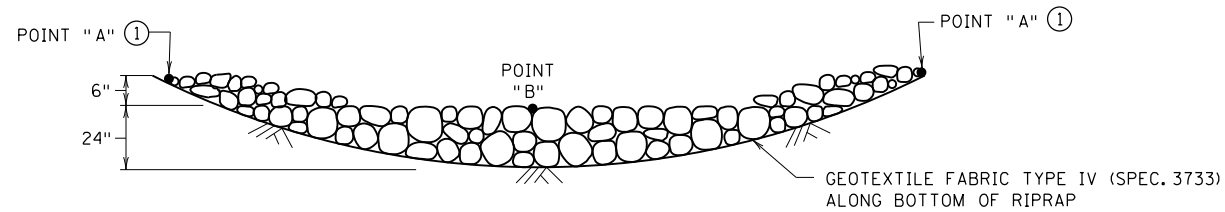


STANDARD PLAN 5-297.405	2 OF 8
<i>Tom Styrbicki</i>	APPROVED: 1-8-2020
THOMAS STYRBICKI	REVISOR:
STATE DESIGN ENGINEER	

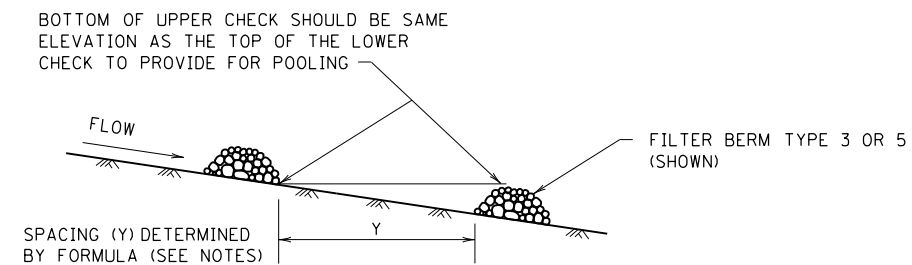
TEMPORARY SEDIMENT CONTROL
FILTER BERMS, SEDIMENT CONTROL LOGS, AND BALE BARRIERS

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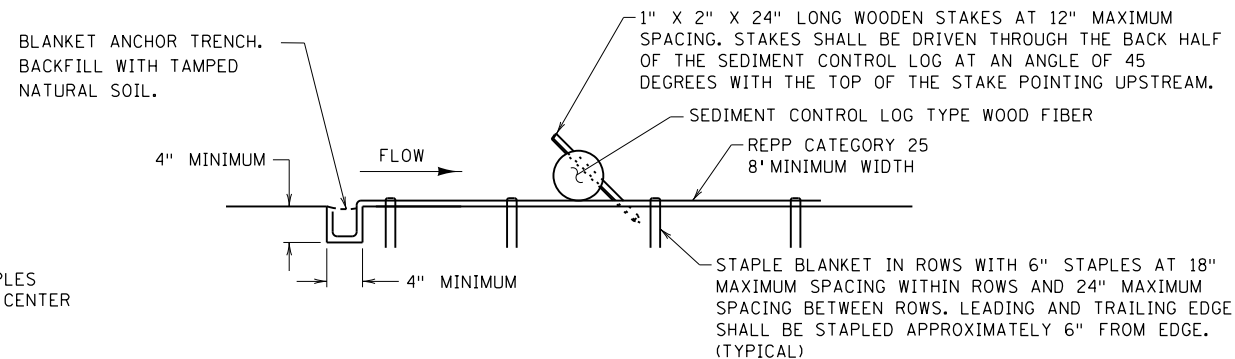
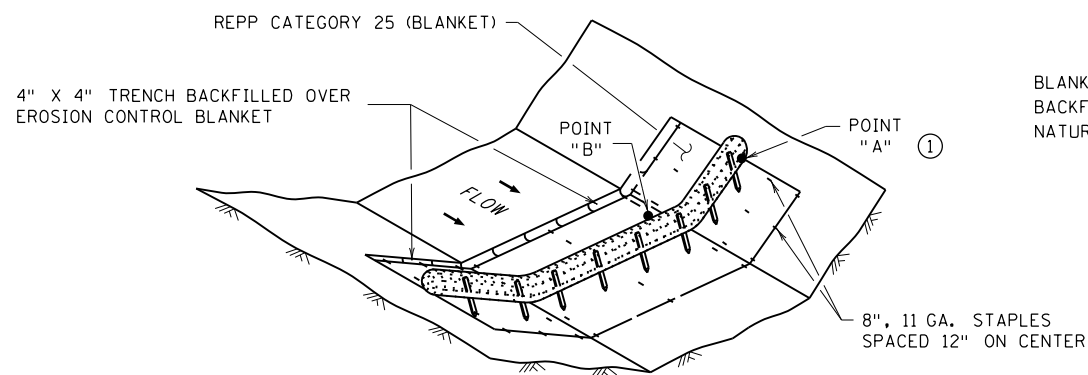
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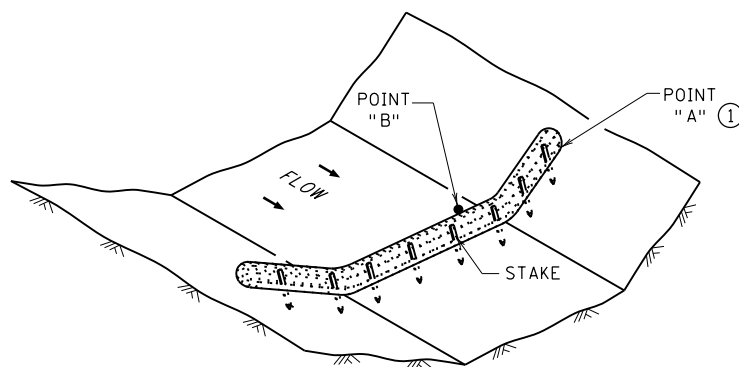
ROCK DITCH CHECKS
 FILTER BERMS TYPE 3 (ROCK WEEPER) OR FILTER TYPE 5 (ROCK) (3)
 FOR USE ON ROUGH-GRADED AREAS
 ONLY FOR USE OUTSIDE CLEAR ZONE (2)



DITCH CHECK SPACING
 FOR ALL FILTER BERM TYPES



SEDIMENT CONTROL LOG TYPE REPP (BLANKET) SYSTEM (4)



SEDIMENT CONTROL LOG TYPE WOOD FIBER, OR TYPE COMPOST (5)
 FOR USE ON ROUGH GRADED AREAS

NOTES:

- REPP = ROLLED EROSION PREVENTION PRODUCT.
- SEE SPECS. 2573, 3601, 3733, 3885, 3886 & 3889.
- FOR DITCH CHECKS, PLACE SEDIMENT CONTROL LOG PERPENDICULAR TO FLOW AND IN A CRESCENT SHAPE WITH THE ENDS FACING UPSTREAM.
- APPROXIMATE SPACING BETWEEN EACH DITCH CHECK SHOULD BE DETERMINED FROM THE FOLLOWING SPACING FORMULA:

$$\text{APPROXIMATE SPACING OF DITCH CHECKS (FT.)} = Y = \frac{\text{DITCH CHECK HEIGHT (FT.)}}{\% \text{ CHANNEL SLOPE}} \times 100$$
- (1) POINT "A" MUST BE A MINIMUM OF 6" HIGHER THAN POINT "B" TO ENSURE THAT WATER FLOWS OVER THE DIKE AND NOT AROUND THE ENDS.
- (2) ROCK DITCH CHECKS PLACED WITHIN THE CLEAR ZONE ARE TO BE 18" OR LESS IN HEIGHT. A 1:6 APPROACH AND DEPARTURE SLOPE SHALL BE PROVIDED.
- (3) DITCH GRADE 3% - 5%, MAX. FLOW VELOCITY 12 FT./SEC.
- (4) DITCH GRADE 1.5% - 3%, MAX. FLOW VELOCITY 4.5 FT./SEC.
- (5) DITCH GRADE 1.5% - 3%, MAX. FLOW VELOCITY 1.5 FT./SEC.

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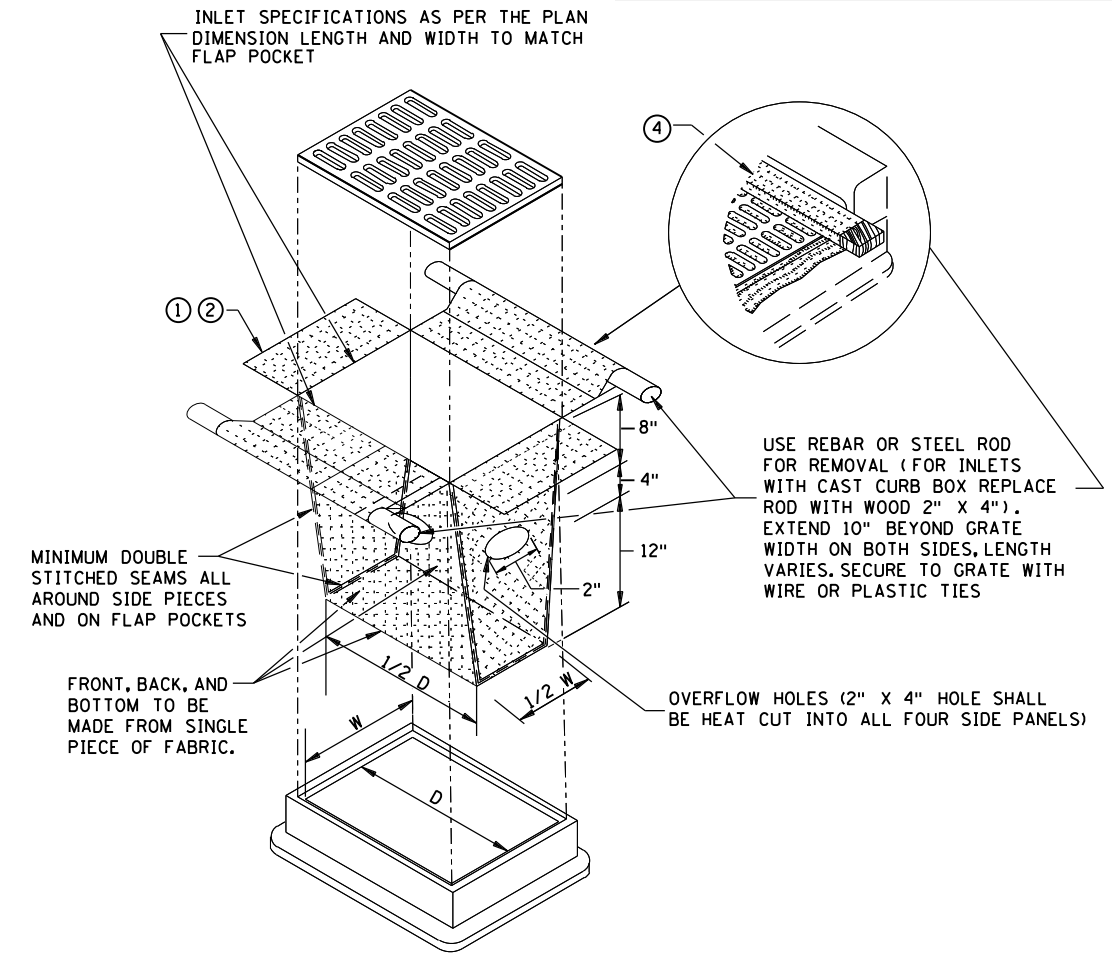
REVISION:
APPROVED: JANUARY 8, 2020 MARNI KARNOWSKI CHIEF ENVIRONMENTAL OFFICER

 DEPARTMENT OF TRANSPORTATION	STANDARD PLAN 5-297.405	3 OF 8
	 THOMAS STYRBICKI STATE DESIGN ENGINEER	APPROVED: 1-8-2020 REVISED:

TEMPORARY SEDIMENT CONTROL
DITCH CHECK

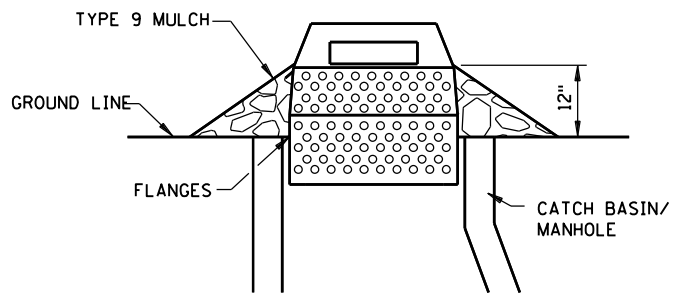
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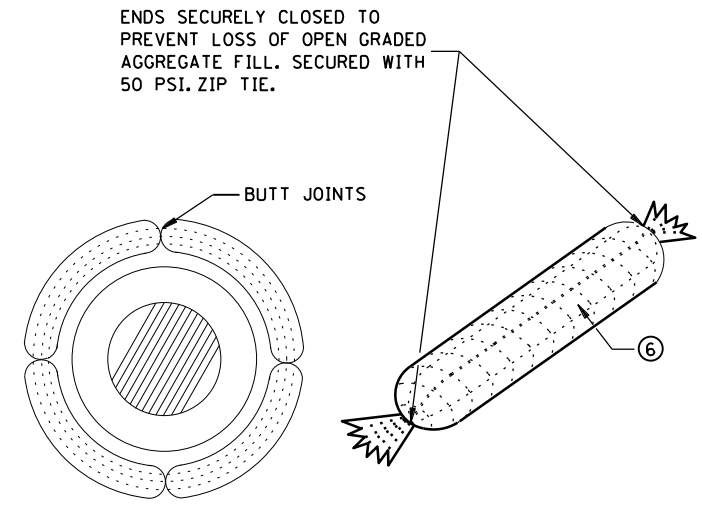
FILTER BAG INSERT ③

(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX)

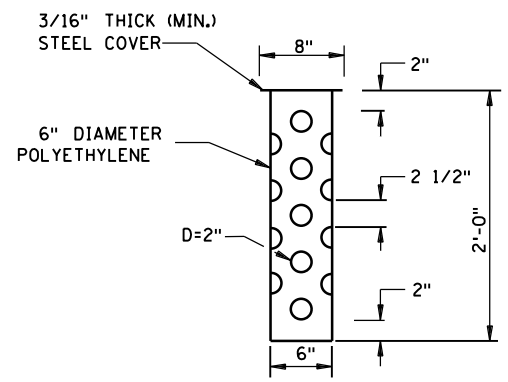


SEDIMENT CONTROL INLET HAT

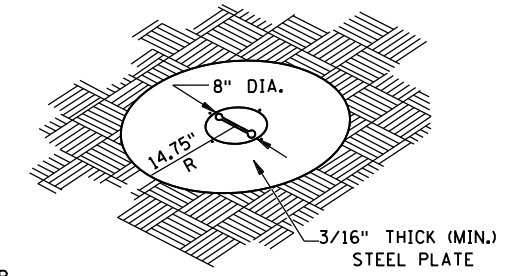
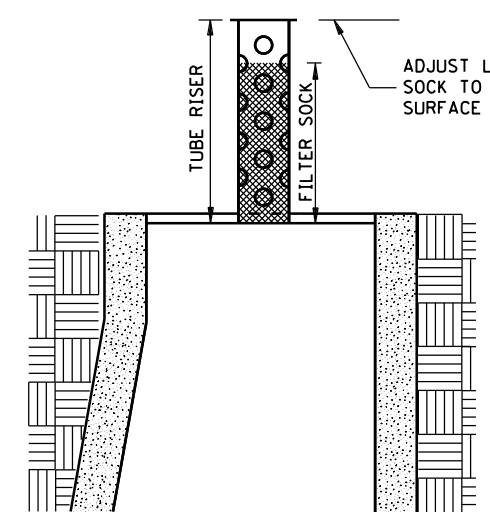
NOTE: THE SEDIMENT CONTROL BARRIER SHALL BE A METAL OR PLASTIC/POLYETHYLENE RISER SIZED TO FIT INSIDE THE CATCH BASIN/MANHOLE; HAVE PERFORATIONS TO ALLOW FOR WATER INFILTRATION; HAVE AN OVERFLOW OPENING, FLANGES AND A LID/COVER.



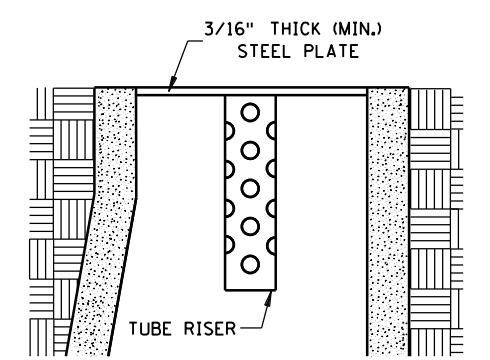
ROCK LOG/COMPOST LOG



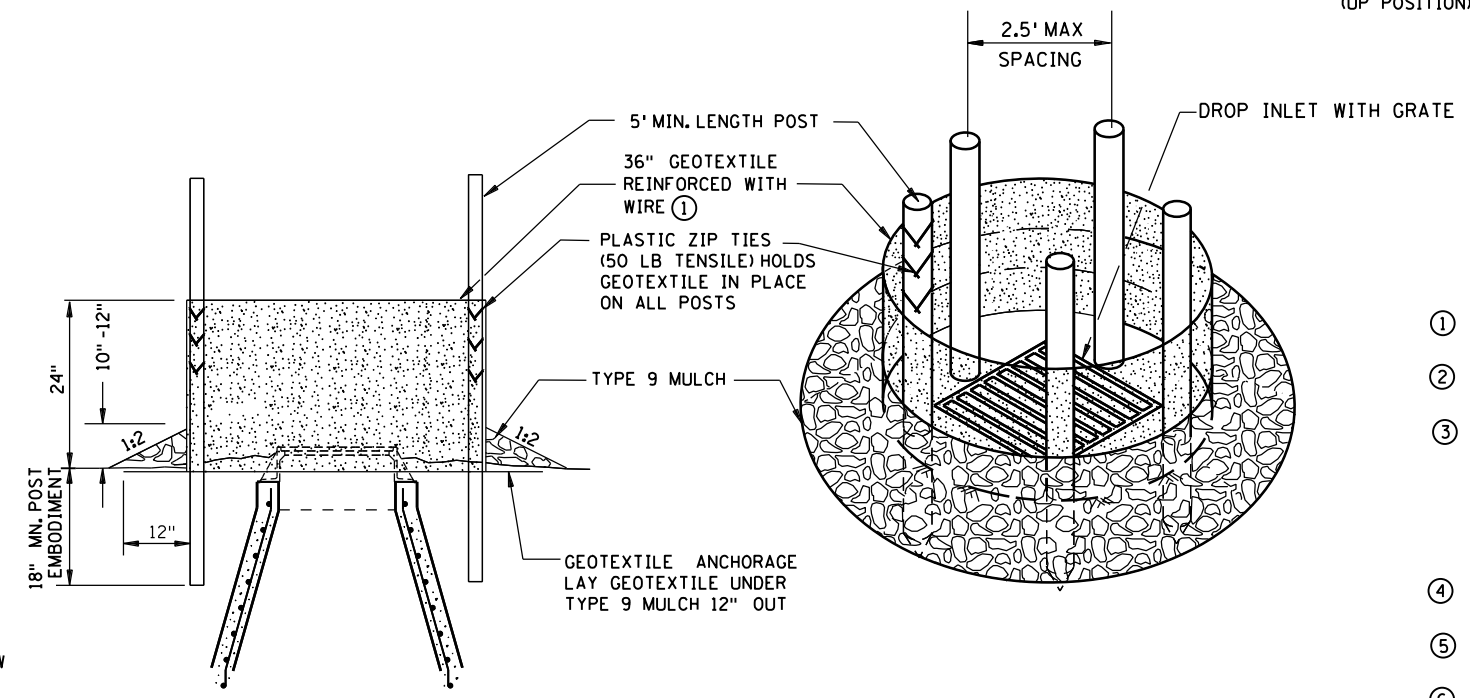
TUBE RISER



PERSPECTIVE VIEW



POP-UP HEAD



SILT FENCE RING AND ROCK FILTER BERM

USE WHERE INLET DRAINS IN AN AREA WITH SLOPES AT 1:3 OR LESS

NOTES:

- SEE SPECS. 2573, 3137, & 3886.
- DEVICES MUST BE ADJUSTED ACCORDINGLY AS TO NOT CAUSE FLOODING ON ROADWAY THAT WOULD IMPEDE TRAFFIC FLOW.
- ① ALL GEOTEXTILE USED FOR INLET PROTECTION SHALL BE MONOFILAMENT IN BOTH DIRECTIONS, MEETING SPEC. 3886.
- ② FINISHED SIZE, INCLUDING POCKETS WHERE REQUIRED SHALL EXTEND A MINIMUM OF 10 INCHES AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
- ③ INSTALLATION NOTES: DO NOT PLACE FILTER BAG INSERT IN INLETS SHALLOWER THAN 30 INCHES, MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE. THE PLACED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE OF 3 INCHES BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES. WHERE NECESSARY THE CONTRACTOR SHALL CLINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3 INCH SIDE CLEARANCE.
- ④ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2 INCH X 4 INCH OR USE A ROCK SOCK OR SAND BAGS IN PLACE OF THE FLAP POCKETS.
- ⑤ SOCK HEIGHT MUST NOT BE SO HIGH AS TO SLOW DOWN WATER FILTRATION TO CAUSE FLOODING OF THE ROADWAY.
- ⑥ GEOTEXTILE SOCK BETWEEN 4-10 FEET LONG AND 4-6 INCH DIAMETER. SEAM TO BE JOINED BY TWO ROWS OF STITCHING WITH A PLASTIC MESH BACKING OR PROVIDE A HEAT BONDED SEAM (OR APPROVED EQUIVALENT). FILL ROCK LOG WITH OPEN GRADED AGGREGATE CONSISTING OF SOUND DURABLE PARTICLES OF COARSE AGGREGATE CONFORMING TO SPEC. 3137 TABLE 3137-1; CA-3 GRADATION.

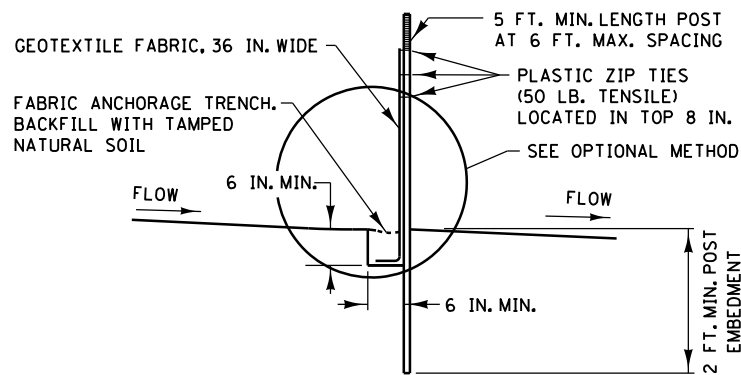
REVISION:
APPROVED: 2-28-2017
<i>Chief Environmental Officer</i>

<p>MINNESOTA DEPARTMENT OF TRANSPORTATION</p>	STANDARD PLAN 5-297.405	4 OF 8
	<p>APPROVED: 2-28-2017</p> <p>REVISOR:</p>	
<p>STATE DESIGN ENGINEER</p>		

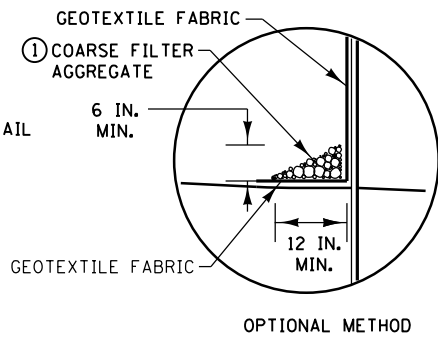
TEMPORARY SEDIMENT CONTROL
STORM DRAIN INLET PROTECTION

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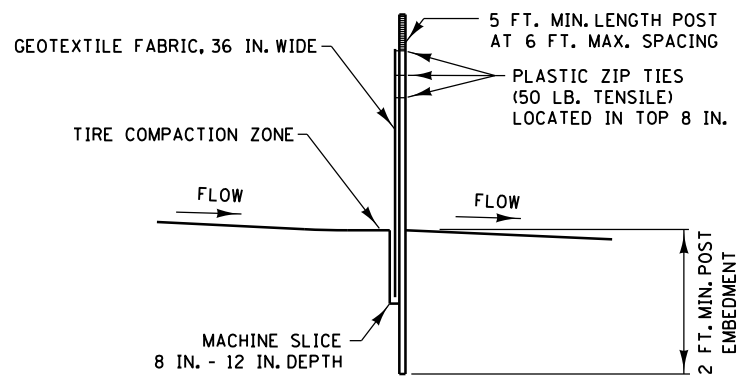
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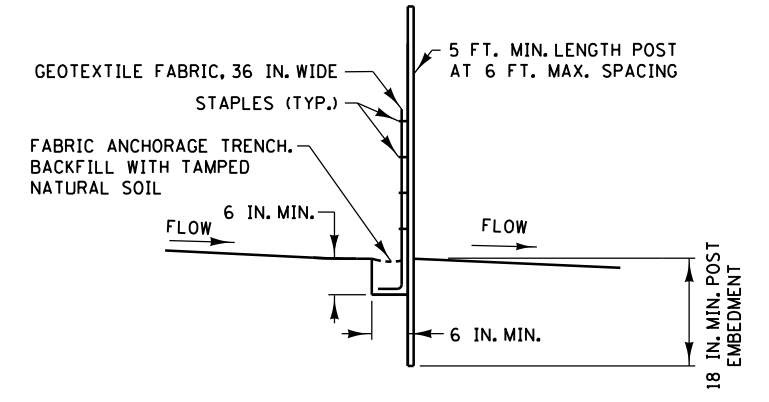
**SILT FENCE TYPE HI ②
(HAND INSTALLED)**



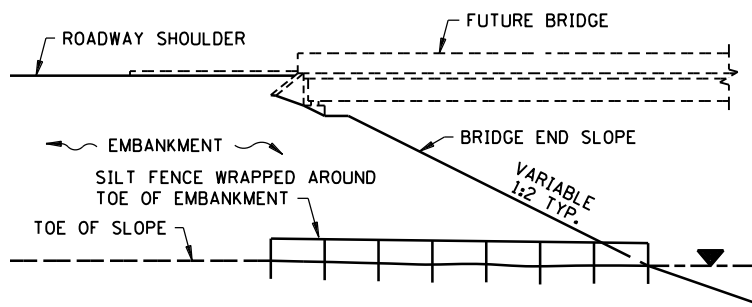
OPTIONAL METHOD



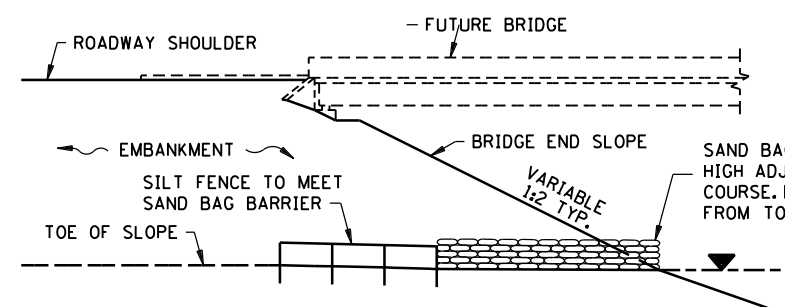
**SILT FENCE TYPE MS ②
(MACHINE SLICED)**



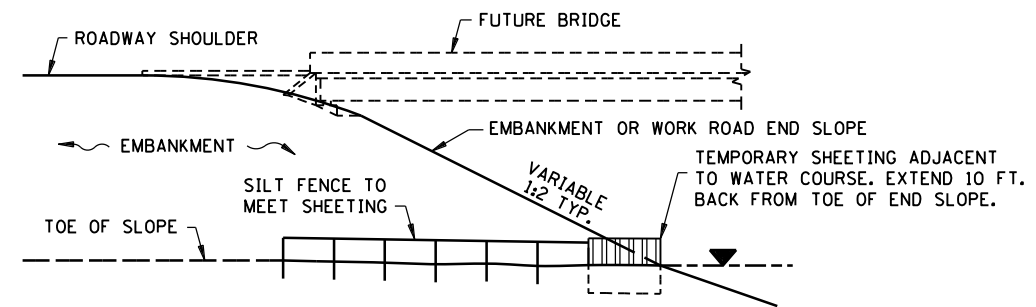
**SILT FENCE TYPE PA ③
(PREASSEMBLED)**



SILT FENCE ONLY ④

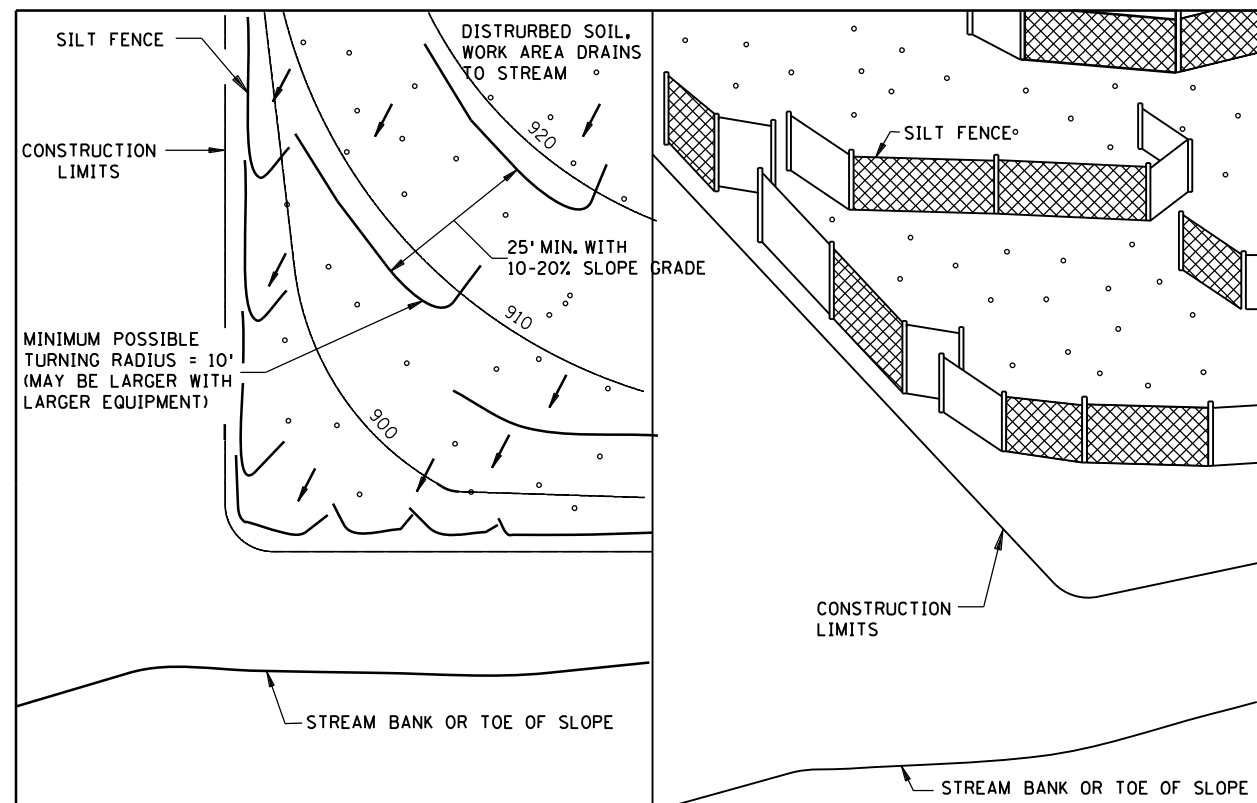


SILT FENCE WITH SAND BAGS ⑤



SILT FENCE WITH SHEETING ⑥

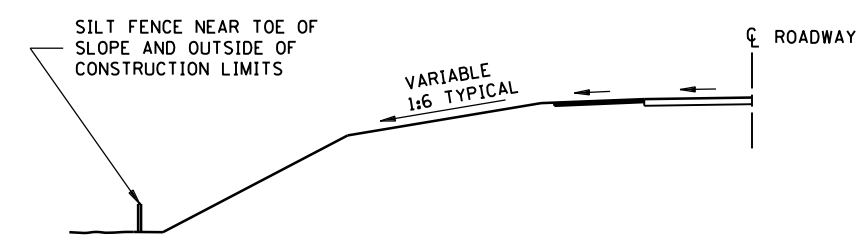
INSTALLATION AT BRIDGE EMBANKMENT ADJACENT TO WATER



PLAN VIEW

PERSPECTIVE VIEW

J-HOOK INSTALLATION



LOCATION AT TOE OF ROADWAY EMBANKMENT

NOTES:

- SEE SPECS. 2573, 3149 & 3886.
- ① COARSE FILTER AGGREGATE (SPEC. 3149) SHALL BE INCIDENTAL.
- ② TO PROTECT AREAS FROM SHEET FLOW, MAXIMUM CONTRIBUTING AREA: 1 ACRE.
- ③ TO PROTECT AREAS FROM SHEET FLOW, MAXIMUM CONTRIBUTING AREA: 0.25 ACRE.
- ④ WATER COURSE FLOW VELOCITY: STANDING. CONTRIBUTING SLOPE AREA: 1.1/2 ACRE.
- ⑤ WATER COURSE FLOW VELOCITY: 1 TO 7 FT./SEC. CONTRIBUTING SLOPE AREA: 1 ACRE.
- ⑥ WATER COURSE FLOW VELOCITY: 8 TO 15 FT./SEC. CONTRIBUTING SLOPE AREA: 3 ACRES.

REVISION:
APPROVED: 2-28-2017
[Signature]
CHIEF ENVIRONMENTAL OFFICER

MINNESOTA
DEPARTMENT OF TRANSPORTATION
[Signature]
STATE DESIGN ENGINEER

STANDARD PLAN 5-297.405 6 OF 8
APPROVED: 2-28-2017
REVISED:

**TEMPORARY SEDIMENT CONTROL
SILT FENCE**

NOTES & GUIDELINES

GENERAL INFORMATION:

1. ALL DISTANCES ARE APPROXIMATE.
2. WHEN WORK IS BEING PERFORMED WITHIN 6 FEET OF CSAH 17 TRAFFIC THE CONTRACTOR SHALL PROVIDE A SHORT TERM LANE CLOSURE. LANE CLOSURES ON CSAH 17 WILL NOT BE ALLOWED 6AM TO 9AM SOUTHBOUND AND 3PM TO 6PM NORTHBOUND.
3. LONGITUDINAL DROPOFFS SHALL BE PROTECTED AS REQUIRED IN THE "MINNESOTA TEMPORARY TRAFFIC CONTROL FIELD MANUAL".
4. IF THE CONTRACTOR DECIDES TO PERFORM THE CONSTRUCTION WORK IN A SEQUENCE OTHER THAN SHOWN IN THIS TRAFFIC CONTROL PLAN THE CONTRACTOR SHALL PROVIDE COMPLETE REVISED TRAFFIC CONTROL PLANS TO BE APPROVED BY THE ENGINEER.

SIGNING:

1. ALL TEMPORARY SIGNS ARE REQUIRED TO BE CRASHWORTHY PER THE AASHTO MANUAL FOR ASSESSING SAFETY HARDWARE 2016 (MASH-2016). TEMPORARY SIGN STRUCTURES THAT ARE CRASHWORTHY UNDER THE NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM REPORT 350 (NCHRP-350) MAY BE USED PROVIDED THE DEVICES WERE ACQUIRED BY THE CONTRACTOR PRIOR TO DECEMBER 31ST, 2019. THE MINNESOTA TYPE "C" AND "D" BRACED LEG U-CHANNEL (KNEE BRACE) SIGN SUPPORT IS NOT ALLOWED.
2. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THE FINAL SIGNS TO ASSURE THAT THE FINAL SIGNS ARE PLACED AS NEEDED, OR PROVIDE TEMPORARY SIGNING UNTIL THE FINAL SIGNING IS PLACED.
3. WHEN MULTIPLE GROUND MOUNTED SIGN STRUCTURES ARE PLACED ADJACENT TO EACH OTHER THERE SHOULD BE NO MORE THAN 2 POSTS WITHIN 84" OF EACH OTHER. WHEN THIS SPACING CAN NOT BE MAINTAINED, THEN SIGN STRUCTURES SHALL BE OFFSET, AND STAGGERED WITH A MINIMUM OF 4' BETWEEN SIGN STRUCTURES BOTH LATERALLY AND LONGITUDINALLY. EXAMPLE SHOWS DETOUR SIGNAGE, BUT THIS REQUIREMENT APPLIES TO ALL SIGNAGE.
4. WHEN A SIGN OR BARRICADE IS ORIENTED SUCH THAT VISIBILITY TO ROAD USERS INCLUDING BIKES AND PEDESTRIANS IS REDUCED ENOUGH TO CAUSE A HAZARD, DELINEATE THE SIGN/BARRICADE WITH APPROPRIATE DEVICES.
5. TEMPORARY SIGNS SHALL BE PLACED SUCH THAT OBSTACLES DO NOT BLOCK THEM FROM BEING VIEWED BY APPROACHING ROAD USERS. OBSTACLES MAY INCLUDE, BUT ARE NOT LIMITED TO, LIGHT POLES, TREES, SIGNS, AND BUILDINGS.
6. TEMPORARY SIGNS SHALL BE PLACED AND ORIENTED APPROXIMATELY AS SHOWN IN THE PLAN, AT RIGHT ANGLES TO DIRECTION OF AND FACING THE TRAFFIC THEY ARE INTENDED TO SERVE, UNLESS OTHERWISE SPECIFIED.
7. LONGITUDINAL DROPOFFS SHALL BE SIGNED AS SHOWN IN THE "MINNESOTA TEMPORARY TRAFFIC CONTROL FIELD MANUAL" PAGES (6K-aj) THRU (6K-al) UNLESS OTHERWISE SPECIFIED IN THESE PLANS.
8. AFTER REMOVAL OF SIGN AND/OR SIGN BASE, BACK FILL, COMPACT, AND LEVEL SOIL TO MATCH SURROUNDING SOIL.

PAVEMENT MARKING:

1. MASK OR REMOVE ANY CONFLICTING PAVEMENT MARKINGS AS SHOWN IN THE PLAN OR APPROVED BY THE ENGINEER.
2. ALL TEMPORARY PAVEMENT MARKINGS SHALL BE WET REFLECTIVE. ALL PAVEMENT MARKINGS IN TAPERS AND TRANSITIONS SHALL BE 6" IN WIDTH.
3. SEE 2582 IN THE SPECIAL PROVISIONS FOR PAVEMENT MARKING SPOTTING RESPONSIBILITIES.

CONSTRUCTION INFORMATION SIGNING:

1. THE CONTRACTOR SHALL USE CONSTRUCTION INFORMATION SIGNING AS SHOWN IN THE PLAN WHICH ARE TO BE USED AS FOLLOWS:

PLACE THE G20-X1 ADVANCE WORK NOTICE SIGN(S) 7 DAYS PRIOR TO THE PLANNED CLOSURE DATE.

IF CONSTRUCTION INFORMATION SIGNING IS NO LONGER VISIBLE TO THE MOTORING PUBLIC ONCE WORK BEGINS, MOVE SAID SIGNING TO A SITE IN ADVANCE OF THE WORK ZONE OR CLOSURE AS SHOWN IN THE PLAN OR APPROVED BY THE ENGINEER.

PAVEMENT MARKING SYMBOLS AND MATERIALS LEGEND

- — — — — SOLID LINE PAVEMENT MARKING WITH TEMPORARY RAISED PAVEMENT MARKERS AT 10' SPACES
- — — — — BROKEN LINE-40' CYCLE (10' LINE, 30' GAP)

STRIPING KEY

 BOX-REMOVABLE PREFORMED PLASTIC MARKING

1ST DIGIT WIDTH 4", 8", ETC.	2ND DIGIT PATTERN S - SOLID B - BROKEN T - DOTTED D - DOUBLE SOLID K - DOUBLE BROKEN H - DOUBLE DOTTED	3RD DIGIT COLOR W - WHITE Y - YELLOW B - BLACK
---------------------------------	--	---

EXAMPLE:  = 4" SOLID LINE WHITE REMOVABLE PREFORMED PLASTIC MARKING

TRAFFIC CONTROL INDEX

SHEET NO.	DESCRIPTIONS
21	TEMPORARY TRAFFIC CONTROL TITLE SHEET
22	SIGN TABULATION
23	ANOKA COUNTY HIGHWAY DEPARTMENT SIGN DETAILS
24	ANOKA COUNTY HIGHWAY DEPARTMENT SIGN PLACEMENT
25	ANOKA COUNTY HIGHWAY DEPARTMENT TEMPORARY SIGN COVERING
26	STAGE 1



WSB PROJECT NO.: 019869-000

SCALE: AS SHOWN
DESIGN BY: AJF
PLAN BY: AJF
CHECK BY: NEH

NO.	DATE	DESCRIPTION

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

NICHOLAS E. HENTGES, PE

DATE: 7/29/2022 LIC. NO.: 44620

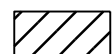

CITY OF BLAINE, MN
LEXINGTON AVENUE NE AT
131ST AVENUE NE
INTERSECTION IMPROVEMENTS



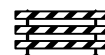




CONSTRUCTION STAGING & TRAFFIC CONTROL

SHEET 21 OF 53 SHEETS

TRAFFIC CONTROL DEVICES & SYMBOLS LEGEND

SYMBOL DESCRIPTION

-  AREA CLOSED TO TRAFFIC / WORK AREA
-  CONSTRUCT UNDER TRAFFIC

-  TRAFFIC CONTROL SIGN
-  TYPE III BARRICADE = 
-  FLASHING ARROW BOARD TYPE C = (4'X8' UNLESS OTHERWISE NOTED) 
-  DRUM-LIKE CHANNELIZER (TYPE B) = 

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"R" SERIES			
SIGN	SIGN NO.	COLOR	SIZE (IN. X IN.) (WxH)
	R3-6 (R/L)	BLACK ON WHITE	30X36
	R9-9	BLACK ON WHITE	30X18
	R11-2M	BLACK ON WHITE	48X30

"W" SERIES					
SIGN	SIGN NO.	COLOR	SIZE (IN. X IN.) (WxH)	ASSEMBLY (IN. X IN.) (WxH)	NUMBER OF POST
	W8-23	BLACK ON ORANGE	48X48	48X48	2
	W20-1	BLACK ON ORANGE	48X48	48X48	2
	W20-X5	BLACK ON ORANGE	48X48	48X48	2
	W20-X17	BLACK ON ORANGE	48X48	48X48	2

NOTE: FOR MEDIAN PLACEMENT WHERE THERE IS INSUFFICIENT SPACE FOR 48X48 WARNING SIGNS, USE SIZE 36X36 INSTEAD.

"G" SERIES						
SIGN	SIGN NO.	COLOR	SIZE (IN. X IN.) (WxH)	ASSEMBLY (IN. X IN.) (WxH)	NUMBER OF POST	POST SPACING (INCHES)
	G20-X1	BLACK ON ORANGE	72X60	72X60	2	42

GENERAL NOTES:

- SIGN STRUCTURE TABULATIONS INDICATE SQUARE TUBE GROUND MOUNTED SIGN STRUCTURES THAT ARE MASH-16 COMPLIANT.
- USE PRODUCTS FROM THE BASES FOR SQUARE TUBE SIGN STRUCTURES APPROVED/QUALIFIED PRODUCTS LIST FOR THE INDICATED SQUARE TUBE RISER POST SIZE. PLACE PER THE MANUFACTURER'S SPECIFICATIONS.
- ALUMINUM STRINGERS SHALL BE USED FOR SIGNS 36 INCHES AND WIDER. SEE MANUFACTURER'S SPECIFICATIONS FOR SQUARE TUBE MOUNTING DETAILS. STRINGERS ON SINGLE POST ASSEMBLIES ARE REQUIRED TO BE AT LEAST 9 INCHES IN FROM THE EDGE OF THE SIGN.
- UNLESS OTHERWISE INDICATED, USE 2-1/2 INCH RISER POSTS FOR GROUND MOUNTED SIGN STRUCTURES.

REVISIONS	
NO.	DESCRIPTION

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NICHOLAS E. HENTGES, PE
DATE: 7/29/2022 LIC. NO.: 44620

CITY OF BLAINE, MN
**LEXINGTON AVENUE NE AT
131ST AVENUE NE
INTERSECTION IMPROVEMENTS**

**CONSTRUCTION
STAGING
&
TRAFFIC
CONTROL**

PLOTTED/REVISED: 7/29/2022 12:24:34 PM

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WSB PROJECT NO.:
019869-000

SCALE: AS SHOWN
DESIGN BY: AJF
PLAN BY: AJF
CHECK BY: NEH

NO.	DATE	DESCRIPTION

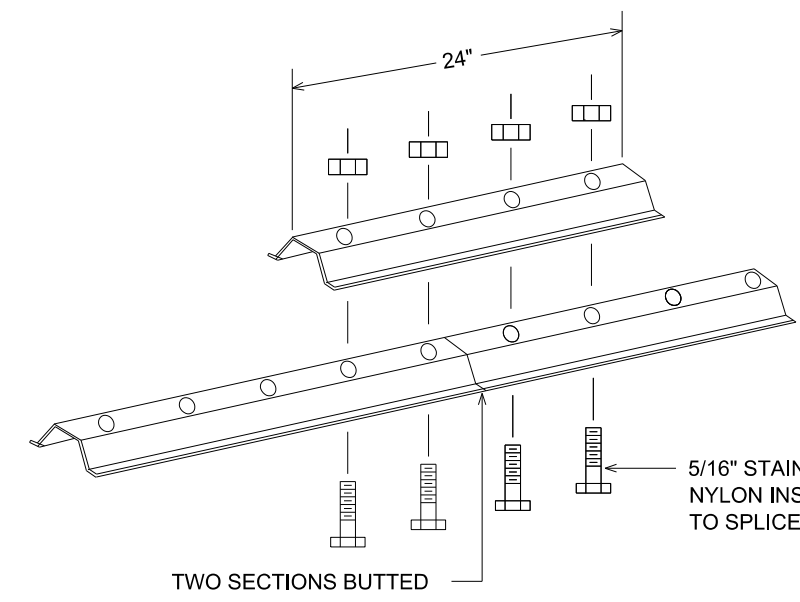
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

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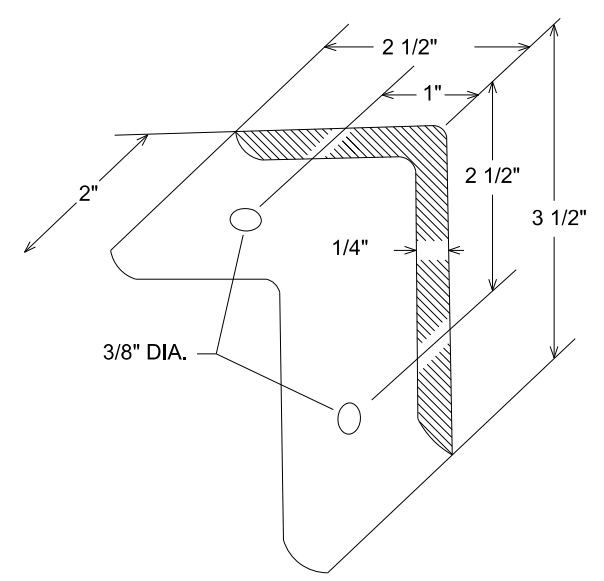
**CITY OF BLAINE, MN
LEXINGTON AVENUE NE AT
131ST AVENUE NE
INTERSECTION IMPROVEMENTS**

**CONSTRUCTION
STAGING
&
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CONTROL**

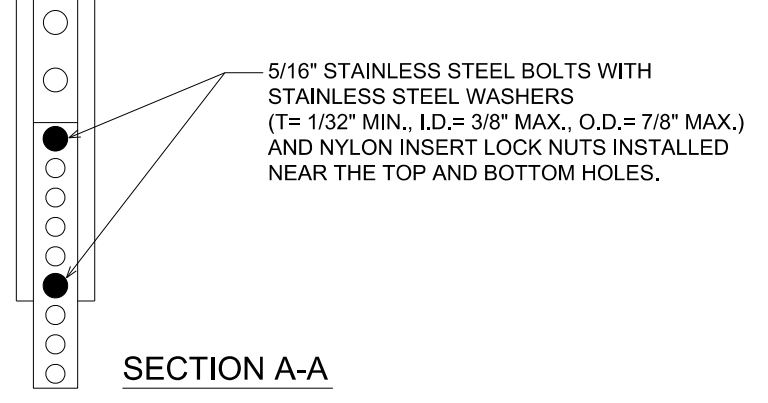
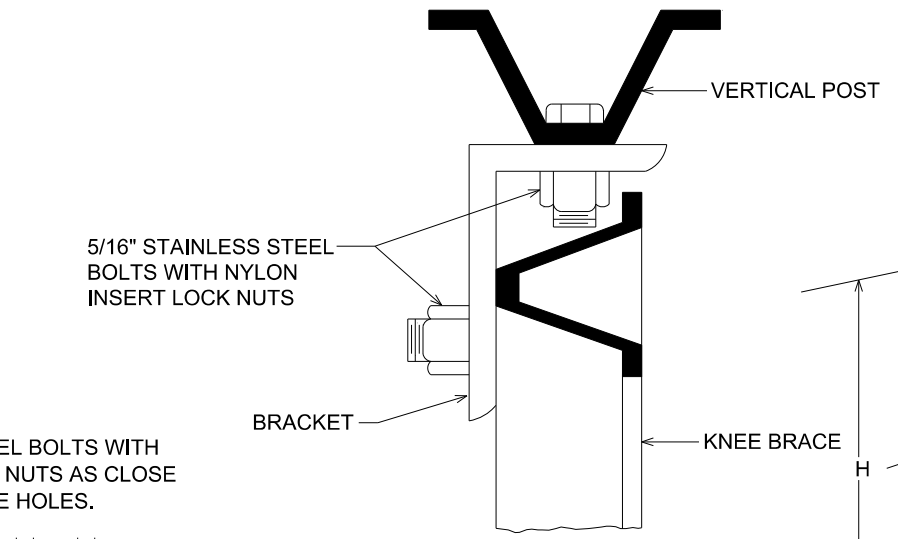
SHEET
23
OF
53
SHEETS



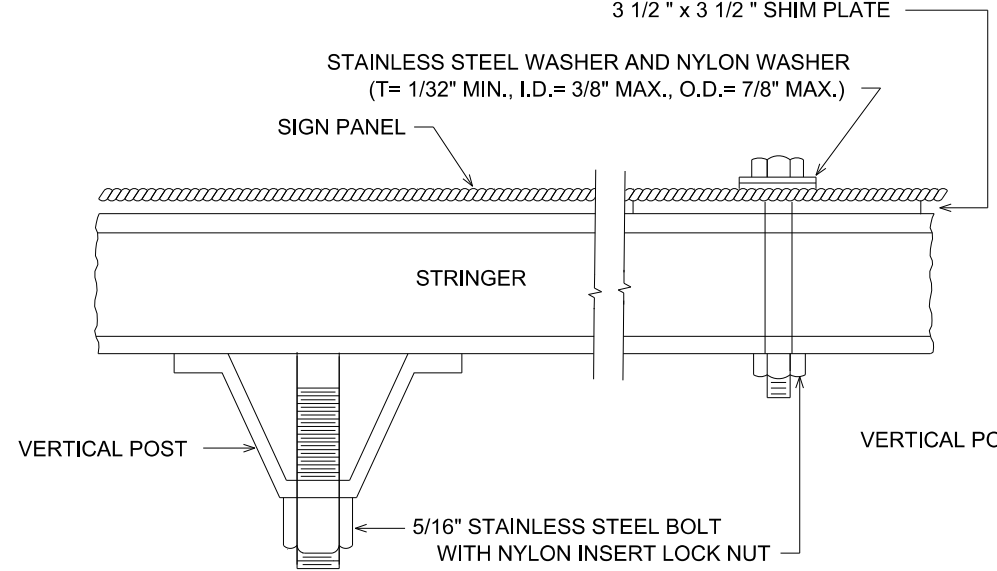
**LATERAL BRACE OR STRINGER
SPlice DETAIL (EXPLODED VIEW)**



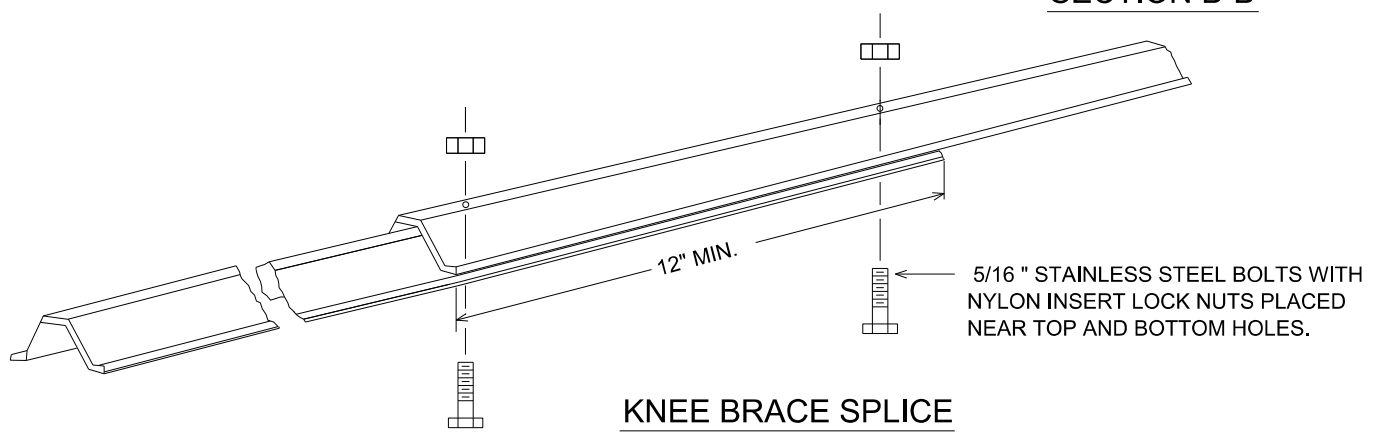
A-FRAME BRACKET
(STEEL MN/DOT 3306 GALVANIZED PER MN/DOT 3394)



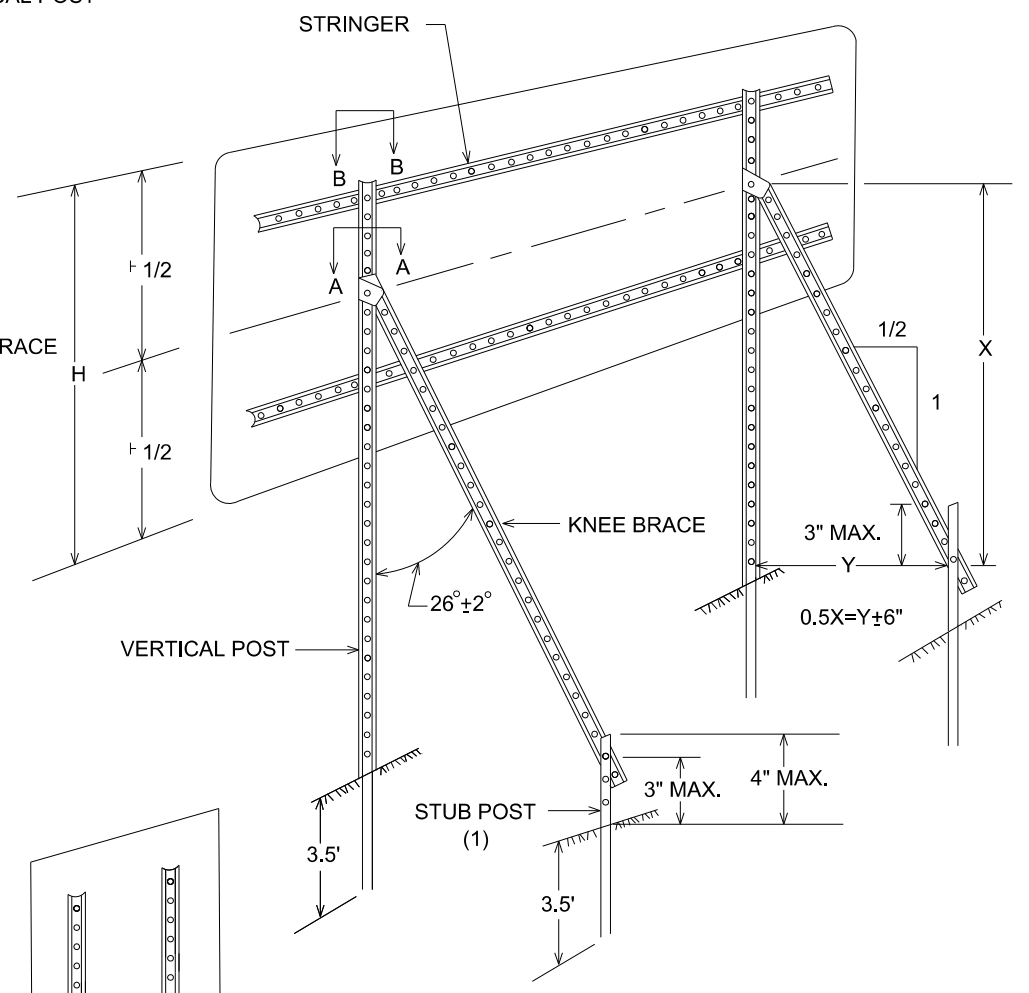
SECTION A-A
3 1/2" x 3 1/2" SHIM PLATE



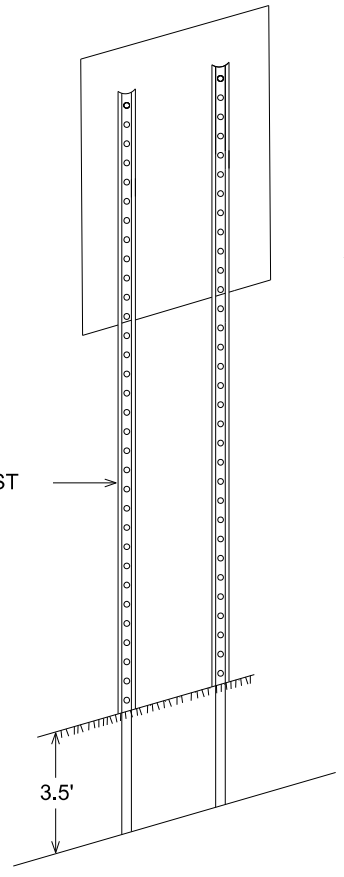
SECTION B-B



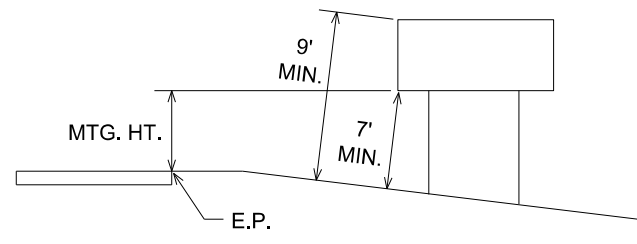
KNEE BRACE SPlice



**TYPICAL "A-FRAME" INSTALLATION
TYPE "D" SIGNS**



**TYPICAL INSTALLATION 36" AND LARGER
TYPE "C" SIGNS**



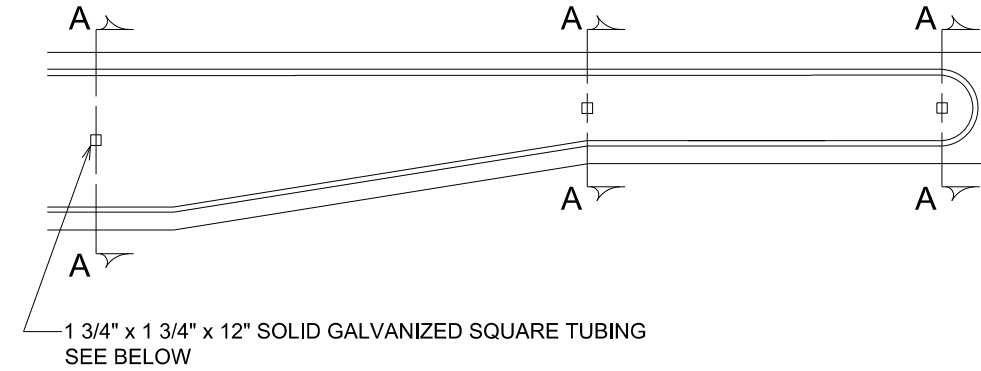
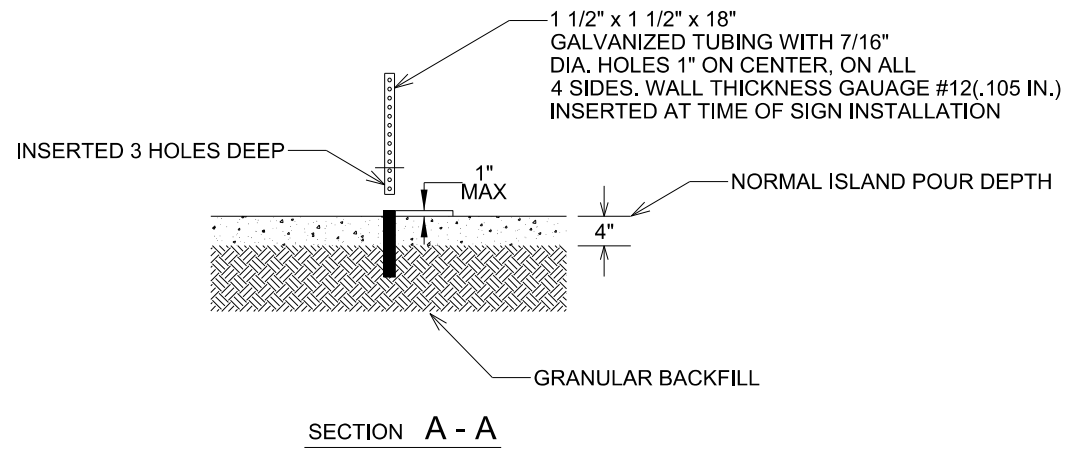
TYPICAL MOUNTING

(1) OFFSET STUB POST 1' TOWARD ROADWAY
RELATIVE TO VERTICAL POST.

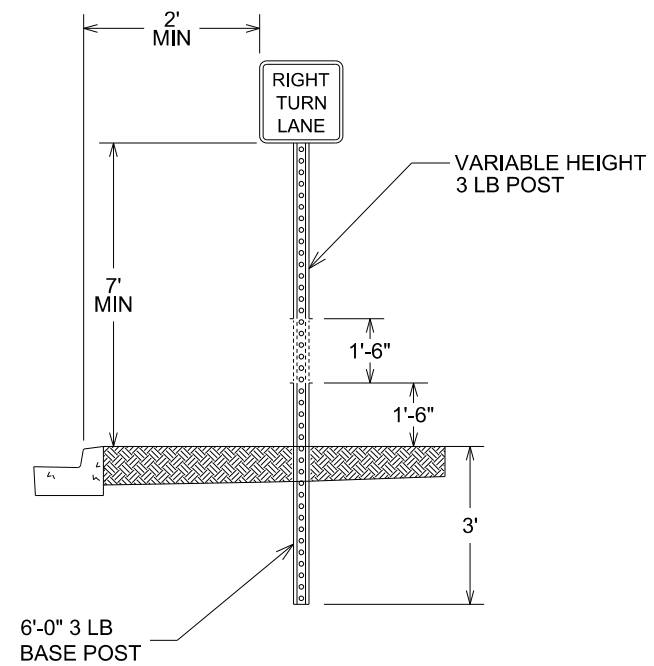
**TYPE C & D SIGN
STRUCTURAL DETAILS**

PLOTTED/REVISED: 7/29/2022 12:24:35 PM

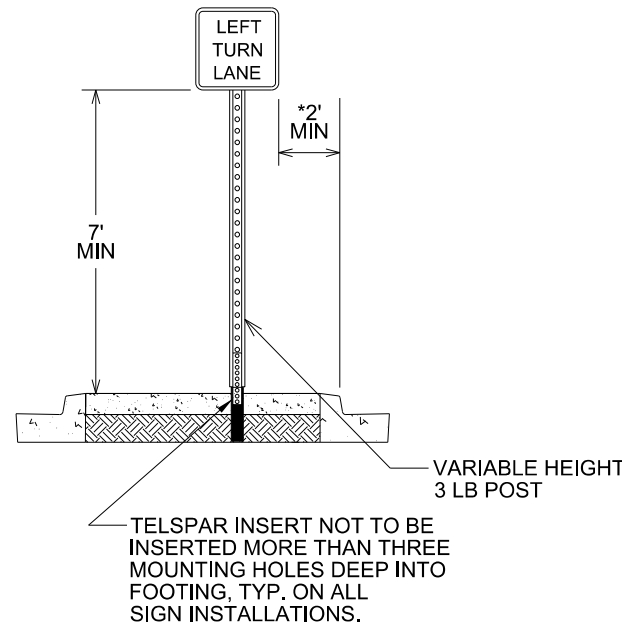
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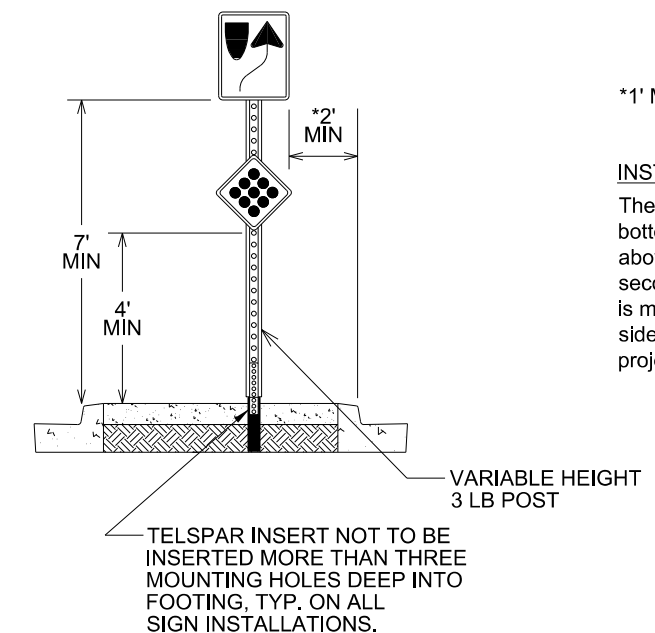
**GROUND POST MOUNT SIGN
INSTALLATION TYPICAL**



**ISLAND MOUNT BREAK-AWAY SIGN
INSTALLATION TYPICAL**



**ISLAND MOUNT BREAK-AWAY SIGN
SIGN INSTALLATION TYPICAL
KEEP RIGHT/CLUSTER**



*1' MIN FOR NARROW URBAN LOCATIONS

INSTALLATION NEAR SIDEWALK (MN MUTCD)
The minimum height, measured vertically from the bottom of the sign to the sidewalk, of signs installed above sidewalks shall be 7 feet. If the bottom of a secondary sign that is mounted below another sign is mounted lower than 7 feet above a pedestrian sidewalk or pathway, the secondary sign shall not project more than 4 inches into the pedestrian facility.

wsb

WSB PROJECT NO.:
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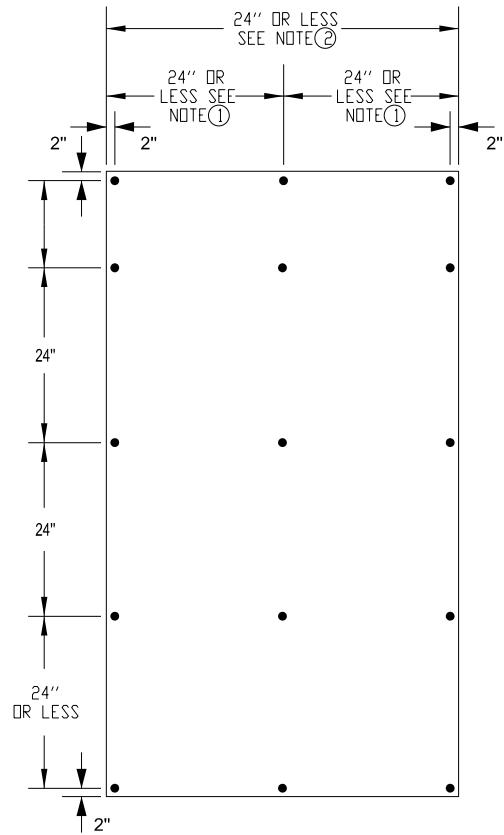
NICHOLAS E. HENTGES, PE
DATE: 7/29/2022 LIC. NO.: 44620

**CITY OF BLAINE, MN
LEXINGTON AVENUE NE AT
131ST AVENUE NE
INTERSECTION IMPROVEMENTS**

**CONSTRUCTION
STAGING
&
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PLOTTED/REVISED: 7/29/2022 12:24:35 PM

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OVERLAY ASSEMBLY STEPS FOR COVERING COMPLETE OR PORTION OF EXTRUDED SIGN PANEL:

- 1) DRILL 1/4" HOLES ON THE SHEET ALUMINUM OVERLAYS IN ACCORDANCE WITH THE HOLE SPACING ON THE DIAGRAM. OUTSIDE HOLES SHALL NOT BE SPACED MORE THAN 24" APART.
- 2) ATTACH PLASTIC SPACER(S) (1/4" MIN THICKNESS, 3/8" I.D. AND 7/8" O.D.) WITH DOUBLE FACED TAPE, CENTERED BEHIND EACH DRILLED HOLE.
- 3) POSITION THE FIRST OVERLAY PANEL'S BOTTOM EDGE FLUSH WITH THE BOTTOM OF THE INPLACE EXTRUDED SIGN PANEL AND THE OVERLAY PANEL'S LOWER LEFT EDGE FLUSH WITH THE LOWER LEFT EDGE OF THE BOTTOM INPLACE EXTRUDED PANEL SECTION.
- 4) DRILL ALL OF THE OUTSIDE HOLES THROUGH THE INPLACE EXTRUDED SIGN PANEL AND ATTACH THE OVERLAY PANEL WITH SHEET METAL SCREWS.
- 5) DRILL THE INNER HOLES THROUGH THE INPLACE EXTRUDED SIGN PANEL AND ATTACH WITH SHEET METAL SCREWS AS SPECIFIED IN STEP 4 ABOVE.
- 6) ABUT THE NEXT OVERLAY PANEL TO THE FIRST ATTACHED OVERLAY PANEL AND PERFORM THE SAME WORK AS SPECIFIED IN STEPS 4 AND 5 ABOVE.
- 7) PLACE EACH ADDITIONAL OVERLAY PANEL AS SPECIFIED IN STEP 6 ABOVE.

NOTES FOR COVERING COMPLETE OR PORTION OF EXTRUDED SIGN PANEL:

- ① THE CENTER SHEET METAL SCREWS SHALL BE SPACED AT 1/2 OF THE PANELS WIDTH.
- ② IF THE SHEET ALUMINUM PANEL IS GREATER THAN 48" WIDE, THE SHEET METAL SCREWS SPACING SHALL BE NO GREATER THAN 24". IF THE SHEET ALUMINUM PANEL IS LESS THAN 24" WIDE, THERE SHALL BE NO INNER HOLES.
- ③ VERTICAL SPACING FOR THE MOUNTING HOLES IS 50% OF THE PANEL HEIGHT. IF THE PANEL IS LESS THAN 24" HIGH, THERE SHALL BE NO INNER HOLES.
- ④ HORIZONTAL SPACING FOR MOUNTING HOLES SHALL NOT BE LESS THAN 15" NOR MORE THAN 24".

GENERAL NOTES:

SIGN PANEL OVERLAYS SHALL BE MADE OF A RIGID MATERIAL. (SHEET ALUMINUM, PLYWOOD, CORRUGATED PLASTIC, OR OTHER MATERIAL AS APPROVED BY THE ENGINEER), THE INSTALLATION SHALL ALLOW ADEQUATE AIR FLOW BETWEEN THE OVERLAY PANEL AND THE INPLACE SIGN PANEL BY PROVIDING A MINIMUM SPACING OF 1/4" (1" MAXIMUM).

IF SHEET METAL SCREWS ARE USED WITH CORRUGATED PLASTIC, FENDER WASHERS SHALL BE PLACED BETWEEN SCREWS AND PANEL OVERLAY.

SPACERS SHALL BE A MATERIAL THAT WILL NOT HARM THE SIGN SHEETING FACE (SUCH AS PLASTIC OR RUBBER).

ALL COVERING MATERIAL, MOUNTING HARDWARE AND FASTENERS SHALL BE REMOVED WHEN PANEL OVERLAY IS REMOVED.

SIGN PANEL OVERLAYS USED TO COVER ALL OR PART OF A SIGN SHALL BE THE SAME COLOR AS THE BACKGROUND COLOR OF THE SIGN TO BE COVERED AND SHALL COVER ALL OF THE SIGN OR MESSAGE TO BE COVERED UNLESS SHOWN OTHERWISE IN THE PLAN.

TAPE SHALL NOT BE APPLIED TO THE SIGN SHEETING SURFACE. PRE-MASK OR APPLICATION TAPE SHALL BE REMOVED PRIOR TO EXPOSURE TO SUNLIGHT.

OVERLAY ASSEMBLY COVERING TYPE C OR D SIGN PANEL:

A RIGID OPAQUE PANEL OVERLAY, THE OVERLAY PANEL SHOULD BE APPROXIMATELY THE SAME SIZE AS THE SIGN PANEL SUCH THAT THE SIGN MESSAGE IS COMPLETELY COVERED

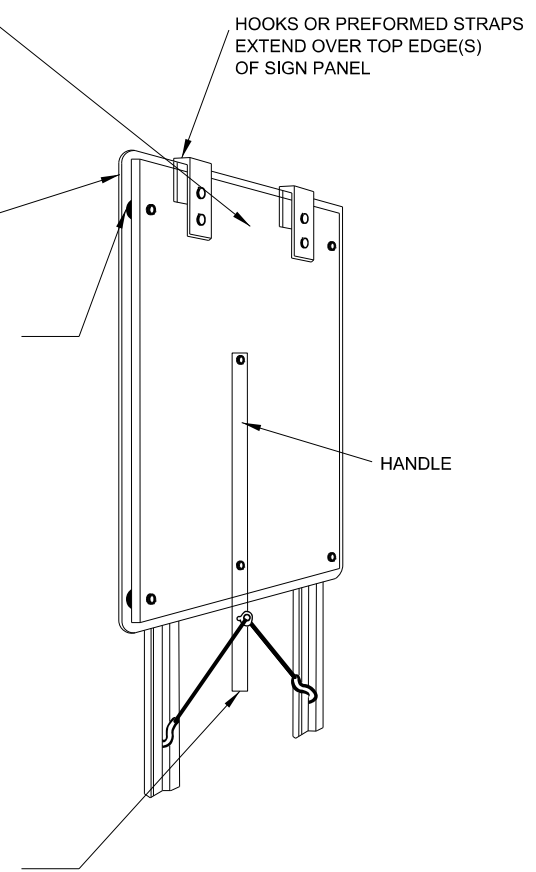
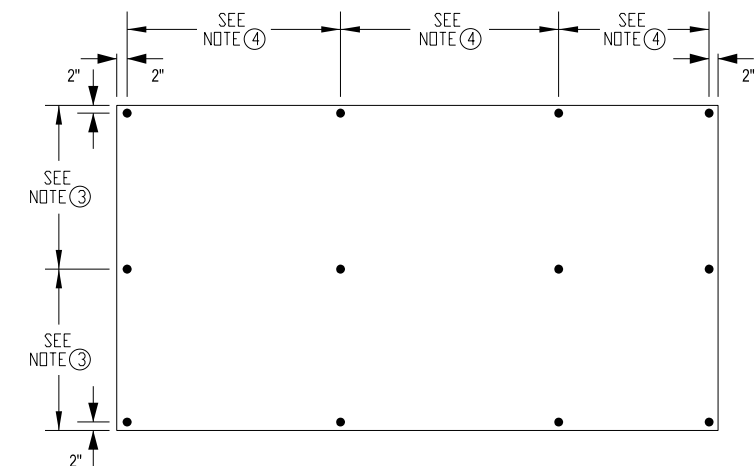
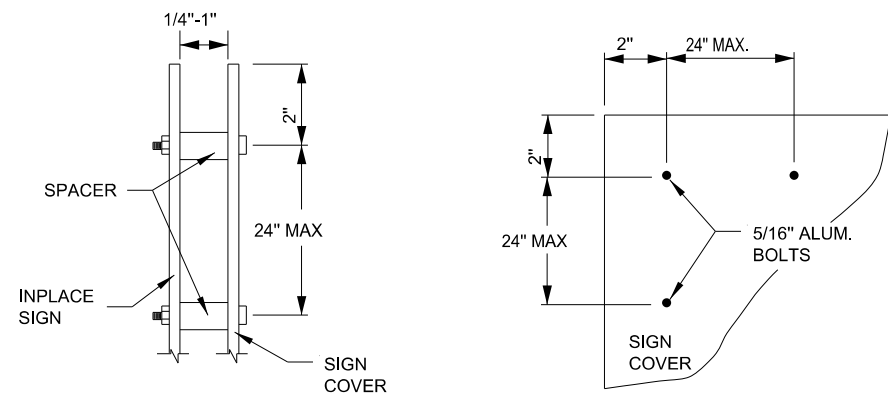
A SPACER IS REQUIRED IN ALL 4 CORNERS TO PROVIDE AIR FLOW GAP BETWEEN THE SIGN FACE AND OVERLAY PANEL

SPACERS SHALL ALLOW BETWEEN 1/4" TO 1" GAP AND BE A MATERIAL THAT WILL NOT HARM THE SIGN SHEETING FACE

ALL FASTENERS (SUCH AS bolts, HOOKS OR SCREWS) SHALL NOT TOUCH THE SIGN SHEETING FACE

THE OVERLAY PANEL SHALL BE ATTACHED TO THE SIGN STRUCTURE SUCH THAT IT WILL NOT MOVE DUE TO WIND

BOTTOM OF HANDLE SHALL BE SECURED TO PREVENT MOVEMENT. BOLT ON HANDLE SHALL BE ATTACHED TO OVERLAY PANEL AS TO NOT DAMAGE INPLACE SIGN PANEL.



WSB PROJECT NO.: 019869-000

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 PLAN BY: AJF CHECK BY: NEH

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NICHOLAS E. HENTGES, PE
 DATE: 7/29/2022 LIC. NO.: 44620

CITY OF BLAINE, MN
**LEXINGTON AVENUE NE AT
 131ST AVENUE NE
 INTERSECTION IMPROVEMENTS**

**CONSTRUCTION
 STAGING
 &
 TRAFFIC
 CONTROL**

PLOTTED/REVISED: 7/29/2022 12:24:37 PM

PATH & FILENAME: K:\1019869-000\Cad\Plan\19869-000-C-TRAF-PLAN-100.dgn

CSAH 17

CSAH 17



WSB PROJECT NO.:
019869-000

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NICHOLAS E. HENTGES, PE
DATE: 7/29/2022 LIC. NO.: 44620

LEGEND

- TRAFFIC DIRECTION
- [Hatched Box] AREA CLOSED TO TRAFFIC / WORK AREA
- [Dotted Box] CONSTRUCTION UNDER TRAFFIC

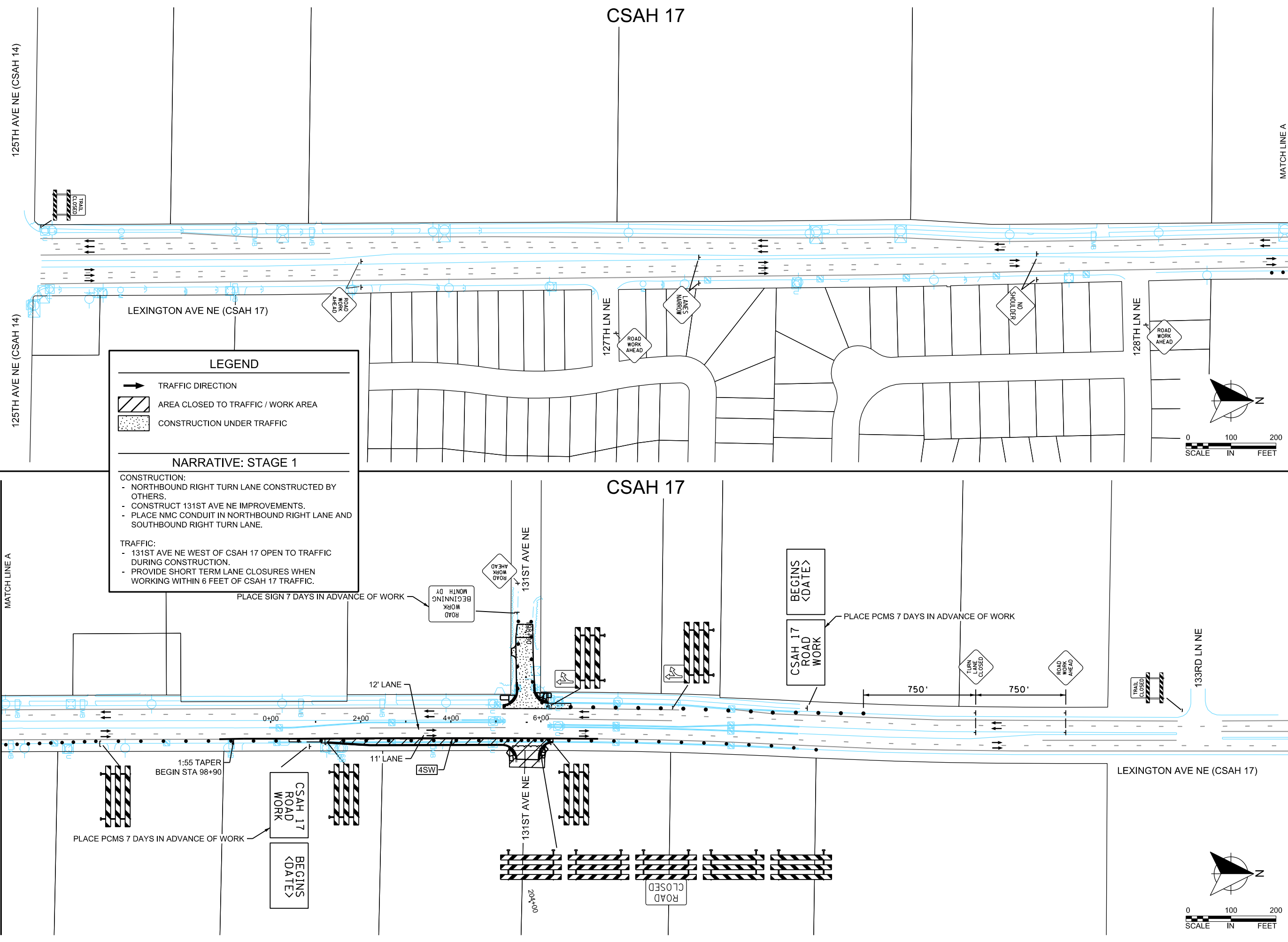
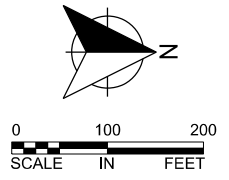
NARRATIVE: STAGE 1

CONSTRUCTION:

- NORTHBOUND RIGHT TURN LANE CONSTRUCTED BY OTHERS.
- CONSTRUCT 131ST AVE NE IMPROVEMENTS.
- PLACE NMC CONDUIT IN NORTHBOUND RIGHT LANE AND SOUTHBOUND RIGHT TURN LANE.

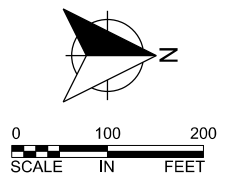
TRAFFIC:

- 131ST AVE NE WEST OF CSAH 17 OPEN TO TRAFFIC DURING CONSTRUCTION.
- PROVIDE SHORT TERM LANE CLOSURES WHEN WORKING WITHIN 6 FEET OF CSAH 17 TRAFFIC.



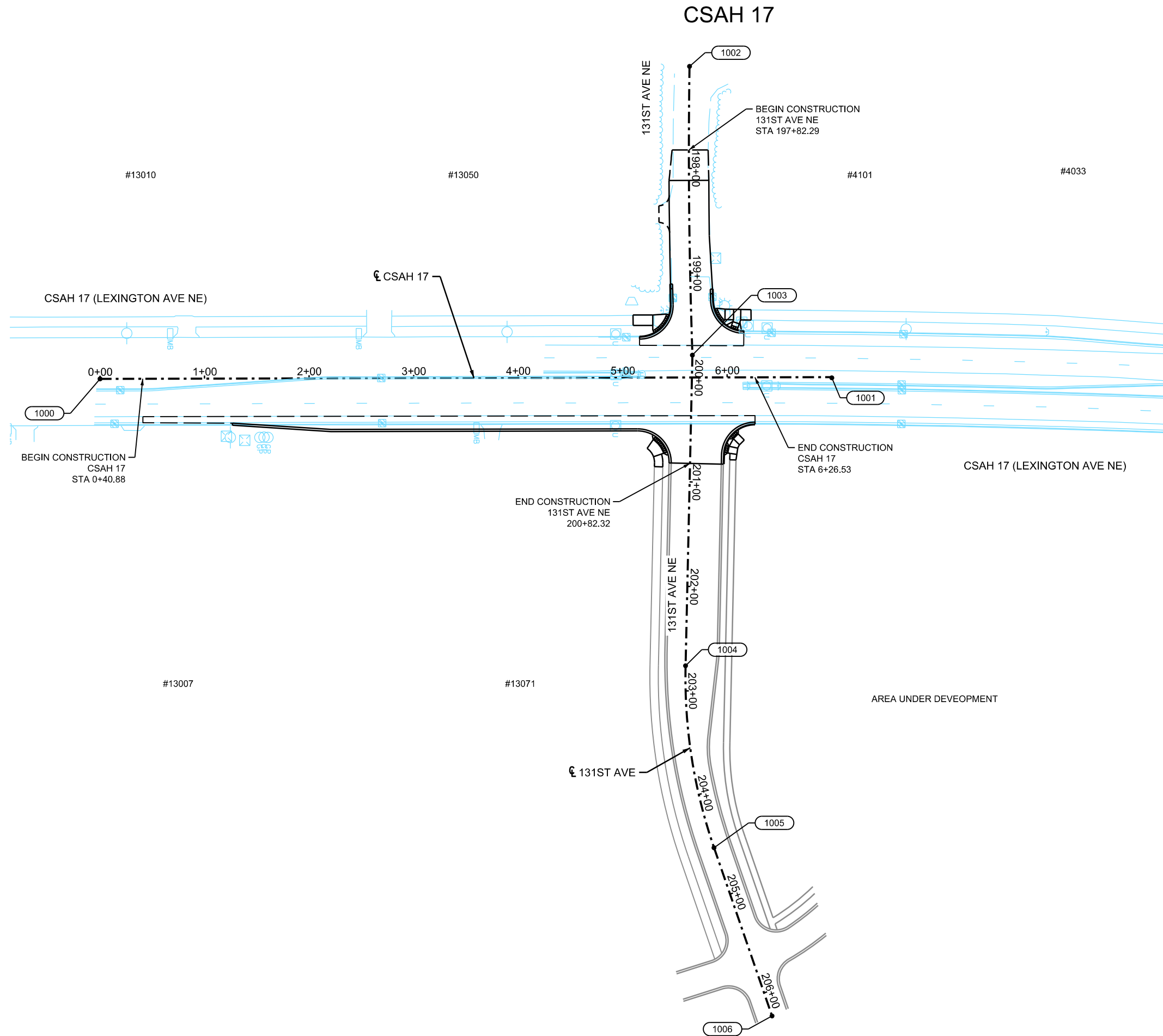
CITY OF BLAINE, MN
LEXINGTON AVENUE NE AT
131ST AVENUE NE
INTERSECTION IMPROVEMENTS

CONSTRUCTION STAGING & TRAFFIC CONTROL



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WSB PROJECT NO.:
019869-000

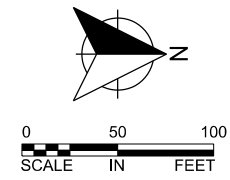
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CITY OF BLAINE, MN
**LEXINGTON AVENUE NE AT
131ST AVENUE NE
INTERSECTION IMPROVEMENTS**



HORIZONTAL CONTROL FOR THIS PLAN IS ANOKA COUNTY COORDINATE SYSTEM, NAD 83 (1996 ADJUSTMENT)

LEGEND
XXXX POINT NUMBER (POINT DETAILS FOUND ON ALIGNMENT TABULATION SHEETS)

ALIGNMENT PLAN

SHEET
27
OF
53
SHEETS

PLOTTED/REVISED: 7/29/2022 12:24:38 PM

PATH & FILENAME: K:\019869-000\Cad\Plan\19869-000-C-ALGN-TABS.dgn

ALIGNMENT TABULATION										
POINT NUMBER	POINT	STATION						COORDINATES		BEARING
			DELTA	DEGREE	RADIUS	TANGENT	LENGTH	X	Y	
CSAH 17										
1000	POT	0+00.00						526,737.492	162,299.549	
1001	POT	7+00.00						526,735.781	162,999.547	
131ST AVENUE NE										
1002	PC	197+02.355						526,438.510	162,863.552	S 89° 07' 35.1" E
	PI	198+40.534	2° 51' 48.1" LT	1° 02' 10.8"	5,528.752'	138.179'	276.300'	526,576.673	162,861.446	PI
	CC							526,522.803	168,391.662	
1003	PT	199+78.655						526,714.769	162,866.243	N 88° 00' 36.8" E
1004	PC	202+75.956						527,011.997	162,859.705	S 88° 44' 23.0" E
	PI	203+65.460	20° 17' 52.4" LT	11° 27' 33.0"	500.000'	89.504'	177.132'	527,101.480	162,857.736	PI
	CC							527,022.994	163,359.584	
1005	PT	204+53.089						527,186.089	162,886.931	N 70° 57' 44.6" E
1006	POT	206+23.34						527,347.030	162,942.466	



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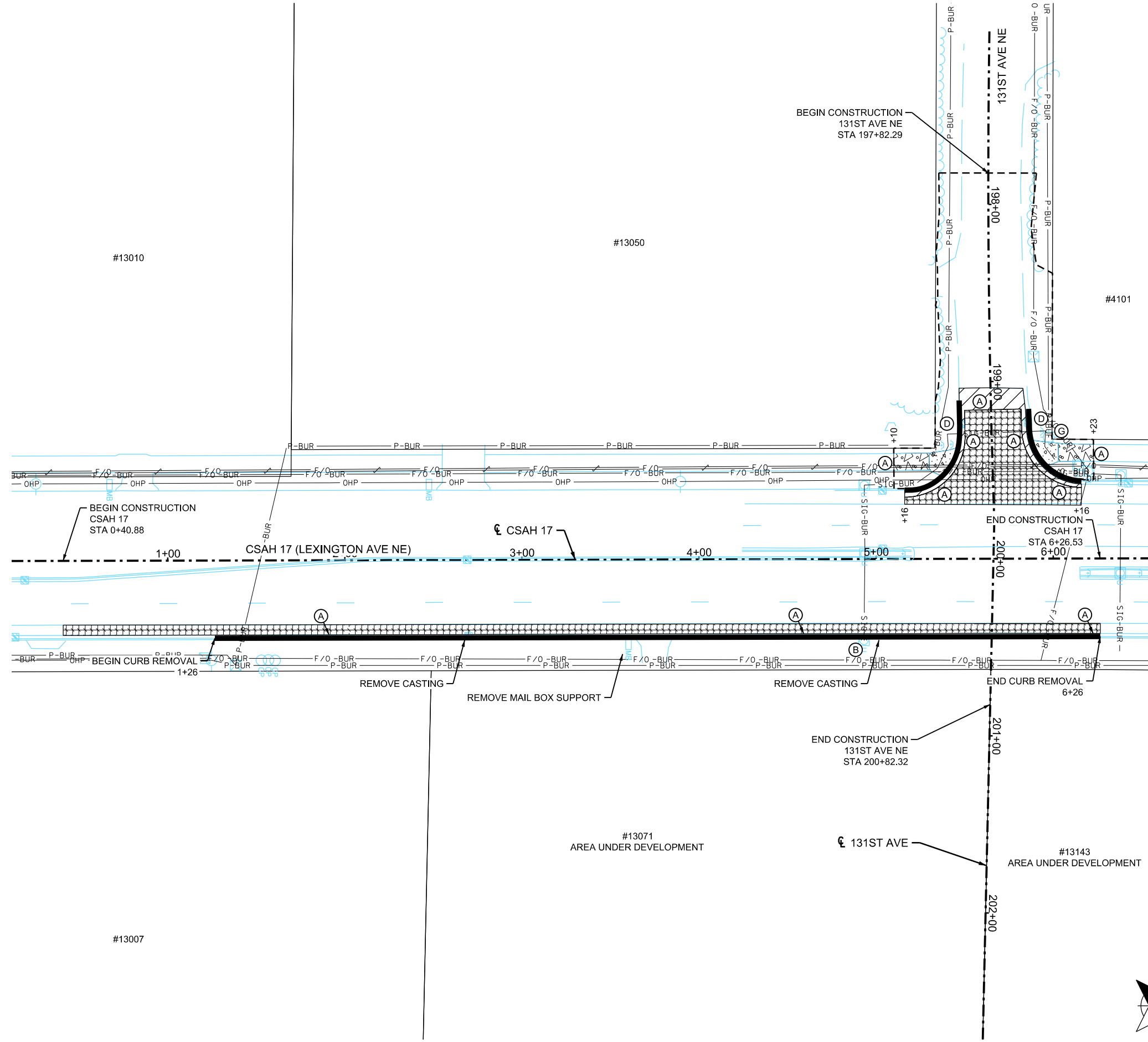
**CITY OF BLAINE, MN
LEXINGTON AVENUE NE AT
131ST AVENUE NE
INTERSECTION IMPROVEMENTS**

ALIGNMENT PLAN

CSAH 17

PLOTTED/REVISED: 7/29/2022 12:24:39 PM

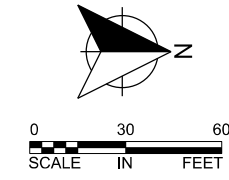
PATH & FILENAME: K:\019869-000\Cad\Plan\19869-000-C-DEMO-PLAN.dgn



LEGEND

- T-BUR - BURIED FIBER OPTIC LINE
- P-BUR - BURIED POWER LINE
- SIG-BUR - BURIED SIGNAL LINE
- T-BUR - BURIED TELEPHONE LINE
- TV-BUR - BURIED TELEVISION LINE
- OHP - OVERHEAD POWER LINE
- OHU - OVERHEAD UTILITY LINE
- S - SANITARY SEWER
- SS - STORM SEWER
- G - UNDERGROUND GAS MAIN / SERVICE
- U - UTILITY IN CONDUIT
- W - WATER MAIN
- C - CULVERT
- [Symbol] - CABINET
- [Symbol] - CATCH BASIN
- [Symbol] - HANDHOLE
- [Symbol] - HYDRANT
- [Symbol] - LIGHT POLE
- [Symbol] - MANHOLE
- [Symbol] - PIPE APRON
- [Symbol] - POWER / UTILITY POLE
- [Symbol] - SIGN STRUCTURE
- [Symbol] - SIGNAL POLE
- [Symbol] - UTILITY PEDESTAL
- [Symbol] - VALVE
- [Symbol] - VEGETATION
- [Symbol] - FENCE
- [Symbol] - REMOVE BITUMINOUS PAVEMENT
- [Symbol] - REMOVE BITUMINOUS WALK
- [Symbol] - REMOVE CONCRETE WALK
- [Symbol] - MILL BITUMINOUS SURFACE (1.5")
- [Symbol] - REMOVE CONCRETE CURB & GUTTER
- - - GRADING LIMITS (APPROX.)
- (A) - SAWING BITUMINOUS PAVEMENT (FULL DEPTH)
- (B) - REMOVE HANDHOLE
- (D) - SALVAGE CASTING ASSEMBLY
- (C) - REMOVE LIGHTING UNIT, REMOVE LIGHT FOUNDATION

- ### GENERAL NOTES
1. REMOVAL OF AGGREGATE BASE AND SURFACING SHALL BE INCLUDED IN EXCAVATION-COMMON.
 2. ALL REMOVAL ITEMS SHALL BE DISPOSED OFF THE PROJECT SITE.
 3. DRIVEWAY REMOVALS ARE SHOWN TO THE RIGHT OF WAY FOR ILLUSTRATIVE PURPOSES ONLY. ACTUAL EXTENT OF DRIVEWAY REMOVAL WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
 4. EXISTING PAVEMENT DEPTH VARIES BETWEEN 5" AND 6".
 5. THE EXISTING SUBSURFACE UTILITY INFORMATION IS QUALITY LEVEL D IN ACCORDANCE WITH THE GUIDELINES OF C/ASCE 38-02.
 6. UTILITIES ARE SHOWN AT APPROXIMATE LOCATIONS. THE CONTRACTOR SHALL DETERMINE THE ACTUAL LOCATION OF ALL BURIED UTILITIES IN THE FIELD.
 7. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE RELOCATIONS AND LOCATES WITH THE UTILITY COMPANIES. CALL GOPHER STATE ONE CALL AT LEAST 48 HOURS PRIOR TO EXCAVATION OR CONSTRUCTION.
 8. SAWING OF CONCRETE CURB & GUTTER, CONCRETE WALK, BITUMINOUS WALK SHALL BE INCIDENTAL.



wsb

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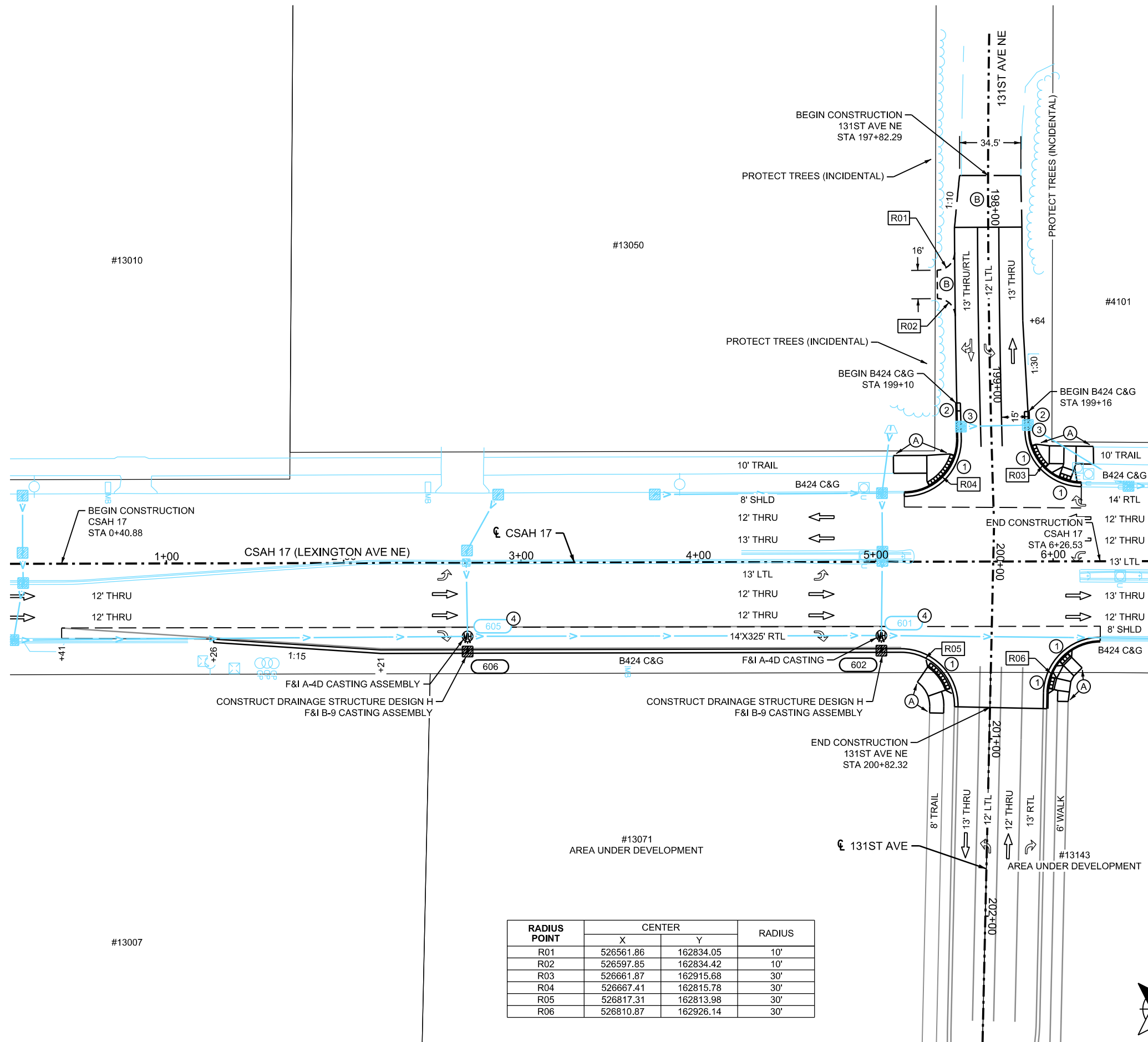
INPLACE TOPOGRAPHY & REMOVALS

SHEET 29 OF 53 SHEETS

CSAH 17

PLOTTED/REVISED: 7/29/2022 12:24:41 PM

PATH & FILENAME: K:\1019869-000\Cad\Plan\19869-000-C-CONS-PLAN-01.dgn



RADIUS POINT	CENTER		RADIUS
	X	Y	
R01	526561.86	162834.05	10'
R02	526597.85	162834.42	10'
R03	526661.87	162915.68	30'
R04	526667.41	162815.78	30'
R05	526817.31	162813.98	30'
R06	526810.87	162926.14	30'

LEGEND

➔ TRAFFIC DIRECTION

- ① CONSTRUCT CONCRETE PEDESTRIAN RAMP WITH TRUNCATED DOMES. SEE PEDESTRIAN RAMP DETAILS.
- ② CURB TRANSITION, SEE MISCELLANEOUS DETAILS
- ③ INSTALL CASTING
- ④ CONNECT INTO EXISTING DRAINAGE STRUCTURE

Ⓐ 6" CONCRETE WALK
Ⓑ 6" AGGREGATE SURFACING CLASS 2

RXX EXISTING DRAINAGE STRUCTURE NUMBER OR EDGE OF AGGREGATE
XXX PROP. DRAINAGE STRUCTURE NUMBER

XXX EXISTING STORM SEWER PIPE
XXX PROPOSED STORM SEWER PIPE

➔ EXISTING MANHOLE / CATCH BASIN
➔ PROPOSED MANHOLE / CATCH BASIN

Ⓜ EXISTING MANHOLE / CATCH BASIN
Ⓜ PROPOSED MANHOLE / CATCH BASIN

GENERAL NOTES

1. ALL DIMENSIONS ARE TO FACE OF CURB OR EDGE OF BITUMINOUS UNLESS OTHERWISE NOTED.
2. SEE ALIGNMENT PLAN FOR CURVE DATA.

VERTICAL CONTROL

ELEVATIONS FOR THIS PLAN ARE BASED ON NAVD 88 DATUM.

wsb

WSB PROJECT NO.:
019869-000

SCALE: AS SHOWN DESIGN BY: AJF
PLAN BY: AJF CHECK BY: NEH

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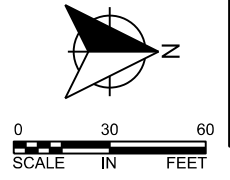
NICHOLAS E. HENTGES, PE
DATE: 7/29/2022 LIC. NO.: 44620

CITY OF BLAINE, MN

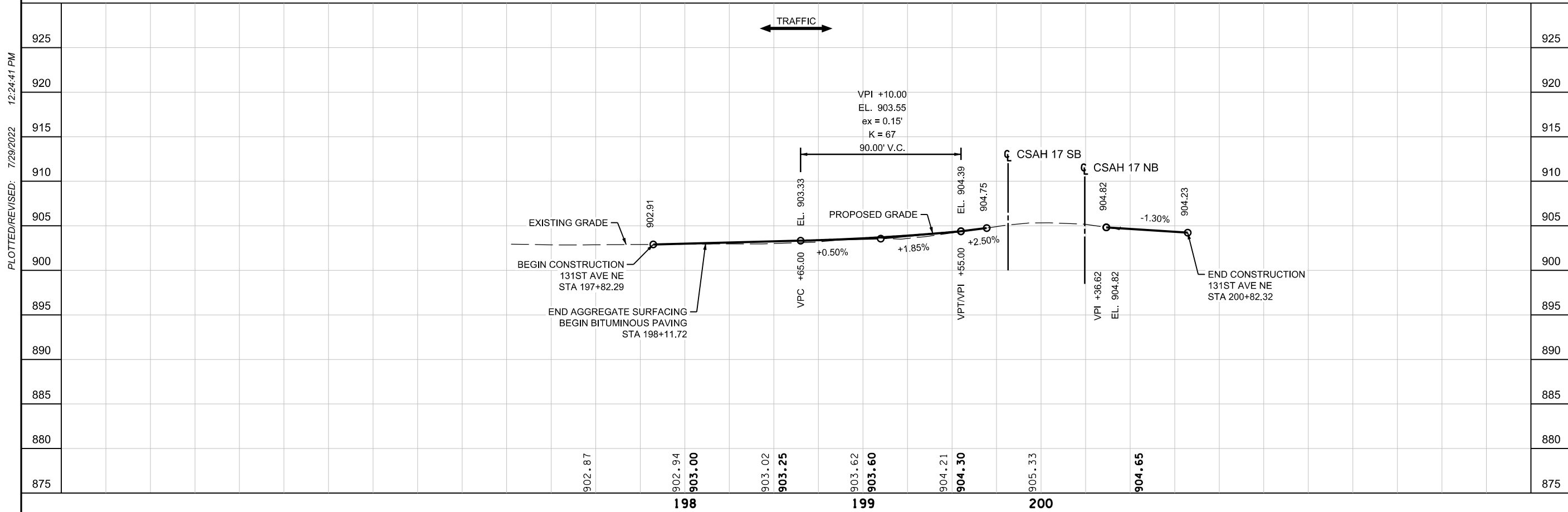
**LEXINGTON AVENUE NE AT
131ST AVENUE NE
INTERSECTION IMPROVEMENTS**

STREET & DRAINAGE PLAN

SHEET
30
OF
53
SHEETS



131ST AVENUE NE PROFILE



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 WSB PROJECT NO.: 019869-000

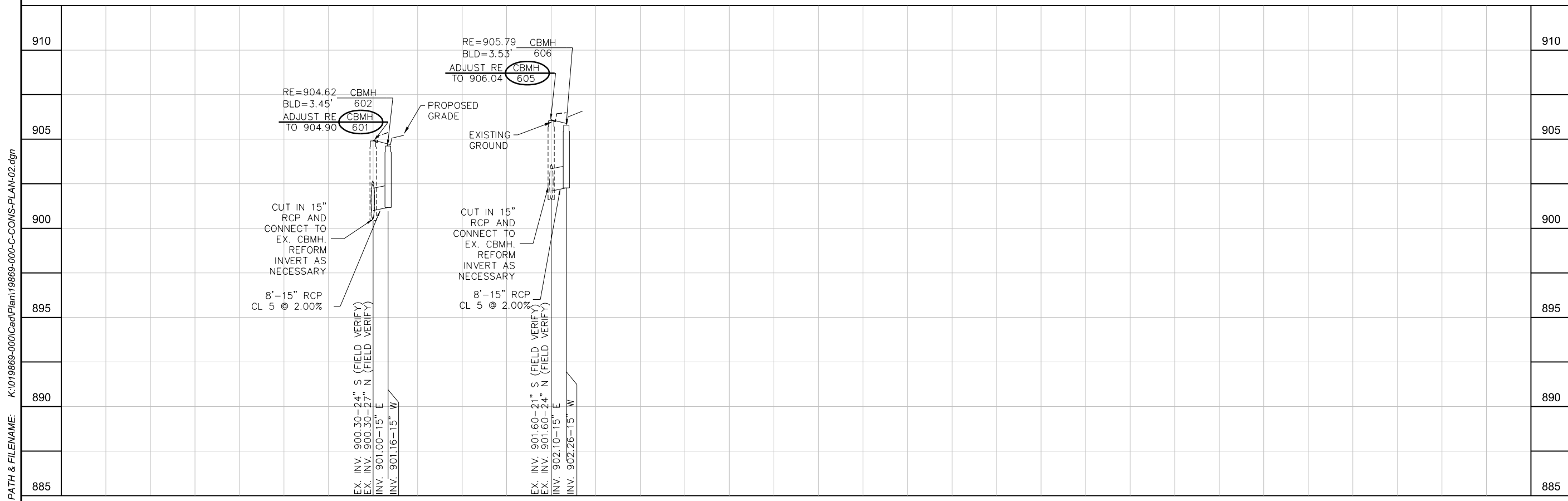
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DATE: 7/29/2022 LIC. NO.:

STORM SEWER PROFILES



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CITY OF BLAINE, MN
LEXINGTON AVENUE NE AT
131ST AVENUE NE
INTERSECTION IMPROVEMENTS

STREET & DRAINAGE PLAN

CSAH 17 at 131st Avenue NE



WSB PROJECT NO.:
019869-000

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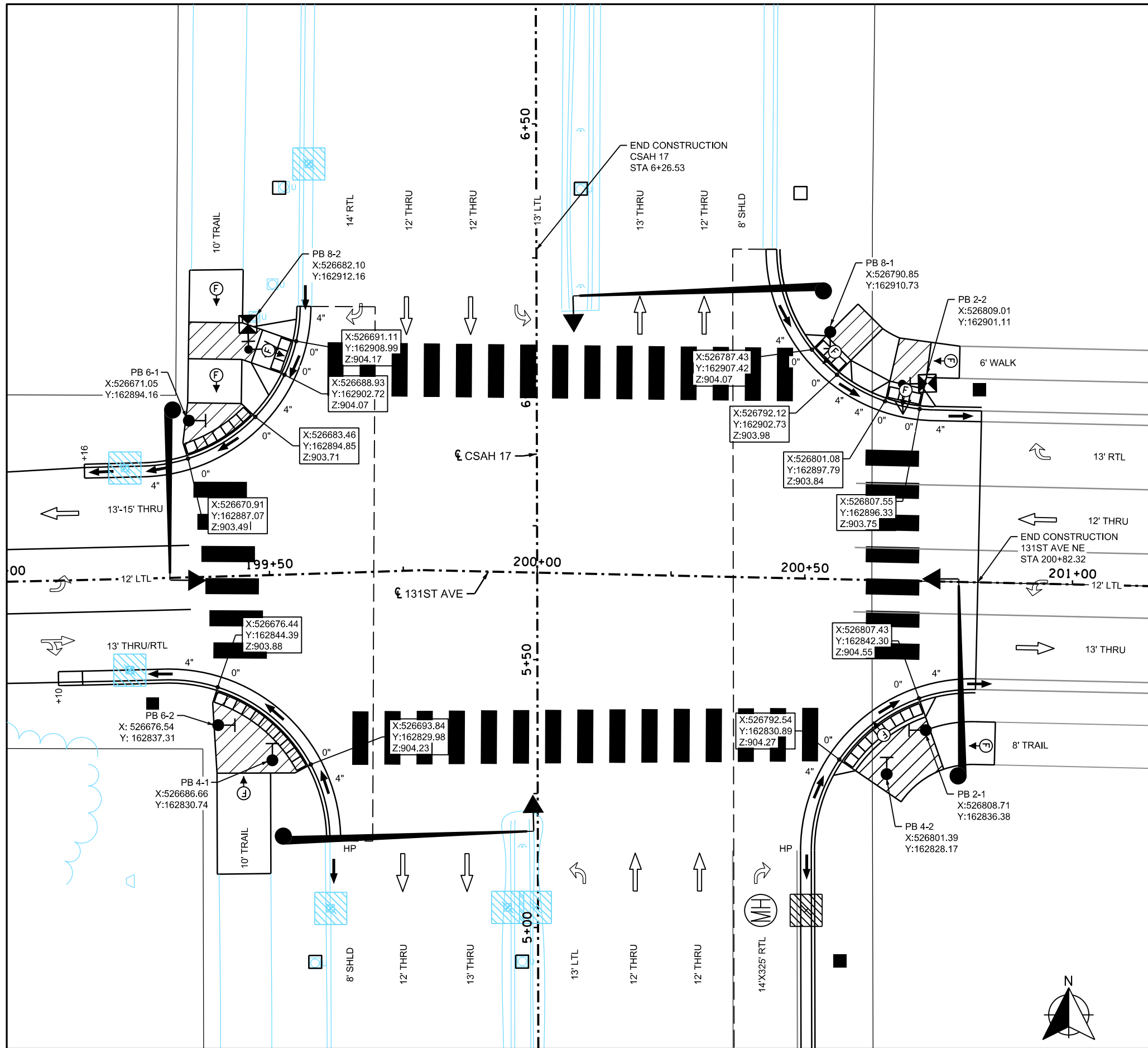
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LEGEND

- PEDESTRIAN PUSH BUTTON STATION
- LOCALIZED HIGH / LOW POINT
- CONTROL POINTS AT GUTTER FLOW LINE
- TRUNCATED DOMES (SEE STANDARD PLATE 7038)
- CATCH BASIN
- CURB HEIGHT
- LANDING AREA - 4' X 4' MIN. DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS.
- INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%.
- INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE GREATER THAN 2.0% AND LESS THAN 5.0% IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%.
- DRAINAGE FLOW ARROW

GENERAL NOTES

- MAINTAIN A MINIMUM 4' WIDE PEDESTRIAN ACCESS ROUTE OBSTRUCTION TO OBSTRUCTION AND/OR OBSTRUCTION TO FAR EDGE OF WALK.
- THE CROSS SLOPE OF THE PEDESTRIAN ACCESS ROUTE SHALL NOT EXCEED 0.020 FT/FT

CITY OF BLAINE, MN LEXINGTON AVENUE NE AT 131ST AVENUE NE INTERSECTION IMPROVEMENTS

STREET & DRAINAGE PLAN

CSAH 17



WSB PROJECT NO.:
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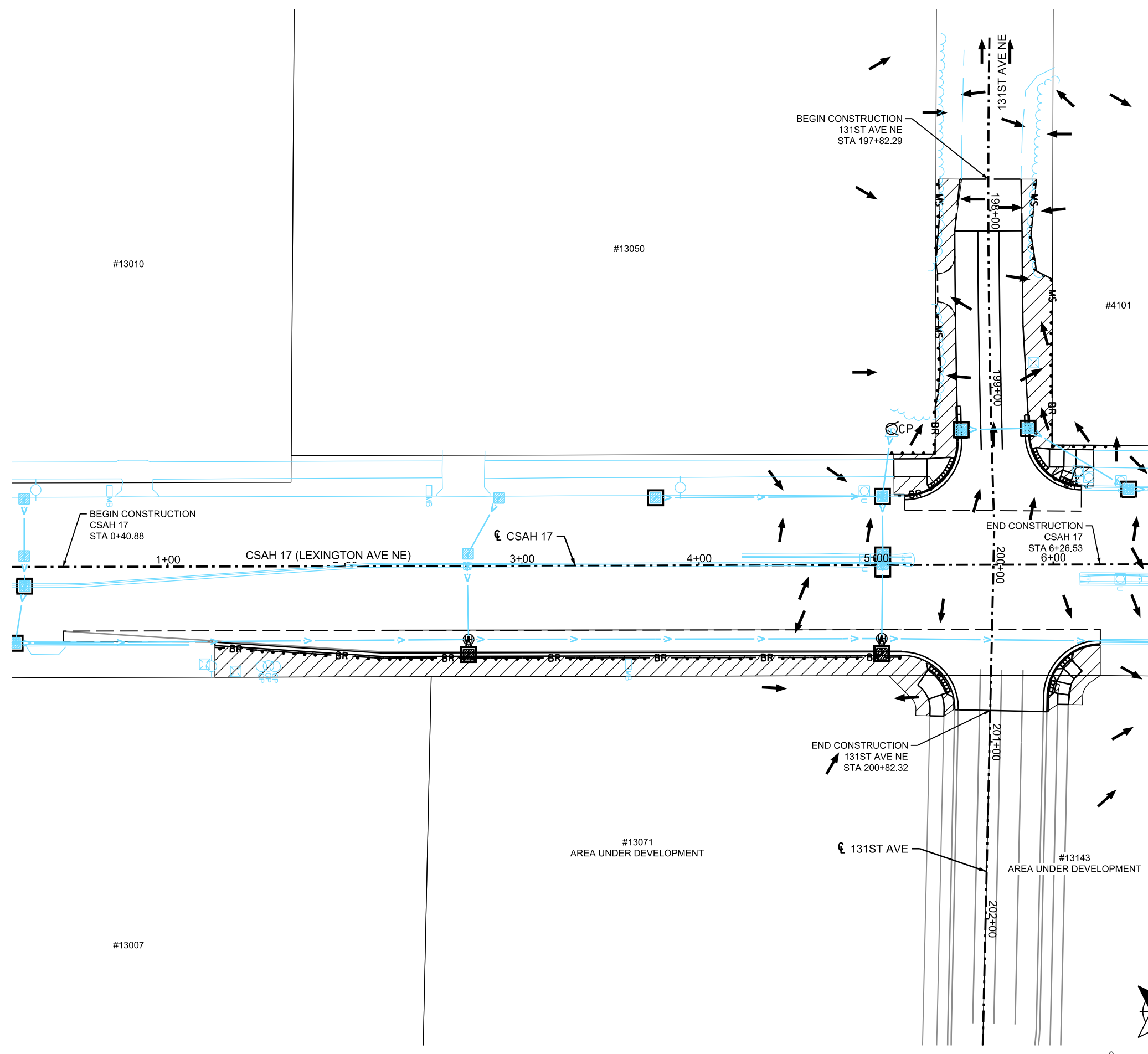
CITY OF BLAINE, MN LEXINGTON AVENUE NE AT 131ST AVENUE NE INTERSECTION IMPROVEMENTS

TURF ESTABLISHMENT & EROSION CONTROL

SHEET
33
OF
53
SHEETS

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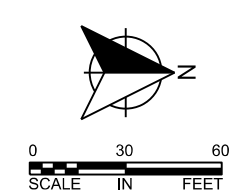
LEGEND

TEMPORARY:
RAPID STABILIZATION METHOD 3

PERMANENT:
ROLLED EROSION PREVENTION CATEGORY 20
SEED MIX 25-131 (220 LBS/ACRE)
FERTILIZER TYPE 3 (350 LBS/ACRE)

→ SURFACE FLOW DIRECTION
□ INLET PROTECTION
BR SEDIMENT CONTROL LOG TYPE COMPOST
MS SILT FENCE, TYPE MS
--- CONSTRUCTION LIMITS

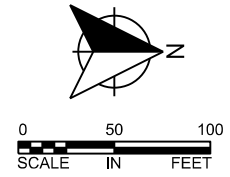
- ### GENERAL NOTES
- SOILS SHALL RECEIVE TEMPORARY OR PERMANENT STABILIZATION MEASURES IMMEDIATELY AND WITHIN 7 DAYS OF INACTIVITY.
 - THE CONTRACTOR SHALL AMEND THE EROSION CONTROL PLAN SHEETS TO SHOW LOCATIONS INCLUDING BUT NOT LIMITED TO: STAGING AND MATERIAL STORAGE AREAS, STOCKPILE LOCATIONS, AND LOCATIONS OF POTENTIAL POLLUTANT GENERATING ACTIVITIES (I.E. FUELING LOCATIONS, DESIGNATED CONCRETE WASHOUT AREAS, ETC.)
 - ALL DISTURBED AREAS GENERATED BY CONTRACTOR ACTIVITIES SHALL BE RESTORED WITH THE ROLLED EROSION PREVENTION, SEED MIX, AND FERTILIZER IDENTIFIED IN THE LEGEND.



#13071
AREA UNDER DEVELOPMENT

#13143
AREA UNDER DEVELOPMENT

CSAH 17



WSB PROJECT NO.:
019869-000

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SEAN DELMORE, PE
DATE: 7/29/2022 LIC. NO.: 40945

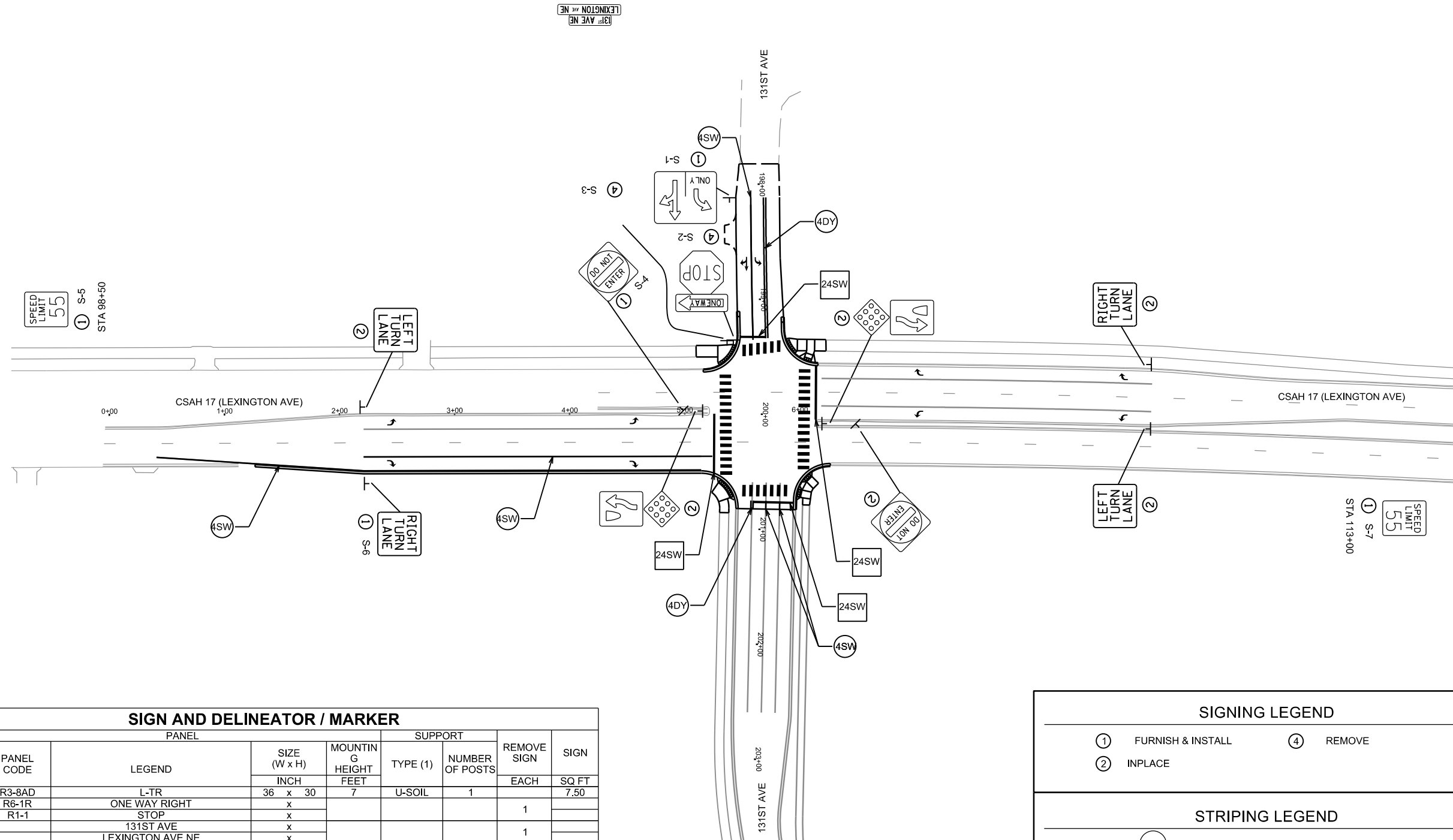
CITY OF BLAINE, MN LEXINGTON AVENUE NE AT 131ST AVENUE NE INTERSECTION IMPROVEMENTS

SIGNING & STRIPING

SHEET
34
OF
53
SHEETS

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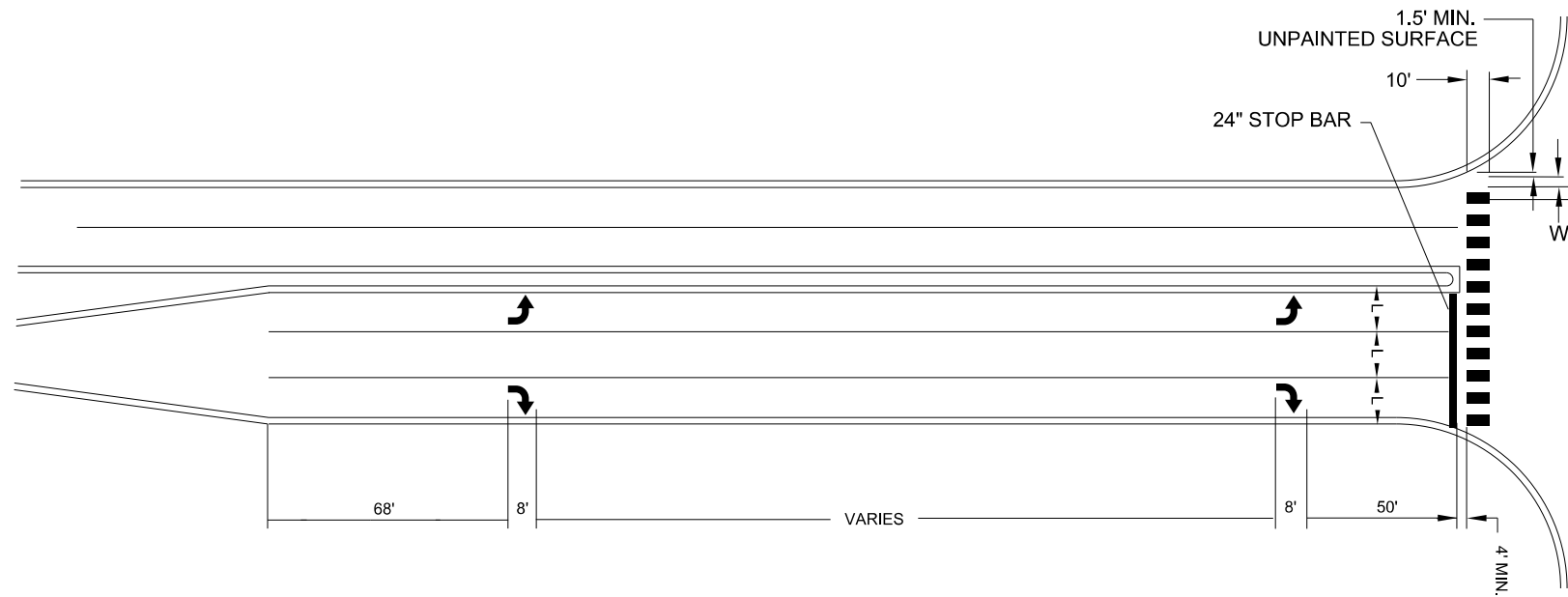
SIGN NUMBER	PANEL CODE	PANEL			SUPPORT		REMOVE SIGN EACH	SIGN SQ FT
		LEGEND	SIZE (W x H)	MOUNTING HEIGHT	TYPE (1)	NUMBER OF POSTS		
			INCH	FEET				
S-1	R3-8AD	L-TR	36 x 30	7	U-SOIL	1	7.50	
S-2	R6-1R	ONE WAY RIGHT	x				1	
	R1-1	STOP	x					
S-3		131ST AVE	x				1	
		LEXINGTON AVE NE	x					
S-4	R5-1	DO NOT ENTER	30 x 30	7	U-CONC	1	6.25	
S-5	R2-1	SPEED LIMIT 55	24 x 30	7	U-SOIL	1	5.00	
S-6	R3-7R (MOD)	RIGHT TURN LANE	30 x 30	7	U-SOIL	1	6.25	
S-7	R2-1	SPEED LIMIT 55	24 x 30	7	U-SOIL	1	5.00	
TOTAL:							2	30

SPECIFIC NOTE(S):
(1) U-CHANNEL 3# PER FOOT BLACK POST

SIGNING LEGEND	
① FURNISH & INSTALL	④ REMOVE
② INPLACE	

STRIPING LEGEND	
1ST DIGIT WIDTH 4", 6", 8", 24"	CIRCLE - MULTI COMP
2ND DIGIT PATTERN S = SOLID B = BROKEN D = DOUBLE T = DOTTED	SQUARE - PREF THERMO
3RD DIGIT COLOR W = WHITE Y = YELLOW B = BLACK	ARROWS - PREF THERMO
	CROSSWALK (3'X10' BLOCKS) - PREF THERMO

MARKINGS FOR PEDESTRIAN CROSSWALKS



(L)	(W)	(S)
WIDTH OF INSIDE LANE	WIDTH OF PAINTED AREAS	WIDTH OF SPACE
9'	2.0'	2.5'
10'	2.5'	2.5'
11'	2.5'	3.0'
12'	3.0'	3.0'
13'	3.0'	3.5'

NOTES: CROSSWALKS:

- 1.) PAINTED AREAS ARE TO BE CENTERED ON CENTER AND LANE LINES, EVEN IF INTERSECTION IS NOT ALIGNED.
- 2.) LOCATION OF ZEBRA CROSSWALKS AND STOP BARS, SIGNAL LOOPS AND PED RAMPS ARE APPROXIMATE. FINAL LOCATIONS ARE TO BE DETERMINED AND FIELD VERIFIED DURING CONSTRUCTION BY THE FIELD ENGR.
- 3.) ZEBRA CROSSWALKS ARE TO BE PARALLEL TO THE DRIVING LANE OR LANES, EVEN IF THE STREET IS ON AN ANGLE TO THE INTERSECTION.
- 4.) A MIN. OF 1.5' (450mm) CLEAR DISTANCE MUST BE LEFT ADJACENT TO THE CURB. IF LAST PAINTED AREA FALLS INTO THIS AREA, IT MUST BE OMITTED.
- 5.) ON TWO LANE STREETS, USE SPACING SHOWN FOR AN 11' (3.3mm) INSIDE LANE.

REVISIONS	
NO.	DESCRIPTION

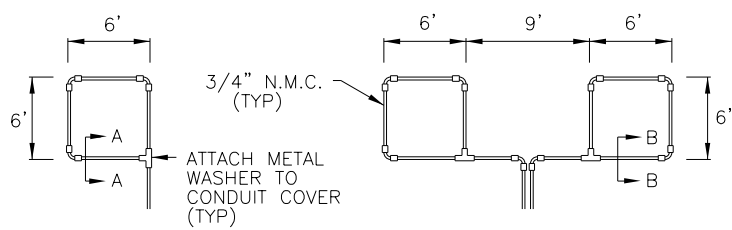
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SEAN DELMORE, PE
DATE: 7/29/2022 LIC. NO.: 40945

CITY OF BLAINE, MN
LEXINGTON AVENUE NE AT
131ST AVENUE NE
INTERSECTION IMPROVEMENTS

SIGNING & STRIPING

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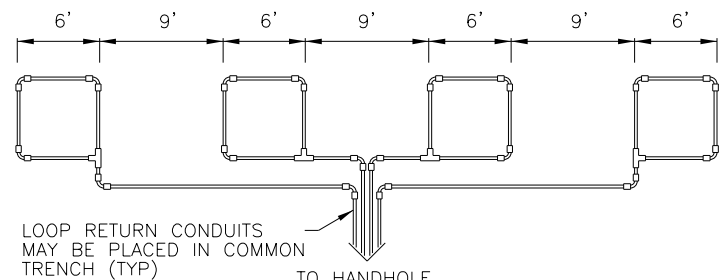


**LOOP DETECTOR
DETAIL 'A'**
(LOOP PHASING FOR
SINGLE CONNECTION)

LOOP CONNECTIONS SHALL BE
LABELED AND SPLICED IN THE
HANDHOLE AS FOLLOWS:

- L1 TO 1A
- 1B TO 2A
- 2B TO L2

**LOOP DETECTOR
DETAIL 'B'**
(LOOP PHASING FOR
SERIES CONNECTION)

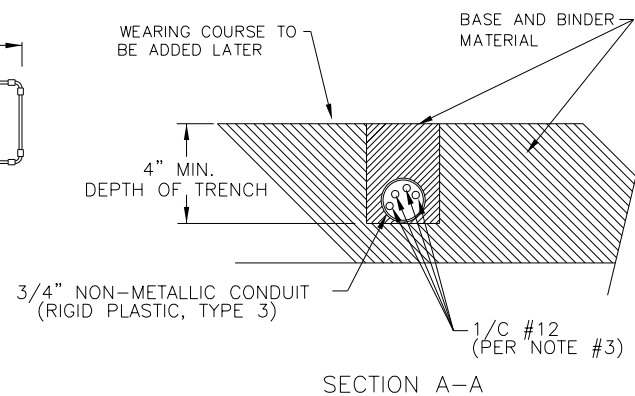


LOOP CONNECTIONS SHALL BE LABELED AND SPLICED
IN THE HANDHOLE AS FOLLOWS:

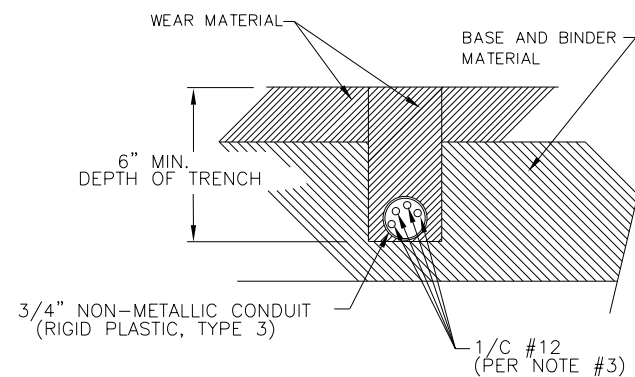
- L1 TO 1A 3B TO 4A
- 1B TO 2A 4B TO L2
- 2B TO 3A

SPLICE CONTROL CABLE TO L1 & L2 IN HANDHOLE.
ALL CONDUCTORS SHALL BE TAGGED IN HANDHOLE
(1A, 1B, ECT)

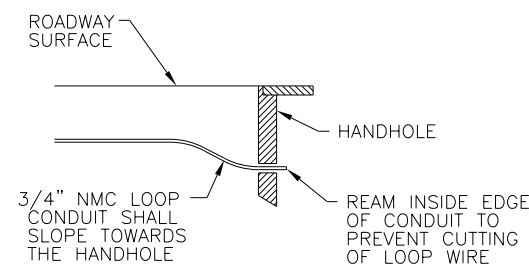
**LOOP DETECTOR
DETAIL 'C'**
(LOOP PHASING FOR
SERIES CONNECTION)



SECTION A-A
DETAIL FOR LOOP INSTALLATION
IN NEW ROADWAY



SECTION B-B
DETAIL FOR LOOP INSTALLATION
IN EXISTING ROADWAY



DRAINAGE DETAIL

LOOP DETECTOR WIRING

- 1) ALL CORNERS SHALL BE 90° CONDUIT BENDS.
- 2) CONNECT WIRES IN HANDHOLES USING SPLICE KIT METHOD DESCRIBED IN THE SPECIAL PROVISIONS.
- 3) LOOP DETECTOR WIRES SHALL BE #12 AWG CROSSED LINKED POLYETHYLENE (XLP). SEE SPECIAL PROVISIONS.
- 4) LOOP LEAD IN WIRES SHALL BE TWISTED A MIN. OF (5) TURNS PER FOOT THROUGH THE CONDUIT TO THE HANDHOLE.
- 5) NMC DESIGNATES NON-METALLIC CONDUIT (SPEC. 3803)
- 6) LOOPS 6' x 6' THRU 6' x 14' SHALL HAVE (4) TURNS.
- 7) LOOPS 6' x 15' AND LARGER SHALL HAVE (2) TURNS.

NO.	DATE	DESCRIPTION

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SEAN DELMORE, PE
DATE: 10/27/2022 LIC. NO.: 40845

LEGEND OF SYMBOLS

CONTROLLER AND SERVICE EQUIP. NO's	(A)
SIGNAL BASE NO.	(B)
SIGNAL FACE NO.	(C)
LUMINAIRE NO.	(D)
CONTROLLER AND CABINET	(E)
CONTROLLER AND CABINET - IN PLACE	(F)
HANDHOLE	(G)
HANDHOLE - IN PLACE	(H)
RIGID STEEL CONDUIT (RSC)	(I)
RIGID STEEL CONDUIT (RSC) - IN PLACE	(J)
SIGNAL FACE WITH BACKGROUND SHIELD	(K)
SIGNAL FACE W/O BACKGROUND SHIELD	(L)
SIGNAL FACE - IN PLACE	(M)
PEDESTRIAN INDICATORS	(N)
PEDESTRIAN INDICATORS - IN PLACE	(O)
PEDESTRIAN PUSH BUTTONS ON PEDESTAL OR POLE	(P)
PEDESTRIAN PUSH BUTTON STATION	(Q)
TRAFFIC SIGNAL PEDESTAL	(R)
TRAFFIC SIGNAL PEDESTAL - INPLACE	(S)
TRAFFIC SIGNAL POLE AND MAST ARM	(T)
TRAFFIC SIGNAL POLE AND MAST ARM - IN PLACE	(U)
STREET LIGHT POLE AND LUMINAIRE	(V)
STREET LIGHT POLE AND LUMINAIRE - IN PLACE	(W)
MAST ARM AND LUMINAIRE	(X)
MAST ARM AND LUMINAIRE - INPLACE	(Y)
WOOD POLE	(Z)
WOOD POLE - IN PLACE	(AA)
SOURCE OF POWER	(AB)
RAILROAD SIGNAL - IN PLACE	(AC)
RIGHT OF WAY LINE	(AD)
CENTERLINE	(AE)
EDGE OF ROADWAY	(AF)
SHOULDERLINE	(AG)
CURB LINE	(AH)
STOP BAR	(AI)
EMERGENCY VEHICLE PREEMPTION DETECTOR	(AJ)

ABBREVIATIONS

3-1(EG)	SIGNAL HEAD PHASE "3" - NO "1"	P2-1(EG)	PED INDICATION PHASE "2" - NO. "1"
BR. GR.	BARE GROUND	PB	PUSH BUTTON
CH. SW.	CHECK SWITCH	PB2-1(EG)	PUSH BUTTON PHASE "2" - NO. "1"
CLR	CLEAR	PEC	PHOTOELECTRIC CELL
D2-1(EG)	DETECTOR PHASE "2" - NO. "1"	PED	PEDESTRIAN
DWK	DON'T WALK	R	RED
EQG	EQUIPMENT GROUND	R&S	REMOVE AND SALVAGE
EVP	EMERGENCY VEHICLE PRE-EMPTION	RLTA	RED LEFT TURN ARROW
F&I	FURNISH AND INSTALL	RRTA	RED RIGHT TURN ARROW
FL	FLASH/FLASHING	RSC	RIGID STEEL CONDUIT
G	GREEN	SOP	SOURCE OF POWER
GLTA	GREEN LEFT TURN ARROW	SPR	SPARE
GRN	GREEN	ST. LHT	STREET LIGHT
GR. R	GROUND ROD	STA	STATION
GRTA	GREEN RIGHT TURN ARROW	SW	SWITCH
GTHA	GREEN THRU ARROW	SWD	SWITCHED
HH	HANDHOLE	S&R	SALVAGE AND REINSTALL
HPS	HIGH PRESSURE SODIUM	TDW	TELEPHONE DROP WIRE
JB	JUNCTION BOX	WLK	WALK
LUM	LUMINAIRE	YEL	YELLOW
NEU	NEUTRAL	YLTA	YELLOW LEFT TURN ARROW
NMC	NONMETALLIC CONDUIT	YRTA	YELLOW RIGHT TURN ARROW
		YTHA	YELLOW THRU ARROW

CONDUCTOR COLOR CODE

R	RED
O	ORANGE
BL	BLUE
WH	WHITE
R/BLK	RED WITH BLACK TRACER
O/BLK	ORANGE WITH BLACK TRACER
BL/BLK	BLUE WITH BLACK TRACER
WH/BLK	WHITE WITH BLACK TRACER
BLK	BLACK
BLK/WH	BLACK WITH WHITE TRACER
G/BLK	GREEN WITH BLACK TRACER
G	GREEN

STANDARD PLATES - SIGNAL SYSTEMS

THE FOLLOWING STANDARD PLATES, APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION, SHALL APPLY ON THIS PROJECT

PLATE NO.	DESCRIPTION	PLATE NO.	DESCRIPTION
7038	A DETECTABLE WARNING SURFACE TRUNCATED DOMES	8123	G POLE AND MAST ARM
7113	A CONCRETE APPROACH NOSE DETAIL	8126	L POLE FOUNDATION (PA90 AND PA100)
8111	E TRAFFIC SIGNAL BRACKETING (PEDESTAL MOUNTED)	8127	E LIGHTING FOUNDATION E (PEDESTAL)
8117	G PRECAST CONCRETE HAND HOLE	8129	A SHIM AND WASHER
8118	D SERVICE EQUIPMENT AND POLE	8130	E SAW CUT LOOP DETECTORS
8119	C GROUND MOUNTED CABINET FOUNDATION	8132	B PREFORMED RIGID PVC CONDUIT LOOP DETECTOR
8120	O POLE FOUNDATION (PA-85)		
8121	H TRANSFORMER BASE AND POLE BASE PLATE		

STANDARD PLATES APPLICABLE TO THIS PROJECT

CITY OF BLAINE, MN
LEXINGTON AVENUE NE AT
131ST AVENUE NE
INTERSECTION IMPROVEMENTS

**TRAFFIC CONTROL
SIGNAL
SYSTEM**

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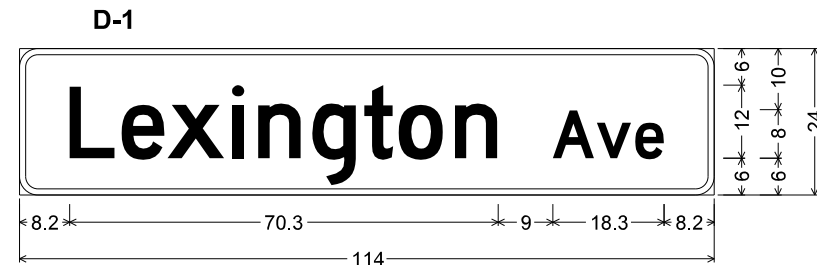
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SIGN DETAILS

SIGN PANELS ON SIGNALS						
	"A" DISTANCE (FEET) OR POLE	PANEL				
		QTY	CODE NUMBER	LEGEND	SIZE (INCHES)	AREA (SQ FT)
1	18	1	D-1	LEXINGTON AVE	114 x 24	19.00
1	0	1	R10-X12	LEFT TURN YIELD ON FLASHING YELLOW ARROW	42 x 48	14.00
3	21	1	D-2	131ST AVE	78 x 24	13.00
3	0	1	R10-X12	LEFT TURN YIELD ON FLASHING YELLOW ARROW	42 x 48	14.00
5	18	1	D-1	LEXINGTON AVE	114 x 24	19.00
5	0	1	R10-X12	LEFT TURN YIELD ON FLASHING YELLOW ARROW	42 x 48	14.00
6	32	1	D-2	131ST AVE	78 x 24	13.00
6	0	1	R10-X12	LEFT TURN YIELD ON FLASHING YELLOW ARROW	42 x 48	14.00

GENERAL NOTES:

1. SEE THE CURRENT MNDOT STANDARD SIGNS AND MARKINGS MANUAL FOR STANDARD SIGN DESIGNS, ARROW DETAILS AND SPLICE PLATE DETAILS.
2. FOR NON STANDARD SIGN DESIGNS, LAYOUTS ARE INCLUDED. SIGN PANEL DIMENSIONS ARE IN INCHES.
3. SEE STANDARD PLAN 5-297.731 FOR SIGN MOUNTING TO MAST ARM.
4. SEE STANDARD PLAN 5-297.730 FOR SIGN MOUNTING TO ROUND POST.
5. MOUNTING HEIGHT OF POLE MOUNTED SIGN PANELS MUST BE 7 FOOT MINIMUM. MOUNTING HEIGHT IS MEASURED FROM BOTTOM OF SIGN PANEL TO SURFACE IMMEDIATELY BELOW THE SIGN PANEL.
6. "A" DISTANCE = DISTANCE FROM THE END OF THE MAST ARM TO THE EDGE OF EACH SIGN PANEL.
7. SEE INTERSECTION LAYOUT FOR SIGN PLACEMENT.



3.0" Radius, 1.0" Border, White on, Green;
"Lexington Ave", D 2K;



3.0" Radius, 1.0" Border, White on, Green;
"131st Ave", D 2K;

SCALE: AS SHOWN DESIGN BY:
PLAN BY: CHECK BY:

REVISIONS	
NO.	DATE
	DESCRIPTION

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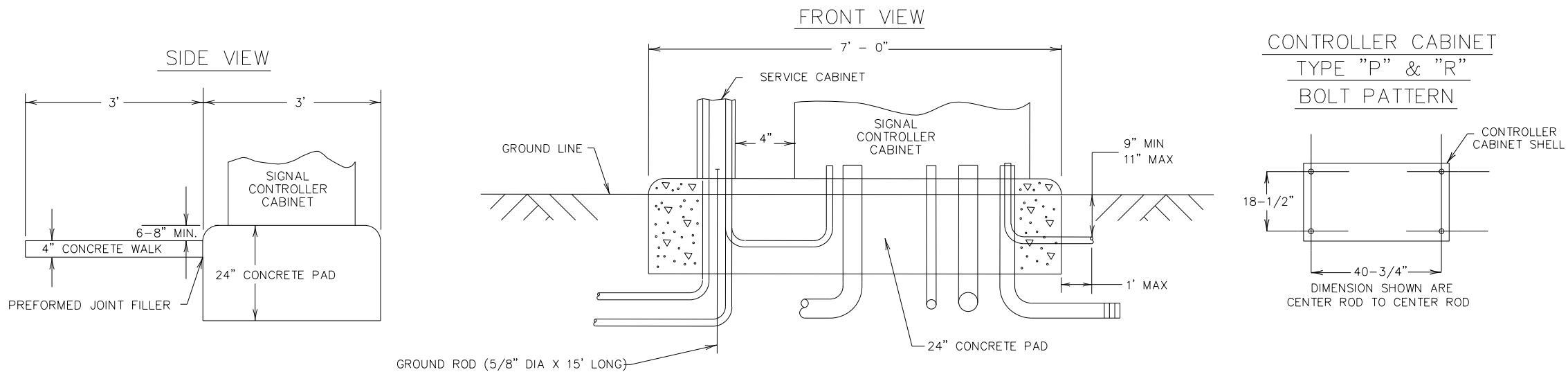
Sean Belmore
SEAN BELMORE, PE
DATE: 10/27/2022 LIC. NO.: 40845

CITY OF BLAINE, MN
LEXINGTON AVENUE NE AT
131ST AVENUE NE
INTERSECTION IMPROVEMENTS

TRAFFIC CONTROL SIGNAL SYSTEM

TYPICAL PAD WITH CONTROLLER CABINET AND SERVICE CABINET

SEE INTERSECTION LAYOUT FOR CABLE INFORMATION (NOT TO SCALE)



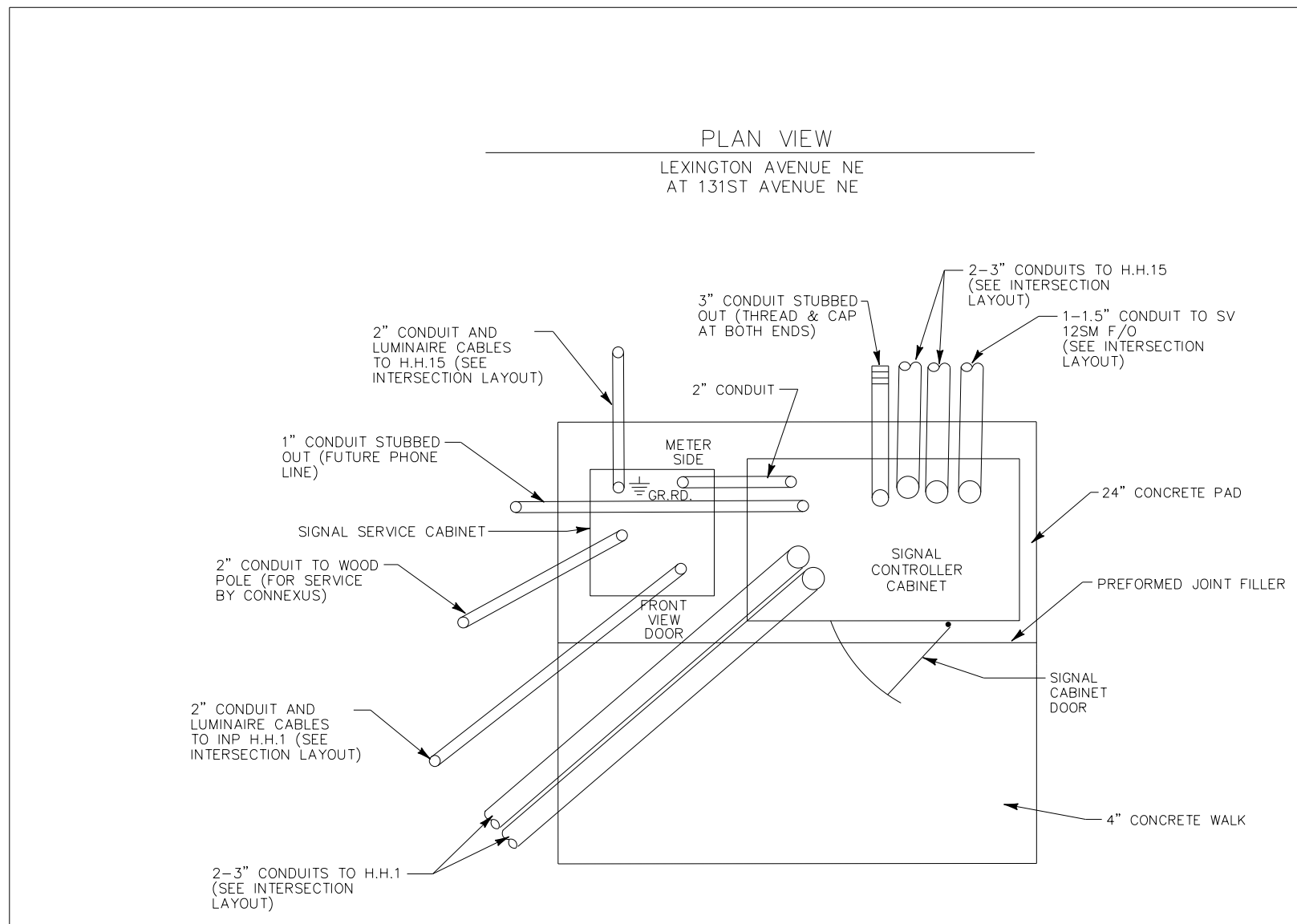
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Sean Belmore
SEAN BELMORE, PE
DATE: 10/27/2022 LIC. NO.: 40845

NOTES:

1. THE ANCHOR RODS, NUTS AND WASHERS FOR THE COUNTY FURNISHED CONTROLLER AND CABINET SHALL BE FURNISHED BY THE COUNTY AND INSTALLED BY THE CONTRACTOR.
2. THE UPPER PART OF THE NEW EQUIPMENT PAD SHALL BE BEVELLED OR CHAMFERED IN A NEAT MANNER AS DIRECTED BY THE ENGINEER.
3. THE TOP OF THE CONDUITS SHALL BE THREADED AND CAPPED AFTER INSTALLATION (UNTIL CABLES ARE INSTALLED).
4. CONDUIT SHALL PROJECT A MINIMUM OF 2" ABOVE CONCRETE AND SHALL BE LOCATED INSIDE OF THE CABINET WHERE DIRECTED BY THE ENGINEER, BUT SHALL NOT INTERFERE WITH THE CABINET FUNCTIONS (SUPPORTING MEMBERS, ETC.).
5. CONCRETE MIX 3F52 OR EQUAL SHALL BE USED FOR THE EQUIPMENT PAD AND SIDEWALK.
6. CONDUITS WITH BOTH ENDS TERMINATING WITHIN THE PAD SHALL NOT BE INSTALLED BELOW THE CONCRETE.
7. THE EXACT LOCATION OF CONDUITS WITHIN THE PAD SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.
8. ANCHOR RODS SHALL PROJECT A MINIMUM OF 3" ABOVE THE CONCRETE BUT SHALL NOT INTERFERE WITH THE CABINET FUNCTIONS (SUPPORTING MEMBERS, ETC.).
9. CONTRACTOR SHALL PROVIDE MINIMUM 4-INCH CLEARANCE BETWEEN CONTROLLER AND SERVICE CABINETS ON THE EQUIPMENT PAD FOUNDATION AS SHOWN.



CITY OF BLAINE, MN
**LEXINGTON AVENUE NE AT
131ST AVENUE NE
INTERSECTION IMPROVEMENTS**

**TRAFFIC CONTROL
SIGNAL
SYSTEM**

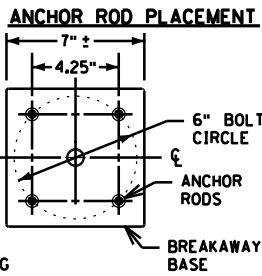
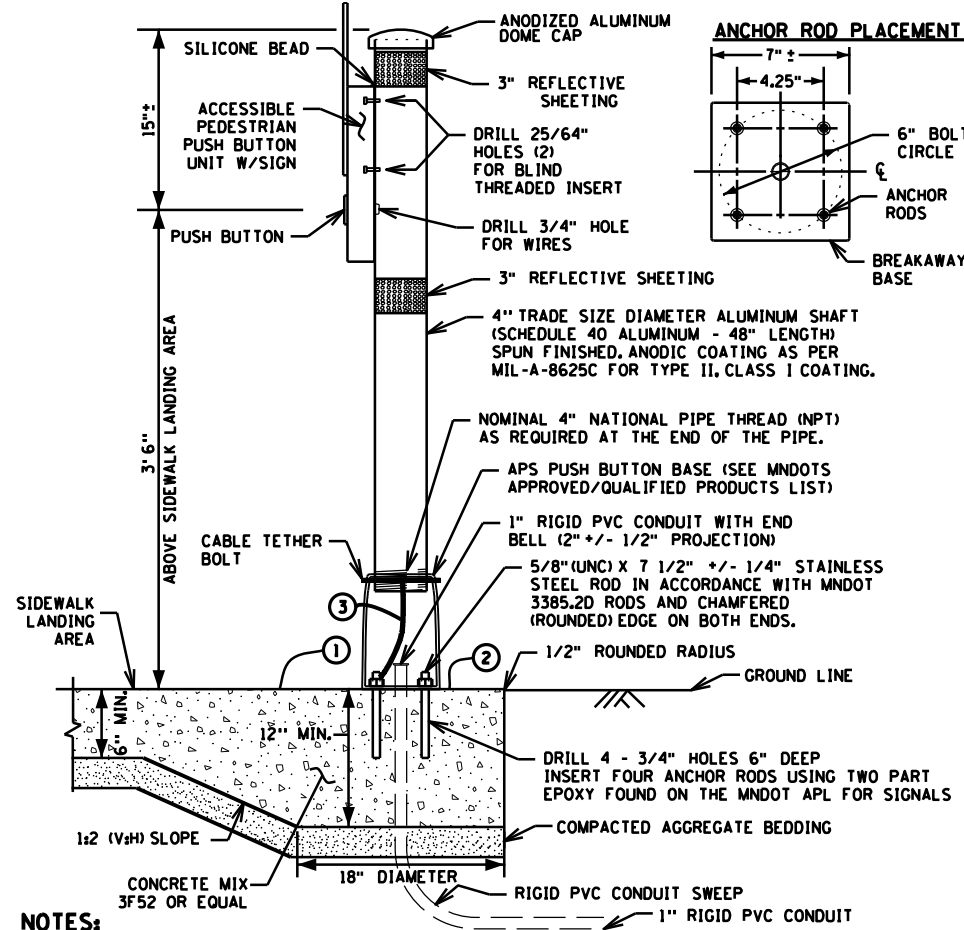
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APS PUSH BUTTON STATION



NOTES:

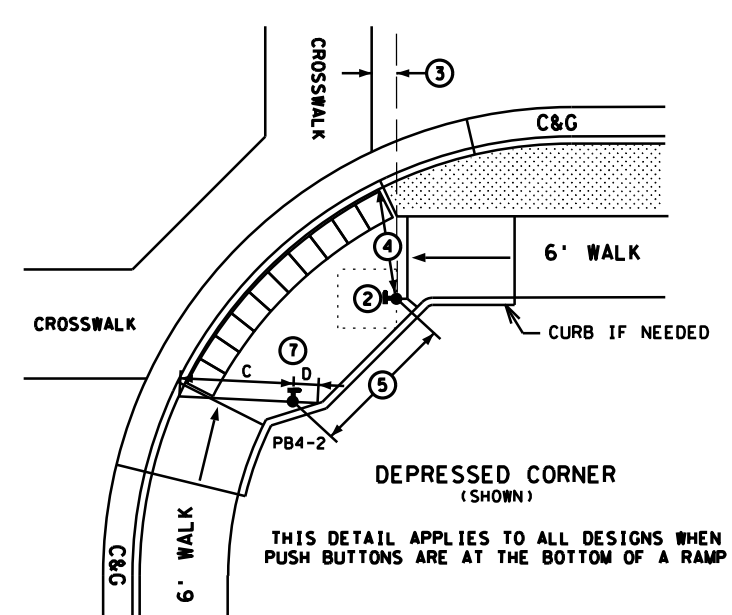
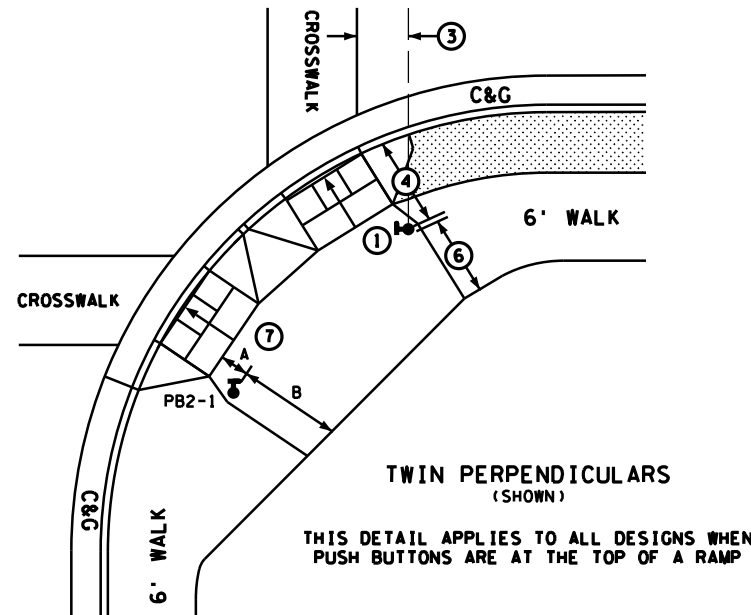
- 1. PLACEMENT AND ORIENTATION OF THE PUSH BUTTON STATION IS CRITICAL. MOUNT THE BUTTON SO THAT THE FACE IS PARALLEL WITH THE ASSOCIATED CROSSWALK. SCREW IN SHAFT TO A TIGHTENED POSITION BEFORE MOUNTING ACCESSIBLE PEDESTRIAN PUSH BUTTON UNIT TO THE SHAFT.
 - 2. ORIENT ACCESS OPENING ON THE BREAKAWAY PEDESTAL DIRECTLY BELOW THE APS BUTTON.
 - 3. PLUMB THE PUSH BUTTON STATION WITH LEVELING SHIMS IN ACCORDANCE WITH STANDARD PLATE 8129.
 - 4. INSTALL BLIND THREADED INSERTS USING MANUFACTURER'S SPECIFIC INSERTION TOOL.
 - 5. USE ZINC PLATED STEEL 1/4 - 20 UNC BLIND THREADED INSERTS SUITABLE FOR MOUNTING ON SURFACE WALL THICKNESS OF .337. APPROVED BLIND INSERTS ARE LISTED ON MNDOT'S APPROVED/QUALITY PRODUCTS LIST WEBSITE FOR TRAFFIC SIGNALS.
 - 6. USE APS 1/4 - 20 STAINLESS STEEL MOUNTING BOLTS. APPLY BRUSH ON ANTI SEIZE COMPOUND TO BOLTS PRIOR TO ASSEMBLY.
 - 7. APPLY A BEAD OF 100% SILICONE SEALANT ALONG THE TOP OF THE PUSH BUTTON UNIT WHERE IT COMES IN CONTACT WITH THE 4" SHAFT.
 - 8. USE WHITE REFLECTIVE SHEETING AT INTERSECTION CORNERS AND YELLOW REFLECTIVE SHEETING IN CENTER MEDIANS. APPROVED TUBE DELINEATOR SHEETING IS LISTED ON MNDOT'S APPROVED/QUALIFIED PRODUCTS LIST WEBSITE FOR SIGNING.
 - 9. AN 18" X 6" FIBER FORMING TUBE MAY BE USED FOR THE LOWER HALF OF THE FOUNDATION WHEN CONDITIONS DO NOT ALLOW FOR THE 18" X 6" HOLE TO STAND OPEN.
1. THE PUSH BUTTON STATION FOUNDATION IS MONOLITHIC (POURED AT ONE TIME) WITH THE SIDEWALK. PROVIDE A 1/2 (V:H) SLOPE GRADE WHERE THE 6" MIN SIDEWALK DEPTH TRANSITIONS TO THE 12" MIN FOUNDATION DEPTH. MAINTAIN THE COMPACTED AGGREGATE BEDDING AND THICKNESS USED FOR THE SIDEWALK THROUGHOUT THE SLOPE AND FOUNDATION GRADING. PROVIDE 1/2 (V:H) SLOPE GRADING 360 DEGREES FOR THE TRANSITION FROM THE SIDEWALK TO THE FOUNDATION WHEN THE FOUNDATION IS NOT LOCATED NEAR EDGE OF SIDEWALK AND IS SURROUNDED BY CONCRETE WALK.
 2. ENSURE CONCRETE CONTROL JOINTS AND EDGE OF CONCRETE WALK ARE A MINIMUM 9" FROM THE CENTER OF THE PUSH BUTTON FOUNDATION.
 3. INSTALL THE MANUFACTURER PROVIDED CABLE TETHER ASSEMBLY IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

TYPICAL APS PEDESTRIAN PUSH BUTTON LOCATION

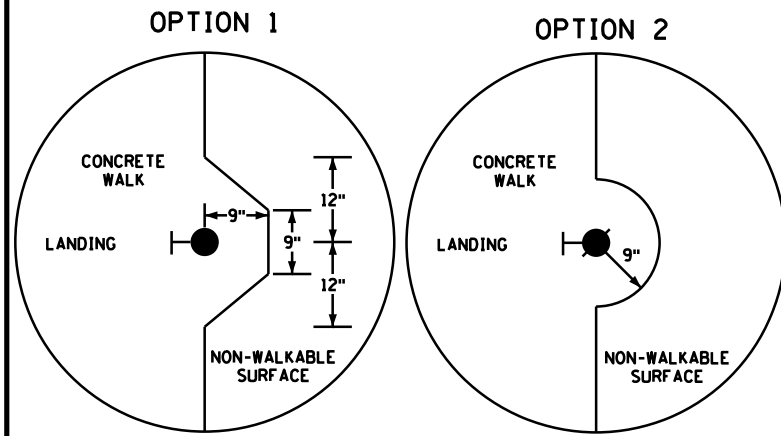
THIS IS A GENERAL DETAIL INTENDED TO SHOW THE REQUIREMENTS OF APS PUSH BUTTON LOCATION. FOR PROJECT SPECIFIC INFORMATION REGARDING PEDESTRIAN RAMP LAYOUT AND PUSH BUTTON LOCATIONS, SEE THE PLAN.

SUPPLEMENTAL GUIDANCE FOR CONSTRUCTING COMPLIANT APS PUSH BUTTONS:

1. THE FACE OF THE BUTTON SHALL BE PARALLEL WITH THE OUTSIDE EDGE OF CROSSWALK.
2. A MINIMUM 4 FT X 4 FT LANDING AREA SHALL BE PROVIDED ADJACENT TO EACH BUTTON, WITH A 2 PERCENT MAXIMUM SLOPE IN ALL DIRECTIONS.
3. BUTTONS SHALL BE WITHIN 5 FT OF THE OUTSIDE EDGE OF THE CROSSWALK.
4. BUTTONS SHALL BE BETWEEN 1.5 FT AND 10 FT FROM THE BACK OF CURB OR EDGE OF ROADWAY, MEASURED IN THE DIRECTION OF TRAVEL. STANDALONE PUSH BUTTON STATIONS SHOULD BE 4' MINIMUM FROM THE BACK OF CURB TO AVOID KNOCKDOWNS.
5. BUTTONS SHALL BE AT LEAST 10 FT APART.
6. PROVIDE A MAINTENANCE ACCESS ROUTE (MAR) WHEREVER POSSIBLE FOR SNOW REMOVAL PURPOSES. A MAR REQUIRES A 6 FT MINIMUM CLEAR DISTANCE BETWEEN A PUSH BUTTON AND ANY OBSTRUCTIONS, INCLUDING BUILDINGS, V-CURB, ELECTRICAL FOUNDATIONS, SIGNAL CABINETS, OR ANOTHER PUSH BUTTON.
7. BUTTON SHOULD BE 2 FT MINIMUM FROM RAMP GRADE BREAK AND BACK OF WALK.



CONTRACTOR MUST USE OPTION 1 OR 2 WHEN THE APS PUSH BUTTON IS SHOWN AT THE EDGE OF WALK. OPTION USED (OR SELECTED) MUST BE THE SAME THROUGHOUT THE ENTIRE PROJECT.



SIGNAL CONTROL POINTS			DISTANCE TO FRONT OF LANDING (FT)	DISTANCE TO BACK OF LANDING (FT)
SIGNAL NO.	X	Y	A	B
PB2-1	-	-	A	B
PB4-2	-	-	C	D

- A - DISTANCE MEASURED FROM THE PUSH BUTTON TO THE FRONT OF LANDING/TOP OF RAMP
- B - CLEAR DISTANCE MEASURED FROM THE PUSH BUTTON TO THE BACK OF LANDING/EDGE OF WALK
- C - CLEAR DISTANCE MEASURED FROM THE PUSH BUTTON TO THE OUTSIDE EDGE OF DOMES IN THE DIRECTION OF TRAVEL
- D - CLEAR DISTANCE FROM THE PUSH BUTTON TO THE BACK OF LANDING MEASURED IN THE OPPOSITE DIRECTION OF TRAVEL

wsb

WSB PROJECT NO.: 019869-000

SCALE: DESIGN BY:
AS SHOWN

PLAN BY: CHECK BY:

REVISIONS

NO.	DATE	DESCRIPTION

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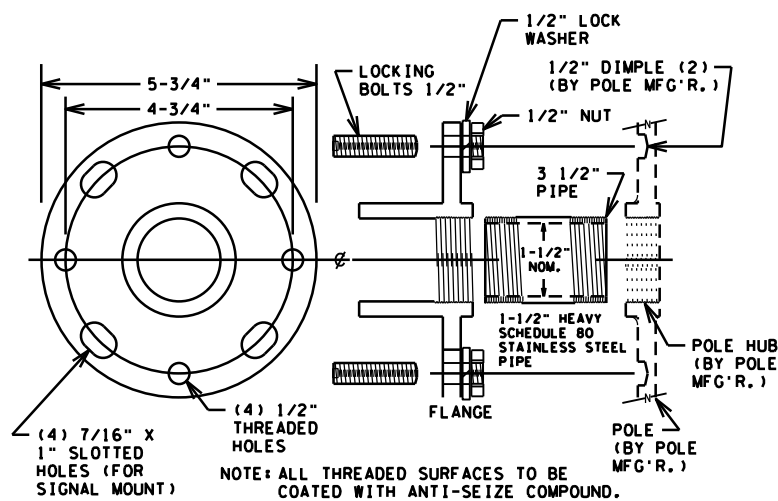
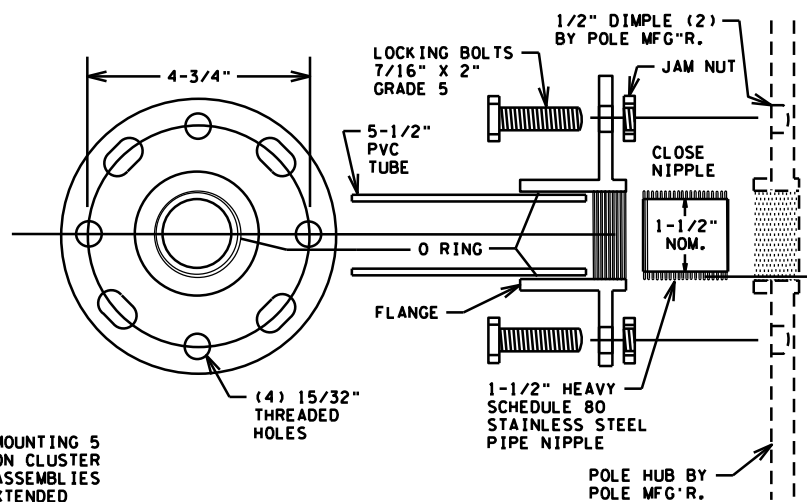
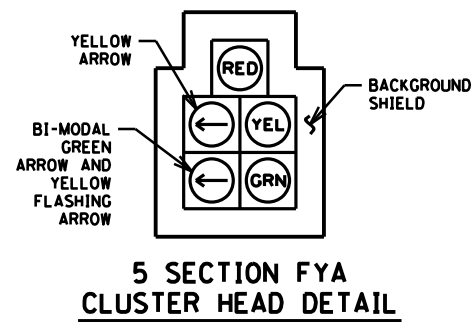
SEAN BELMORE, PE
DATE: 10/27/2022 LIC. NO.: 40845

CITY OF BLAINE, MN

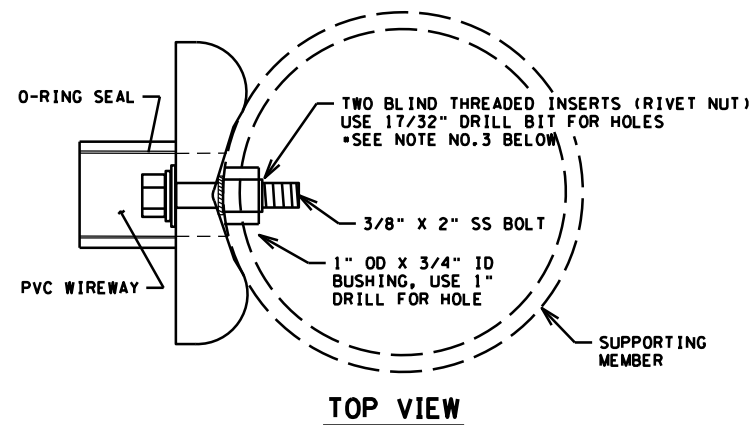
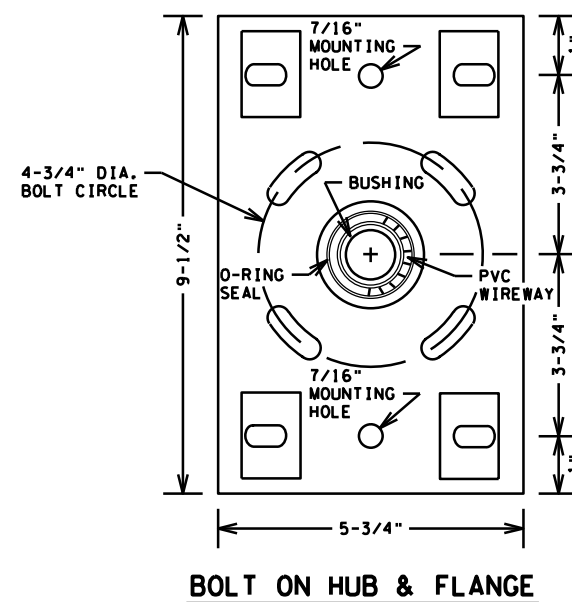
**LEXINGTON AVENUE NE AT
131ST AVENUE NE
INTERSECTION IMPROVEMENTS**

TRAFFIC CONTROL SIGNAL SYSTEM

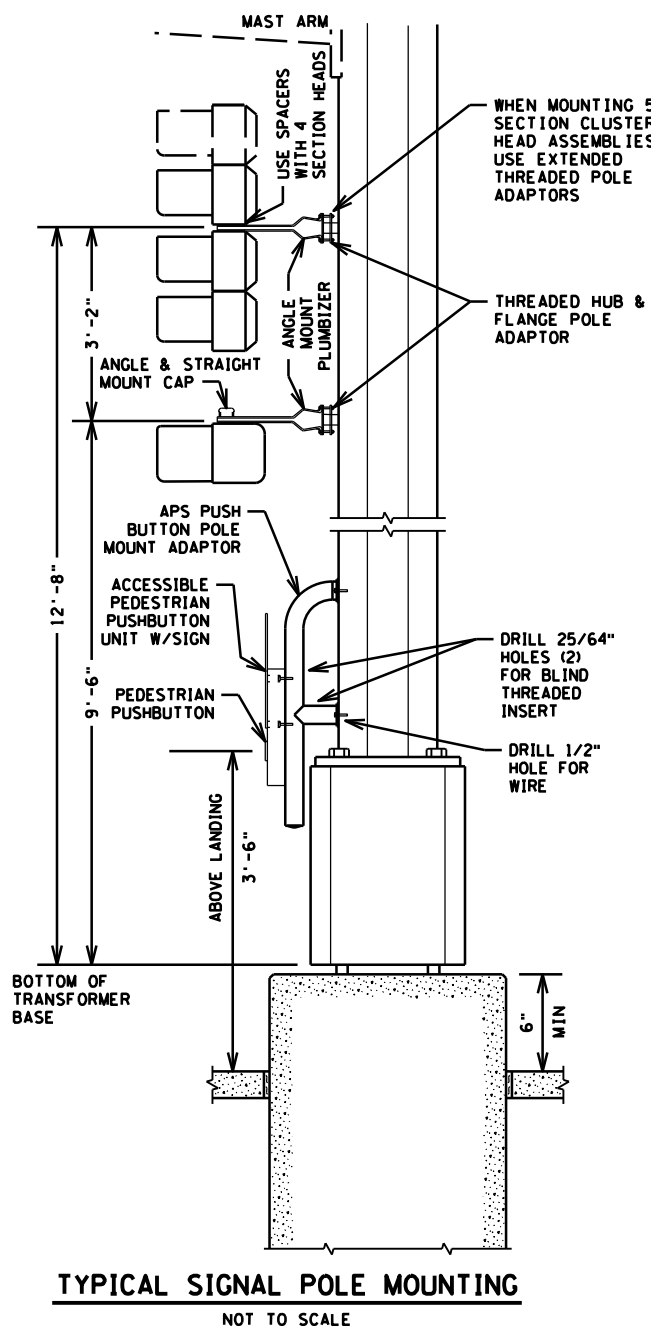
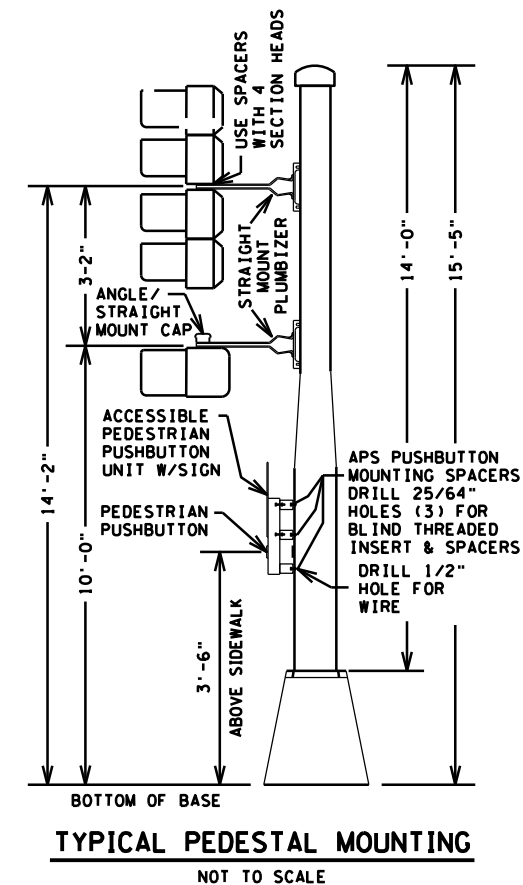
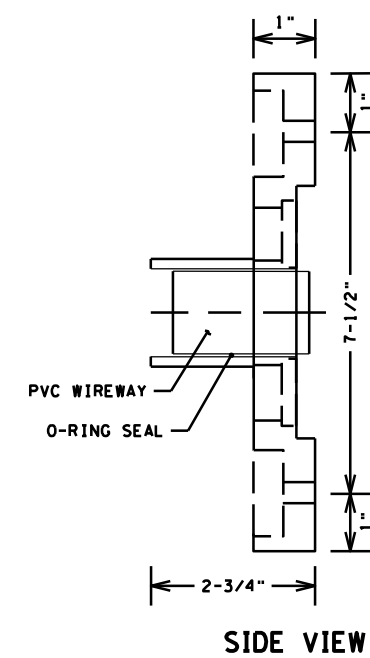
SHEET
39
OF
53
SHEETS



- NOTES:
1. ALL THREADED SURFACES TO BE COATED WITH ANTI-SEIZE COMPOUND.
 2. USE SIGNAL HEAD MOUNTED SPACERS FOR 4 SECTION POLY HEADS.
 3. SEE STANDARD PLATE NUMBER 8123 FOR ADDITIONAL SIGNAL POLE DETAILS.
 4. EXTENDED THREADED POLE ADAPTOR ONLY USED WITH 5 SECTION CLUSTER HEADS.



- NOTES:
1. ALL THREADED SURFACES TO BE COATED WITH ANTI-SEIZE COMPOUND.
 2. USE SIGNAL HEAD MOUNTED SPACERS FOR 4 SECTION POLY HEADS.
 3. BLIND THREADED INSERTS (RIVET NUT) MUST BE INSERTED USING MANUFACTURERS SPECIFIC INSERTION TOOL. NO OTHER METHOD IS ACCEPTABLE.
 4. SEE STANDARD PLATE NUMBER 8122 FOR ADDITIONAL PEDESTAL POLE DETAILS.



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CITY OF BLAINE, MN
**LEXINGTON AVENUE NE AT
131ST AVENUE NE
INTERSECTION IMPROVEMENTS**

**TRAFFIC CONTROL
SIGNAL SYSTEM**

PLOTTED/REVISED: 10/27/2022 10:12:28 AM

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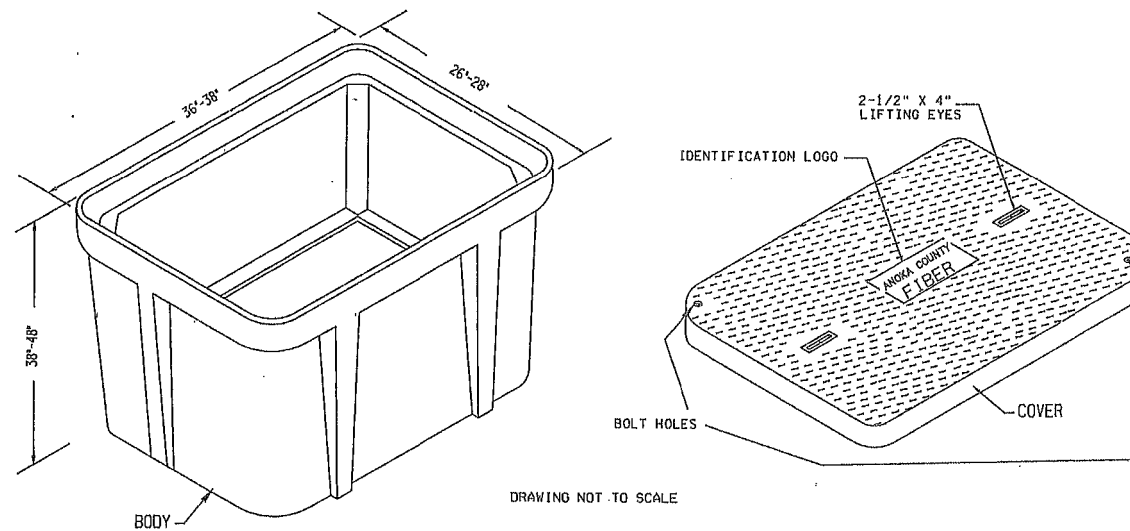
CONDUCTOR COLOR CODE		
FROM	TO DEVICE	
SIGNAL SERVICE 1/C 6 EGC	AS SHOWN ON PLAN	
SOP 3-1/C 2 ^R WH BLK	SIGNAL SERVICE	
SIGNAL SERVICE 3-1/C 6 ^{BLK} WH G	SIGNAL CABINET	
SIGNAL CABINET (6SM) CABLE	SIGNAL CABINET	
SIGNAL CABINET TO DEVICE		
6PR 19	AS SHOWN ON PLAN	
COAXIAL CABLE	AS SHOWN ON PLAN	
4/C 18 ^R BLK WH G	AS SHOWN ON PLAN	
2/C 14 ^{BLK} WH OR CLR	AS SHOWN ON PLAN	
3/C 20 ^{R OR O} WH OR YEL BLK OR BL	AS SHOWN ON PLAN	
CAT 5	AS SHOWN ON PLAN	
SIGNAL CABINET TO DEVICE		
6/C 14 ^R BLK WH BLK/R BLK	RED/RLA YEL/YLA 4 AND 5 SECTION GRN/GLA NEU SIGNAL HEADS YLA/FYA GLA	
4/C 14 ^R BLK/R BLK WH	RED/DWK 3 SECTION HEAD YEL/WLK PED HEADS GRN/SPR NEU	
4/C 14 ^R BLK/R BLK WH	RED YEL GRN NEU	5 SECTION (CLUSTER HEADS ONLY)
4/C 14 ^R BLK/R BLK WH	FYA YLA GLA NEU	
3/C 14 ^{BLK} G WH	EVP LIGHT/AWF LUMINAIRE VIDEO CAMERA ENFORCEMENT LIGHT	

NOTES:
ARRANGE AND TERMINATE CONDUCTORS AND CABLES AS SHOWN WITHOUT SPLICE.
NUMBER ONLY MEANS AWG CONDUCTOR SIZE (e.g. 14=14AWG)
1/C MEANS AN INDIVIDUAL CONDUCTOR NOT PART OF A CABLE ASSEMBLY

WIRE COLOR CODE KEY	
R	Red
O	Orange
BL	Blue
WH	White
BLK	Black
BRN	Brown
CL	Clear
G	Green
R/BLK	Red with Black Stripe
O/BLK	Orange with Black Stripe
BL/BLK	Blue with Black Stripe
WH/BLK	White with Black Stripe
WH/R	White with Red Stripe
BLK/WH	Black with White Stripe
BLK/R	Black with Red Stripe

CONDUCTOR AND CABLE SPECIFICATION CHART		
NUMBER OF CONDUCTORS & AWG SIZE	TYPE	Specification Number
1/C 2	INDIVIDUAL SERVICE CONDUCTORS	3815.2B.1
1/C 6	FEEDER AND BRANCH CONDUCTORS	3815.2B.1
1/C 6 INS.GR.	Grounding Conductors	3815.2B.5
2/C 14	Loop Detector Lead-In Cable	3815.2C.4
3/C 14	Signal Control Cable	3815.2C.3
4/C 14	Signal Control Cable	3815.2C.3
6/C 14	Signal Control Cable	3815.2C.3
12/C 14	Signal Control Cable	3815.2C.3
6PR 19	Telephone Cables Outdoor	3815.2C.6.b
3/C 20	EVP Detector Cable	3815.2C.5

FIBER-OPTIC PULLING VAULT DETAIL



CABLE LABELING ABBREVIATIONS		
ABBREVIATION	LABEL REFERENCE DSRIPTION & EXAMPLE	COMPONENT
X-Y	INDICATION NUMBER 2-1	SIGNAL HEAD
X-Y	LOOP NUMBER D2-1	DETECTOR
X-Y	PUSH BUTTON NUMBER PB2-1	PUSH BUTTON
X-Y	PED INDICATION NUMBER P2-1	PED INDICATION
X-Y	LUMINAIRE NUMBER L1	LUMINAIRE
X-Y	EVP PHASE NUMBER EVP 2+5	EVP DETECTOR
X-Y	EVP LIGHT PHASE NUMBER EVPL 2+5	EVP CON. LIGHT
X-Y	VIDEO DETECTION PHASE V2-1	VIDEO DETECTION
X-Y	RADAR DETECTION PHASE RD2-1	RADAR DETECTION
SS	SIGNAL SERVICE	SERVICE WIRE
CC	CABINET COMMS	COMMS CABLE
FO	FIBER OPTIC	FIBER CABLE
SPARE Y	SPARE WIRE TO POLE NUMB. SPARE1	SPARE WIRE
ELYZ *	ENFORC. LIGHT POLE & DIRECTION	ENFORCEMENT LIGHT
PTZ1	PTZ CAMERA POLE NUMBER PTZ1	PTZ CAMERA
IC	INTERCONNECT CABLE	INTERCONNECT
EGC	EQUIPMENT GROUNDING CONDUCTOR	GROUND

X = SIGNAL SYSTEM PHASE NUMBER; REFER TO THE PLAN
Y = SIGNAL SYSTEM ASSIGNED COMPONENT NUMBER; REFER TO THE PLAN
Z * = DIRECTION
FURNISH AND INSTALL LABELS ON CABLES WITH ABBREVIATIONS SHOWN ON THIS TABLE AND IN ACCORDANCE WITH THE WIRING DIAGRAM.

SCALE: DESIGN BY:
AS SHOWN
PLAN BY: CHECK BY:

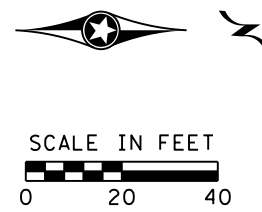
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Sean Belmore, PE
SEAN BELMORE, PE
DATE: 10/27/2022 LIC. NO.: 40845

CITY OF BLAINE, MN
**LEXINGTON AVENUE NE AT
131ST AVENUE NE
INTERSECTION IMPROVEMENTS**

**TRAFFIC CONTROL
SIGNAL
SYSTEM**



- NOTES:
- REFER TO SHEETS FOR INPLACE SIGNAL COMPONENTS.
 - ENSURE THE EXACT LOCATION OF THE HANDHOLES, POLES, LOOP DETECTORS AND EQUIPMENT PAD ARE VERIFIED IN THE FIELD BY TRAFFIC OFFICE PERSONNEL.
 - THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE CONNECTION OF THE POWER FOR THE TRAFFIC SIGNAL SYSTEM.
 - FOR SIGN PANELS ON SIGNAL SEE DETAIL SHEET. ALL SIGN PANELS REQUIRED ARE INCLUDED IN PAYMENT FOR THE TRAFFIC CONTROL SIGNAL SYSTEM PAY ITEM.
 - ALL PAVEMENT MARKINGS ARE INCLUDED IN PAVEMENT MARKING PLAN.
 - CONSTRUCTION OF PEDESTRIAN CURB RAMPS ARE PART OF THE CONSTRUCTION PLAN AND ARE NOT INCLUDED IN PAYMENT FOR THE SIGNAL SYSTEM.
 - THIS PLAN SPECIFIES CONDUIT SIZES, TYPES, AND GENERAL LOCATIONS. THE EXACT LOCATIONS WILL BE DETERMINED IN THE FIELD. CONDUITS UNDER THE ROADWAYS REQUIRE BORING.
 - USE PVC OR HDPE FOR ALL NEW CONDUIT.
 - CONDUIT SIZES ARE NOMINAL DIAMETER.
 - ALL WIRES LISTED ARE AWG (AMERICAN WIRE GAUGE).
 - ITEMS DENOTED WITH AN * ARE INCLUDED IN PAYMENT FOR THE EVP SYSTEM PAY ITEM.

(A)
EQUIPMENT PAD (SEE DETAIL SHEET)
SERVICE CABINET (SSB) BATTERY BACKUP SYSTEM (BATTERIES INCLUDED)
CONTROLLER AND CABINET

3" CONDUIT TO INP HH 1:
2-6/C 14
4-4/C 14
6-2/C 14
*1-3/C 14 (EVP)
*1-3/C 20 (EVP)
1-1/C INS. GR.

3" CONDUIT TO HH 15:
2-6/C 14
5-4/C 14
6-2/C 14
*1-3/C 14 (EVP)
*1-3/C 20 (EVP)
1-1/C INS. GR.

1.5" CONDUIT
12SM F/O
TO 25TH AVE
(SEE INTERCONNECT SHEET)

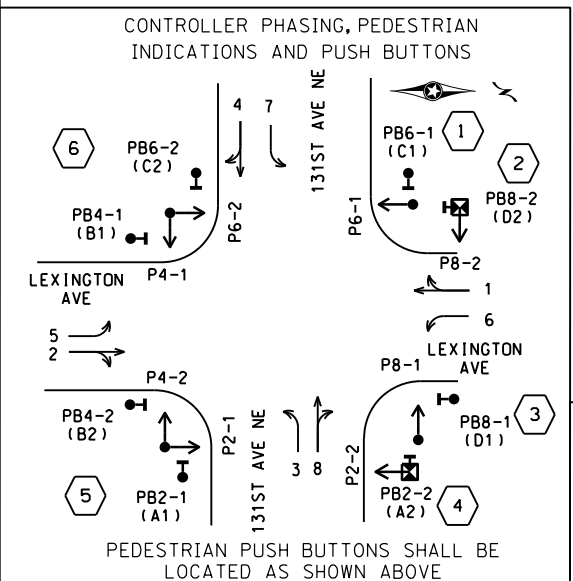
3" CONDUIT TO INP HH 1:
2-6/C 14
5-4/C 14
7-2/C 14
*1-3/C 14 (EVP)
*1-3/C 20 (EVP)
1-1/C INS. GR.

3" CONDUIT TO HH 15:
2-5/C 14
4-4/C 14
6-2/C 14
*1-3/C 14 (EVP)
*1-3/C 20 (EVP)
1-1/C INS. GR.

1.5" CONDUIT
12SM F/O

GROUND WIRE AND GROUND ROD - MIN 8' OUT FROM PAD
2-2" AND 1-3" CONDUIT STUBBED OUT (CAPPED BOTH ENDS)
CABINET TO SERVICE CABINET:
2" CONDUIT
3-1/C 6
SERVICE CABINET TO INP HH 1:
2" CONDUIT
2-3/C 14 (LUM)
SERVICE CABINET TO HH 15:
2" CONDUIT
2-3/C 14 (LUM)
SERVICE CABINET TO EXTERNAL GR. RD.
1" CONDUIT
1-1/C 6 INS. GR. (SEE EQUIPMENT PAD DETAIL)

(B) INP SOP (CONNEXUS)
GROUND MOUNTED
TRANSFORMER



LOOP DETECTOR CHART		
NUMBER	SIZE (FT)	LOCATION
D1-1, D5-1	2-6x6	20 & 50
D1-2, D5-2	2-6x6	5 & 35
D2-1, D2-2	6x6	475
D3-1, D7-1	2-6x6	20 & 50
D3-2, D7-2	2-6x6	5 & 35
D4-1, D8-1	6x6	120
D4-2	2-6x6	5 & 20
D6-1, D6-2	6x6	475
D8-2, D8-3	2-6x6	5 & 20

-ALL LOOP DETECTORS SHALL BE PVC UNLESS NOTED OTHERWISE
-LOCATION: DISTANCE FROM CROSSWALK/STOP BAR IN FEET

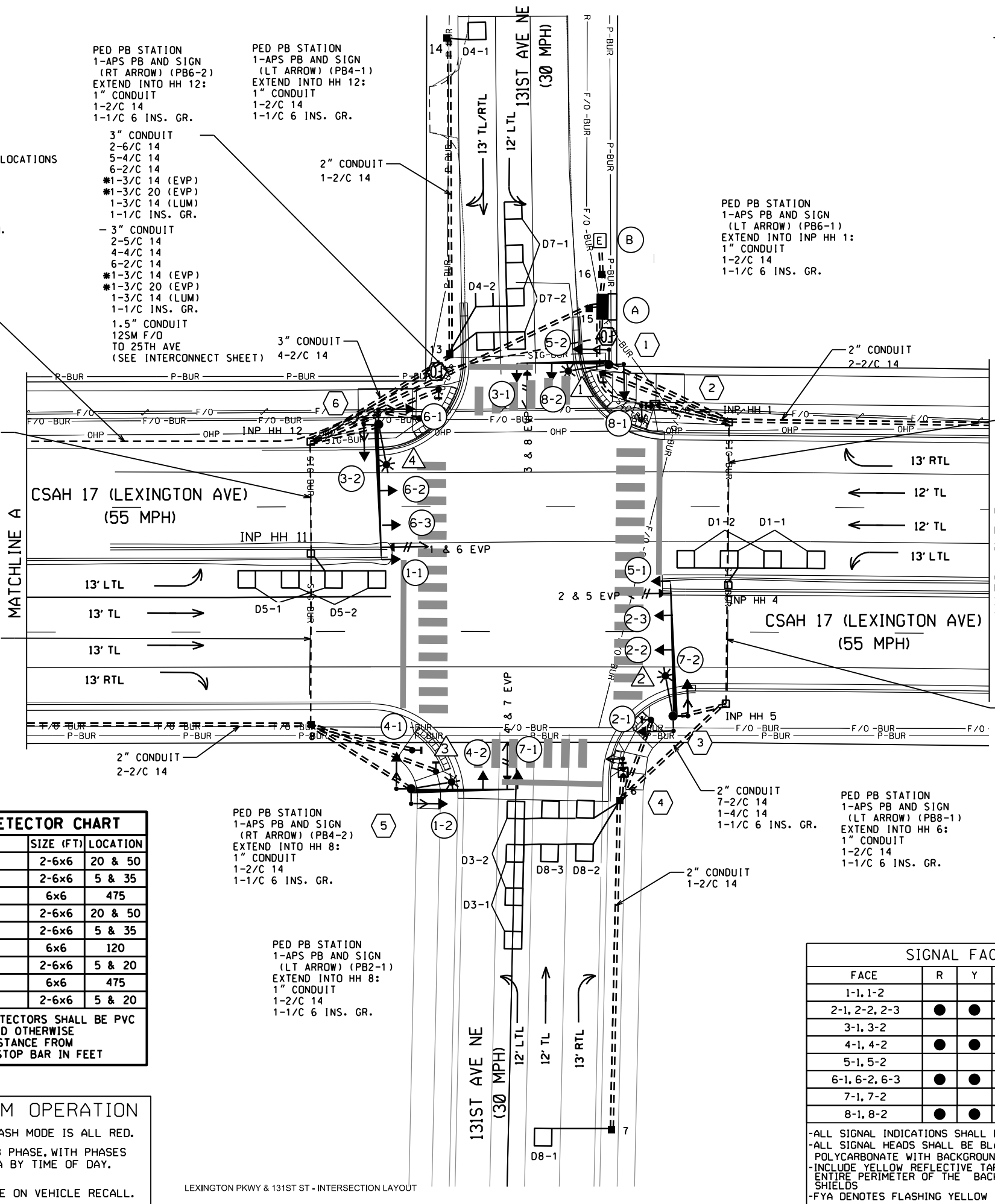
SIGNAL SYSTEM OPERATION

- THE SIGNAL SYSTEM FLASH MODE IS ALL RED.
- NORMAL OPERATION IS 8 PHASE, WITH PHASES 1, 3, 5 AND 7 BEING FYA BY TIME OF DAY.
- PHASES 2 & 6 SHALL BE ON VEHICLE RECALL.

3" CONDUIT
2-6/C 14
5-4/C 14
6-2/C 14
*1-3/C 14 (EVP)
*1-3/C 20 (EVP)
1-3/C 14 (LUM)
1-1/C INS. GR.

2" CONDUIT
1-2/C 14

1.5" CONDUIT
12SM F/O
TO 25TH AVE
(SEE INTERCONNECT SHEET)



SIGNAL FACE CHART							
FACE	R	Y	G	RLA	YLA	FYA	GLA
1-1, 1-2				←	←	←	←
2-1, 2-2, 2-3	●	●	●				
3-1, 3-2				←	←	←	←
4-1, 4-2	●	●	●				
5-1, 5-2				←	←	←	←
6-1, 6-2, 6-3	●	●	●				
7-1, 7-2				←	←	←	←
8-1, 8-2	●	●	●				

-ALL SIGNAL INDICATIONS SHALL BE 12" LED
-ALL SIGNAL HEADS SHALL BE BLACK POLYCARBONATE WITH BACKGROUND SHIELDS
-INCLUDE YELLOW REFLECTIVE TAPE ON THE ENTIRE PERIMETER OF THE BACKGROUND SHIELDS
-FYA DENOTES FLASHING YELLOW ARROW

REVISIONS	
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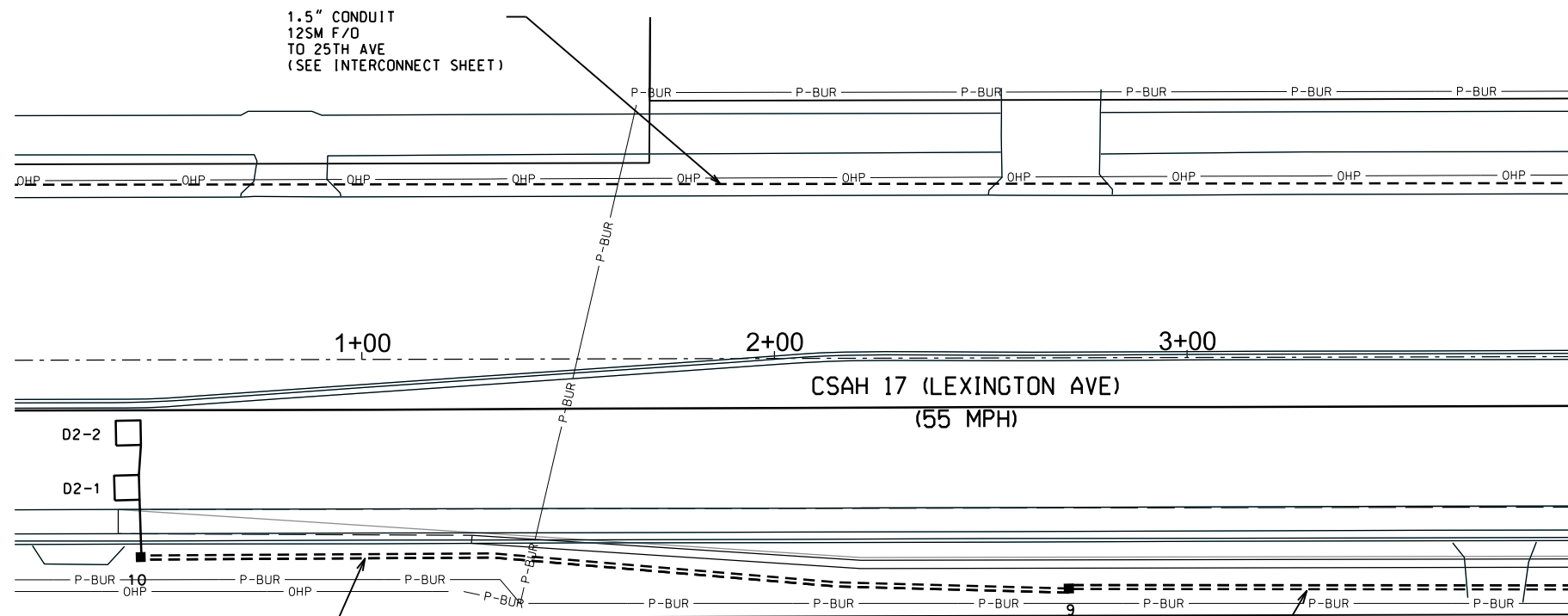
Sean Belmore
SEAN BELMORE, PE
DATE: 10/27/2022 LIC. NO.: 40845

CITY OF BLAINE, MN
**LEXINGTON AVENUE NE AT
131ST AVENUE NE
INTERSECTION IMPROVEMENTS**

**TRAFFIC CONTROL
SIGNAL
SYSTEM**

PLOTTED/REVISED: 10/27/2022 2:13:42 PM

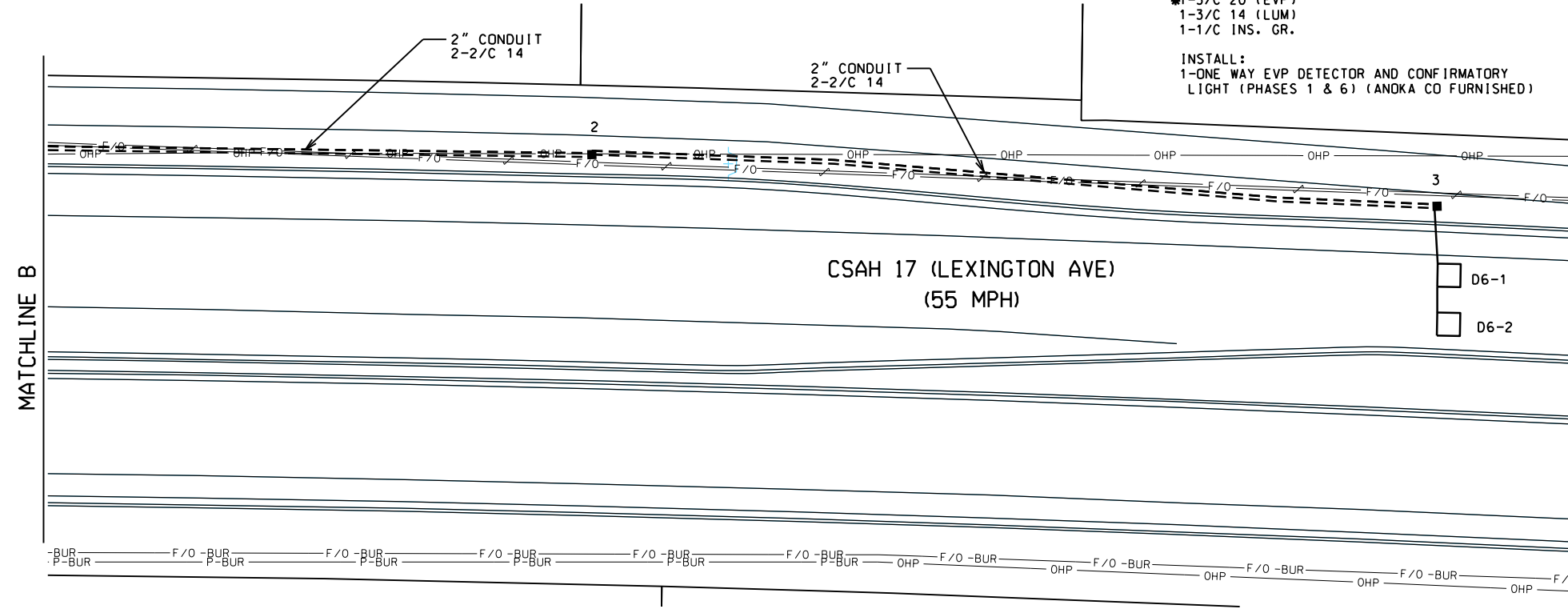
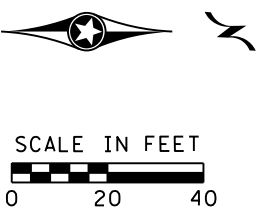
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1 F&I:
 PA90 POLE FOUNDATION
 X=530605.1221 Y=150026.1606
 TYPE PA90-A-30-D30-9 (DAVIT AT 350 DEG)
 1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
 1-STRAIGHT MOUNT SIGNAL OVERHEAD AT 12'
 2-ANGLE MOUNT SIGNAL AT 90 & 180 DEG
 1-ANGLE MOUNT C.D. PED IND AT 90 DEG
 D SIGN (SEE DETAIL SHEET)
 LED LUMINAIRE (FOR 40' MOUNTING HEIGHT)
 EXTEND INTO INP HH 1:
 2-6/C 14
 3-4/C 14
 *1-3/C 14 (EVP)
 *1-3/C 20 (EVP)
 1-3/C 14 (LUM)
 1-1/C INS. GR.
 INSTALL:
 1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASES 3 & 8) (ANOKA CO FURNISHED)

2 F&I:
 PEDESTAL FOUNDATION
 1-10' SIGNAL PEDESTAL PLUS BASE
 1-ANGLE MOUNT C.D. PED IND AT 180 DEG
 1-APS PUSH BUTTON AND SIGN (RT ARROW) (PB8-2)
 EXTEND INTO INP HH 1:
 1-4/C 14
 1-2/C 14
 1-1/C INS. GR.

3 F&I:
 PA100 POLE FOUNDATION
 X=530616.0176 Y=149935.0448
 TYPE PA100-A-45-D30-9 (DAVIT AT 350 DEG)
 1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
 2-STRAIGHT MOUNT SIGNAL OVERHEAD AT 12' & 24'
 2-ANGLE MOUNT SIGNAL AT 90 & 180 DEG
 1-ANGLE MOUNT C.D. PED IND AT 90 DEG
 D SIGN (SEE DETAIL SHEET)
 2-R6-1 SIGN PANELS - POLE MOUNTED 0 AND 180 DEG
 LED LUMINAIRE (FOR 40' MOUNTING HEIGHT)
 EXTEND INTO INP HH 5:
 2-6/C 14
 4-4/C 14
 *1-3/C 14 (EVP)
 *1-3/C 20 (EVP)
 1-3/C 14 (LUM)
 1-1/C INS. GR.
 INSTALL:
 1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASES 2 & 5) (ANOKA CO FURNISHED)



4 F&I:
 PEDESTAL FOUNDATION
 1-10' SIGNAL PEDESTAL PLUS BASE
 1-ANGLE MOUNT C.D. PED IND AT 180 DEG
 1-APS PUSH BUTTON AND SIGN (RT ARROW) (PB2-2)
 EXTEND INTO HH 6:
 1-4/C 14
 1-2/C 14
 1-1/C INS. GR.

5 F&I:
 PA90 POLE FOUNDATION
 X=530501.8090 Y=149926.8684
 TYPE PA90-A-30-D30-9 (DAVIT AT 350 DEG)
 1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
 1-STRAIGHT MOUNT SIGNAL OVERHEAD AT 12'
 2-ANGLE MOUNT SIGNAL AT 90 & 180 DEG
 2-ANGLE MOUNT C.D. PED INDS AT 90 & 180 AND DEG
 D SIGN (SEE DETAIL SHEET)
 LED LUMINAIRE (FOR 40' MOUNTING HEIGHT)
 EXTEND INTO HH 8:
 2-6/C 14
 4-4/C 14
 *1-3/C 14 (EVP)
 *1-3/C 20 (EVP)
 1-3/C 14 (LUM)
 1-1/C INS. GR.
 INSTALL:
 1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASES 4 & 7) (ANOKA CO FURNISHED)

6 F&I:
 PA100 POLE FOUNDATION
 X=526668.0246 Y=162896.1544
 TYPE PA100-A-45-D30-9 (DAVIT AT 350 DEG)
 1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
 2-STRAIGHT MOUNT SIGNALS OVERHEAD AT 12' & 24'
 2-ANGLE MOUNT SIGNAL AT 90 & 180 DEG
 2-ANGLE MOUNT C.D. PED INDS AT 90 & 180 AND DEG
 D SIGN (SEE DETAIL SHEET)
 2-R6-1 SIGN PANELS - POLE MOUNTED 0 AND 180 DEG
 LED LUMINAIRE (FOR 40' MOUNTING HEIGHT)
 EXTEND INTO INP HH 12:
 2-6/C 14
 5-4/C 14
 *1-3/C 14 (EVP)
 *1-3/C 20 (EVP)
 1-3/C 14 (LUM)
 1-1/C INS. GR.
 INSTALL:
 1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASES 1 & 6) (ANOKA CO FURNISHED)

LEXINGTON PKWY & 131ST ST - MATCHLINES

SCALE: DESIGN BY:
 AS SHOWN
 PLAN BY: CHECK BY:

NO.	DATE	DESCRIPTION
1	10/24/22	POLE 3, MAST ARM IS 48" NOT 30"
2	10/26/22	POLE 3, PA100 POLE & PA100 FOUNDATION

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
 SEAN BELMORE, PE
 DATE: 10/27/2022 LIC. NO.: 40845

CITY OF BLAINE, MN
**LEXINGTON AVENUE NE AT
 131ST AVENUE NE
 INTERSECTION IMPROVEMENTS**

**TRAFFIC CONTROL
 SIGNAL
 SYSTEM**

REVISIONS		
NO.	DATE	DESCRIPTION
1	10/27/22	CORRECT WIRING DIAGRAM

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Sean Delmore
SEAN DELMORE, PE
DATE: 10/27/2022 LIC. NO.: 40845

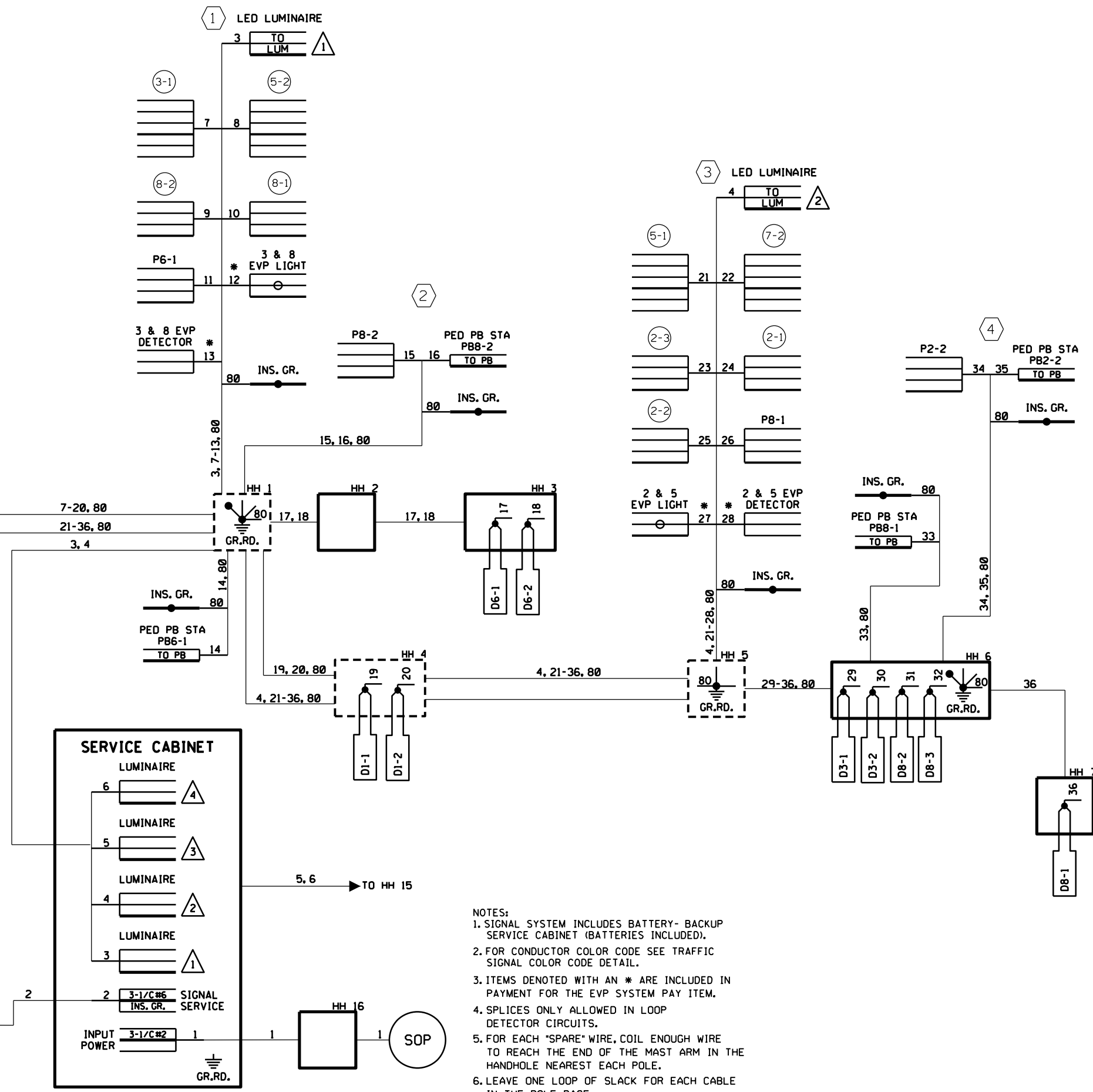
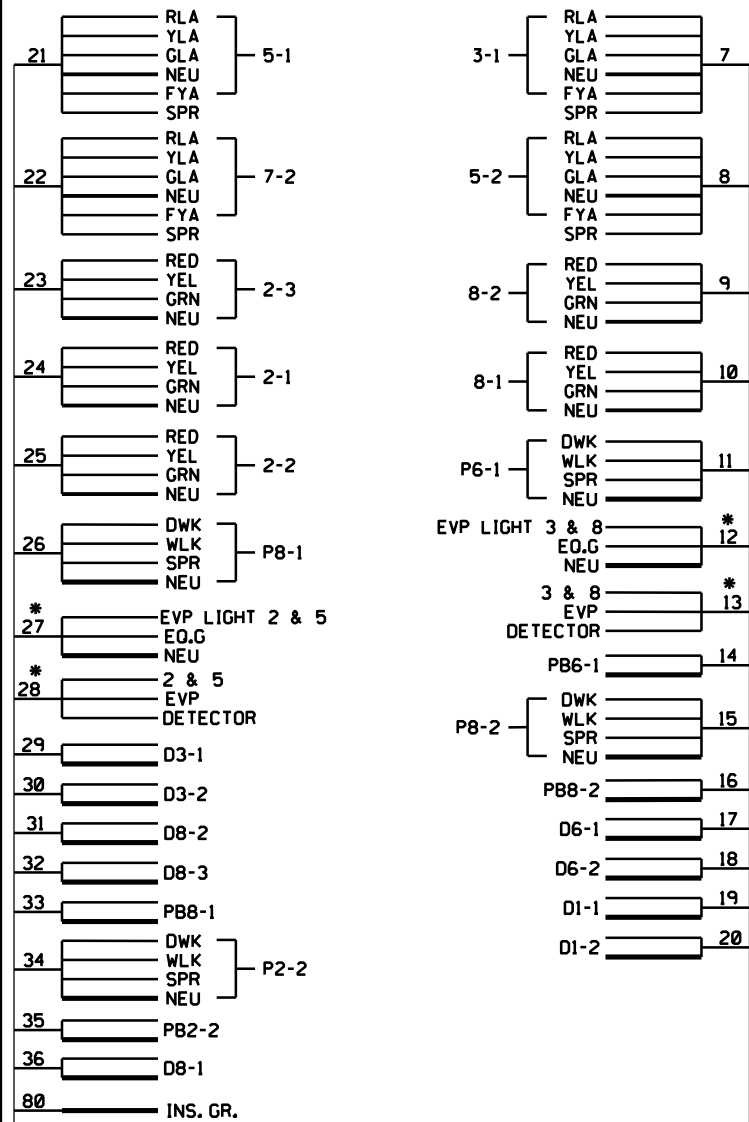
CITY OF BLAINE, MN
LEXINGTON AVENUE NE AT
131ST AVENUE NE
INTERSECTION IMPROVEMENTS

TRAFFIC CONTROL
SIGNAL SYSTEM

PLOTTED/REVISED: 10/27/2022 2:13:43 PM

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CABINET CONTROLLER

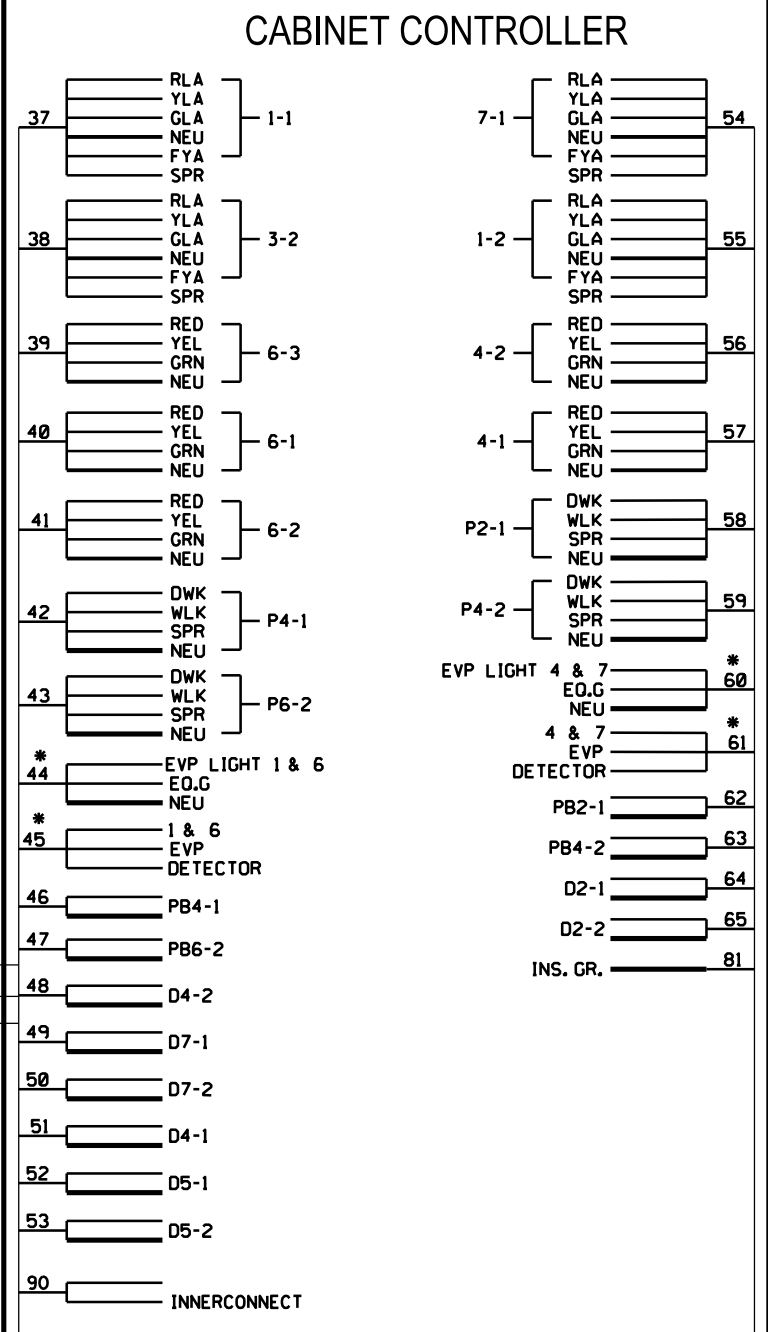
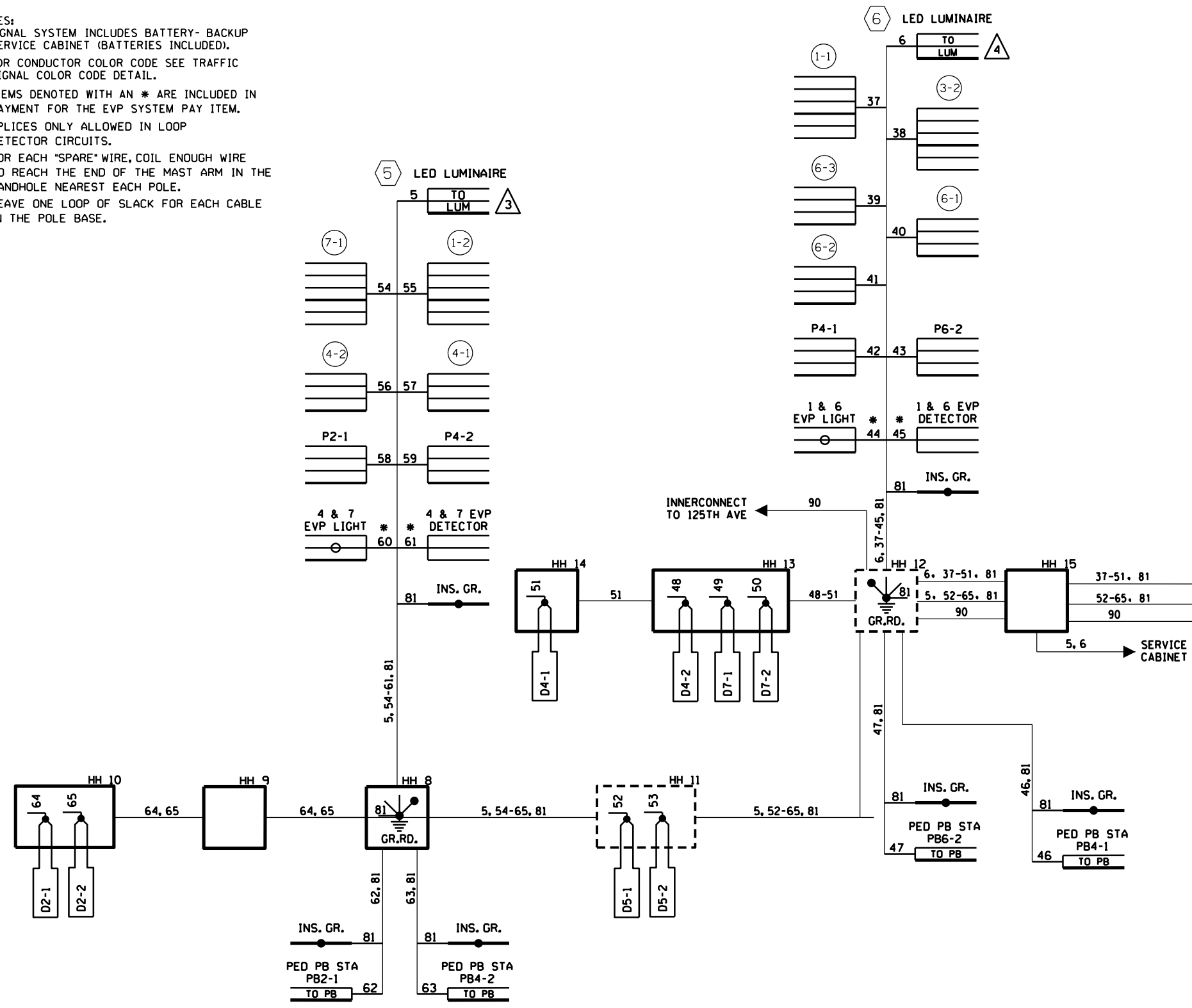


- NOTES:
1. SIGNAL SYSTEM INCLUDES BATTERY- BACKUP SERVICE CABINET (BATTERIES INCLUDED).
 2. FOR CONDUCTOR COLOR CODE SEE TRAFFIC SIGNAL COLOR CODE DETAIL.
 3. ITEMS DENOTED WITH AN * ARE INCLUDED IN PAYMENT FOR THE EVP SYSTEM PAY ITEM.
 4. SPLICES ONLY ALLOWED IN LOOP DETECTOR CIRCUITS.
 5. FOR EACH "SPARE" WIRE, COIL ENOUGH WIRE TO REACH THE END OF THE MAST ARM IN THE HANDHOLE NEAREST EACH POLE.
 6. LEAVE ONE LOOP OF SLACK FOR EACH CABLE IN THE POLE BASE.

PLOTTED/REVISED: 10/27/2022 2:13:43 PM

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- NOTES:
1. SIGNAL SYSTEM INCLUDES BATTERY- BACKUP SERVICE CABINET (BATTERIES INCLUDED).
 2. FOR CONDUCTOR COLOR CODE SEE TRAFFIC SIGNAL COLOR CODE DETAIL.
 3. ITEMS DENOTED WITH AN * ARE INCLUDED IN PAYMENT FOR THE EVP SYSTEM PAY ITEM.
 4. SPLICES ONLY ALLOWED IN LOOP DETECTOR CIRCUITS.
 5. FOR EACH "SPARE" WIRE, COIL ENOUGH WIRE TO REACH THE END OF THE MAST ARM IN THE HANDHOLE NEAREST EACH POLE.
 6. LEAVE ONE LOOP OF SLACK FOR EACH CABLE IN THE POLE BASE.



WSB PROJECT NO.:
019869-000

SCALE: DESIGN BY:
AS SHOWN

PLAN BY: CHECK BY:

NO.	DATE	DESCRIPTION	CORRECT WIRING DIAGRAM
1	10/27/22		

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

SEAN BELMORE, PE
DATE: 10/27/2022 LIC. NO.: 40845

CITY OF BLAINE, MN

LEXINGTON AVENUE NE AT
131ST AVENUE NE
INTERSECTION IMPROVEMENTS

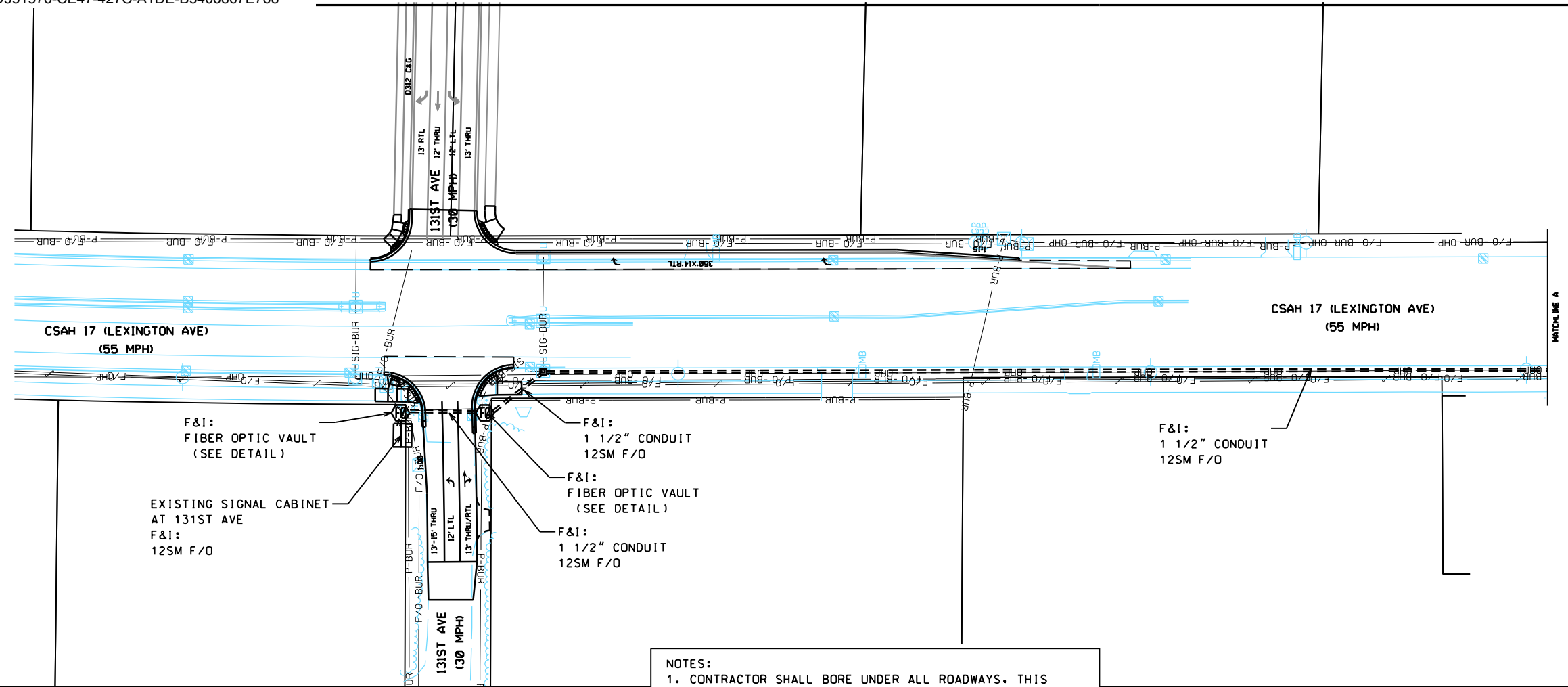
TRAFFIC
SIGNAL
SYSTEM

SHEET
45R
OF
53
SHEETS

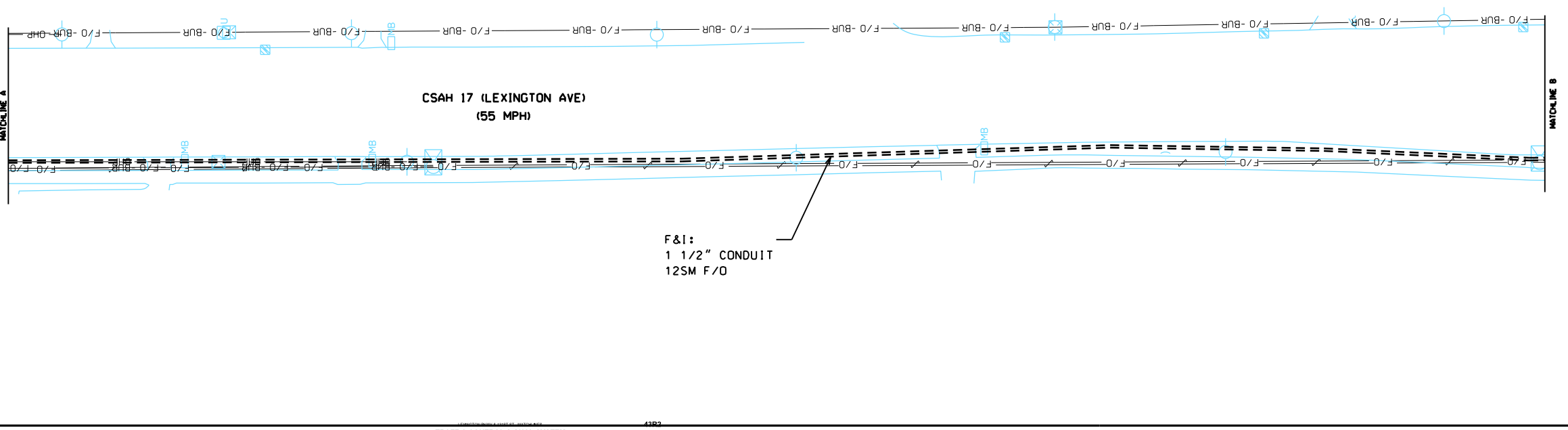
LEXINGTON PKWY & 131ST ST - WIRING DIAGRAM

PLOTTED/REVISED: 10/27/2022 10:12:50 AM

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NOTES:
 1. CONTRACTOR SHALL BORE UNDER ALL ROADWAYS, THIS IS INCLUDED IN THE PAY ITEM "TRAFFIC CONTROL SIGNAL SYSTEM."
 2. SEE "SIGNAL PLAN LAYOUT" SHEET AND "FOR INFORMATION ONLY" SHEET FOR EXISTING HANDHOLES AND CONDUIT.



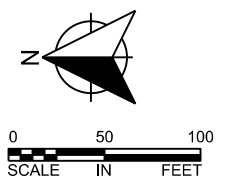
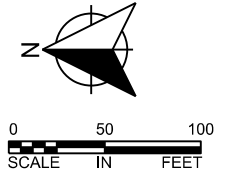
WSB PROJECT NO.: 019869-000

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 PLAN BY: CHECK BY:

NO.	DATE	DESCRIPTION

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Sean Belmore
 SEAN BELMORE, PE
 DATE: 10/27/2022 LIC. NO.: 40845



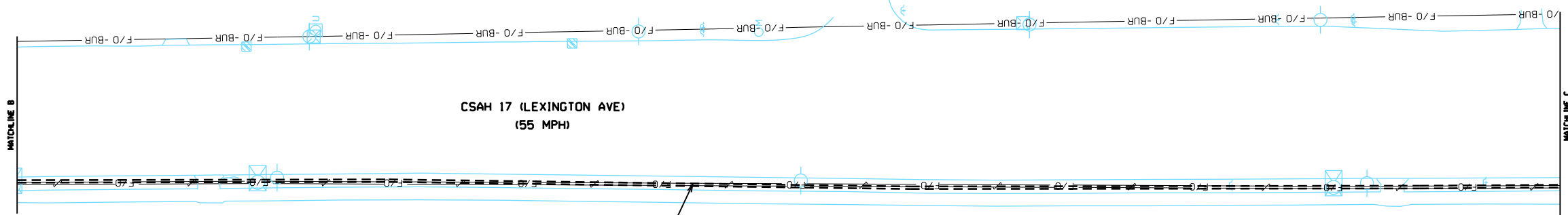
CITY OF BLAINE, MN
**LEXINGTON AVENUE NE AT
 131ST AVENUE NE
 INTERSECTION IMPROVEMENTS**

**TRAFFIC CONTROL
 SIGNAL SYSTEM**

SHEET
 46
 OF
 53
 SHEETS

PLOTTED/REVISED: 10/27/2022 10:12:51 AM

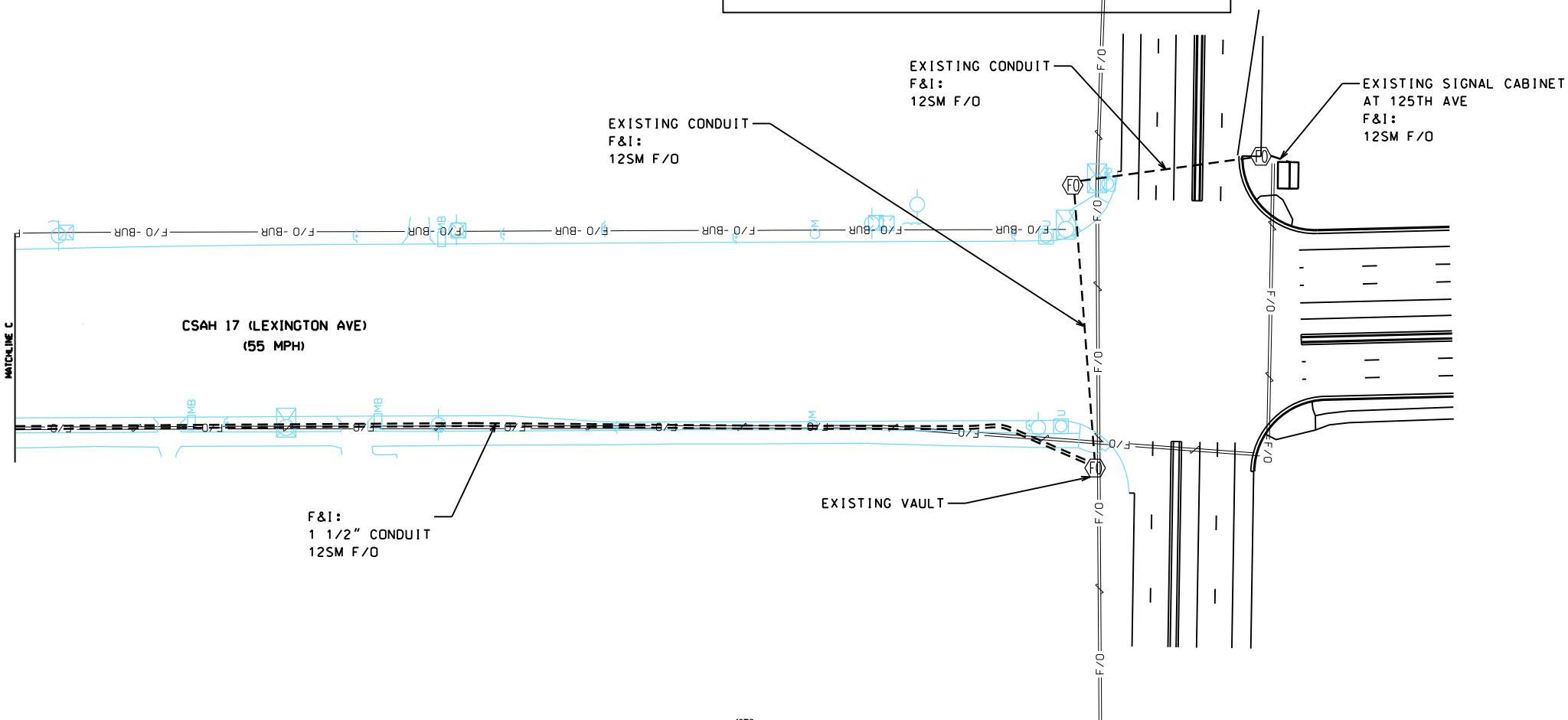
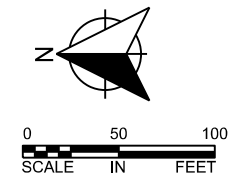
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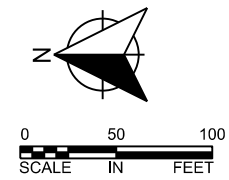
F&I:
1 1/2" CONDUIT
12SM F/O

NOTES:

1. CONTRACTOR SHALL BORE UNDER ALL ROADWAYS. THIS IS INCLUDED IN THE PAY ITEM "TRAFFIC CONTROL SIGNAL SYSTEM."
2. SEE "SIGNAL PLAN LAYOUT" SHEET AND "FOR INFORMATION ONLY" SHEET FOR EXISTING HANDHOLES AND CONDUIT.



F&I:
1 1/2" CONDUIT
12SM F/O



WSB PROJECT NO.:
019869-000

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PLAN BY: CHECK BY:

REVISIONS	
NO.	DESCRIPTION

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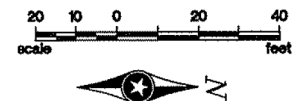
Sean Delmore
SEAN DELMORE, PE

DATE: 10/27/2022 LIC. NO.: 40845

CITY OF BLAINE, MN
**LEXINGTON AVENUE NE AT
131ST AVENUE NE
INTERSECTION IMPROVEMENTS**

**TRAFFIC CONTROL
SIGNAL
SYSTEM**

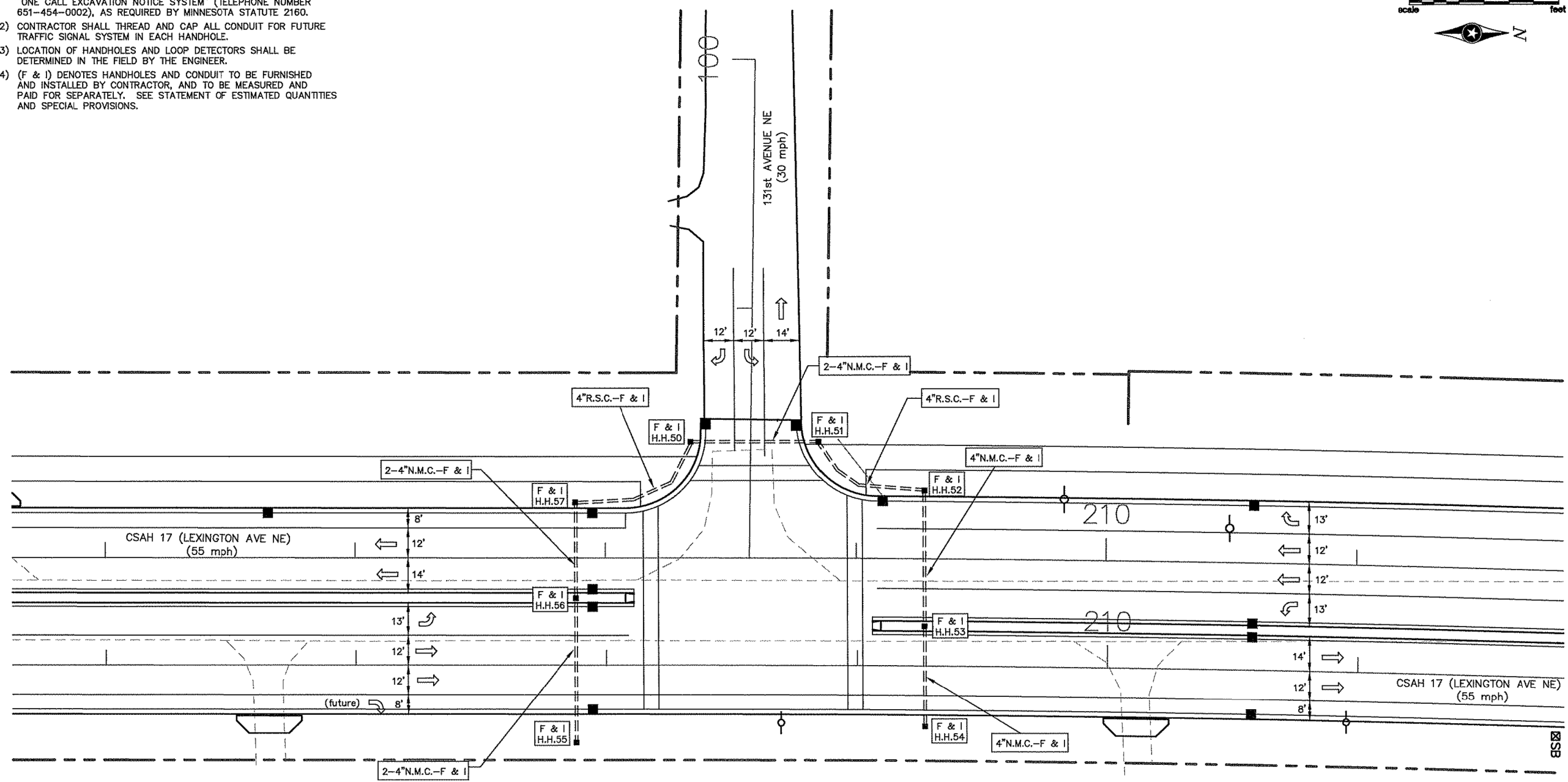
SHEET
47
OF
53
SHEETS



REVISIONS	
NO.	DATE

NOTES:

- 1) IT SHALL BE CONTRACTOR'S RESPONSIBILITY TO UTILIZE THE "ONE CALL EXCAVATION NOTICE SYSTEM" (TELEPHONE NUMBER 651-454-0002), AS REQUIRED BY MINNESOTA STATUTE 2160.
- 2) CONTRACTOR SHALL THREAD AND CAP ALL CONDUIT FOR FUTURE TRAFFIC SIGNAL SYSTEM IN EACH HANDHOLE.
- 3) LOCATION OF HANDHOLES AND LOOP DETECTORS SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.
- 4) (F & I) DENOTES HANDHOLES AND CONDUIT TO BE FURNISHED AND INSTALLED BY CONTRACTOR, AND TO BE MEASURED AND PAID FOR SEPARATELY. SEE STATEMENT OF ESTIMATED QUANTITIES AND SPECIAL PROVISIONS.



S.P. 002-617-018
S.P. 106-020-029 & 197-020-002

CITY OF BLAINE, MN
**LEXINGTON AVENUE NE AT
 131ST AVENUE NE
 INTERSECTION IMPROVEMENTS**

TRAFFIC CONTROL
SIGNAL SYSTEM

FOR INFORMATION ONLY

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COMMON SIGNALS CSAH_17_SIGNALS\0201716_23RBASE-CURRENT.DWG

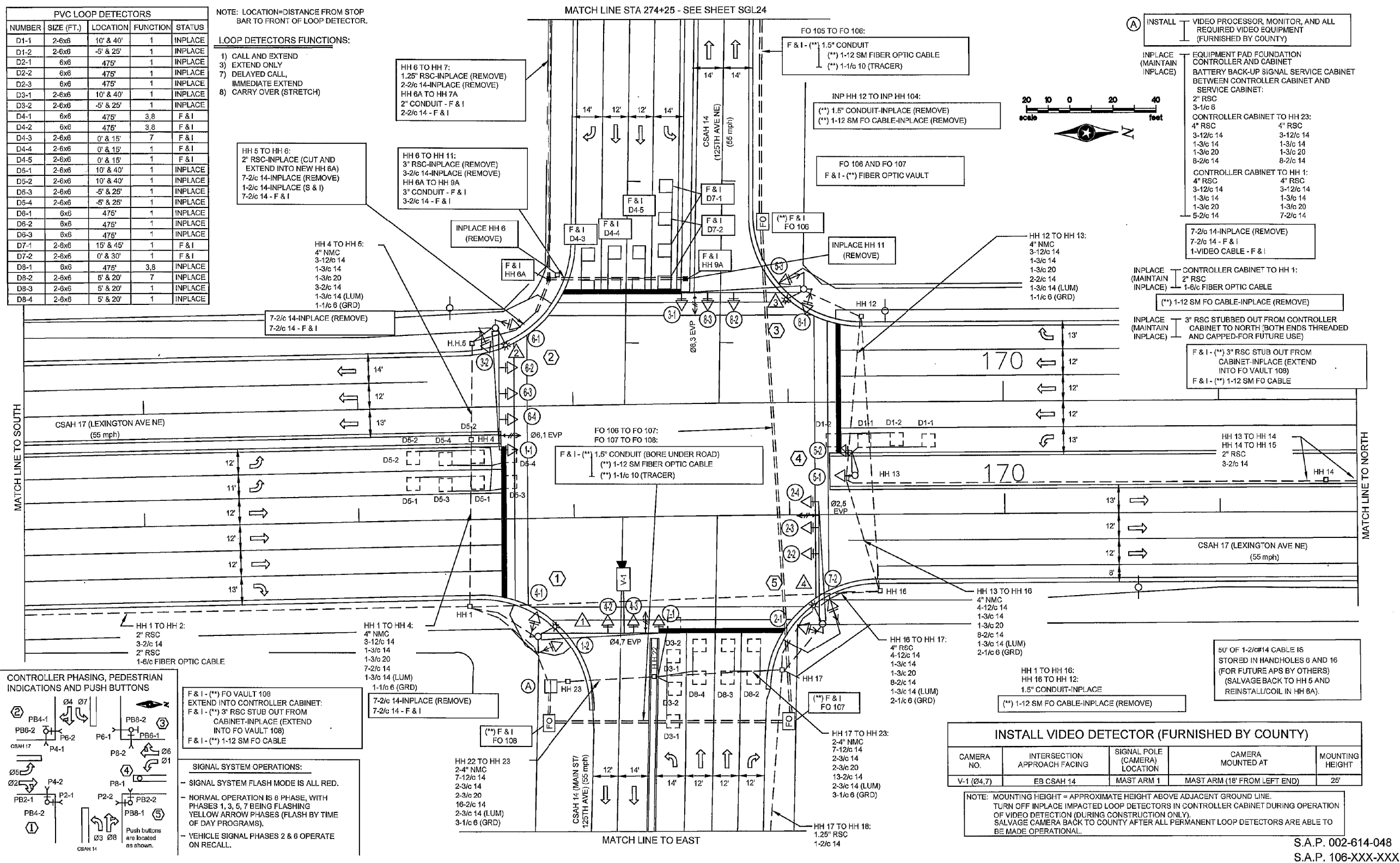
NO.	DATE	DESCRIPTION

CITY OF BLAINE, MN
**LEXINGTON AVENUE NE AT
 131ST AVENUE NE
 INTERSECTION IMPROVEMENTS**

**TRAFFIC CONTROL
 SIGNAL SYSTEM**

PLOTTED/REVISED: 10/27/2022 10:13:20 AM

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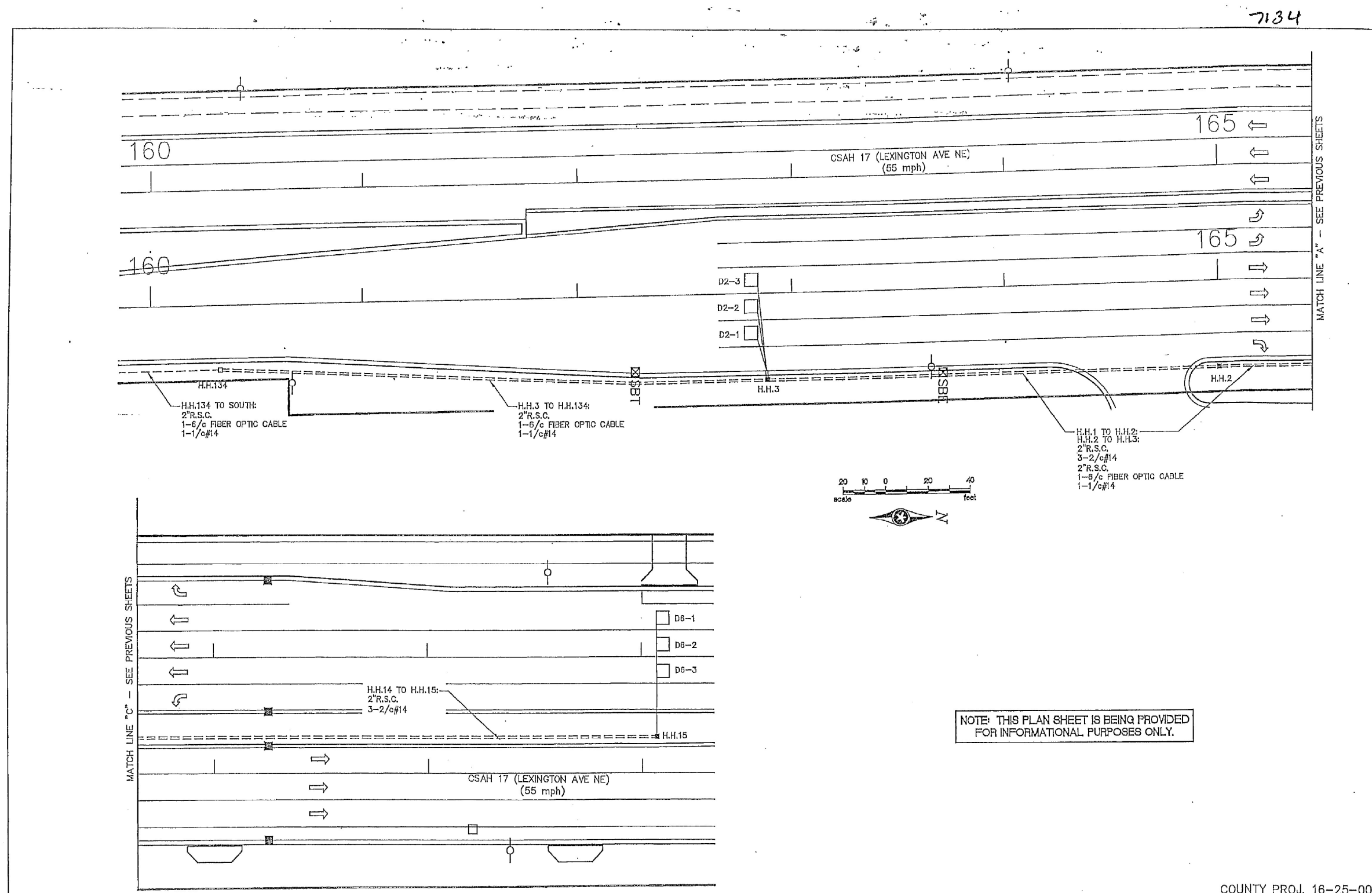


FOR INFORMATION ONLY

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REVISIONS	
NO.	DATE DESCRIPTION



CITY OF BLAINE, MN
**LEXINGTON AVENUE NE AT
 131ST AVENUE NE
 INTERSECTION IMPROVEMENTS**

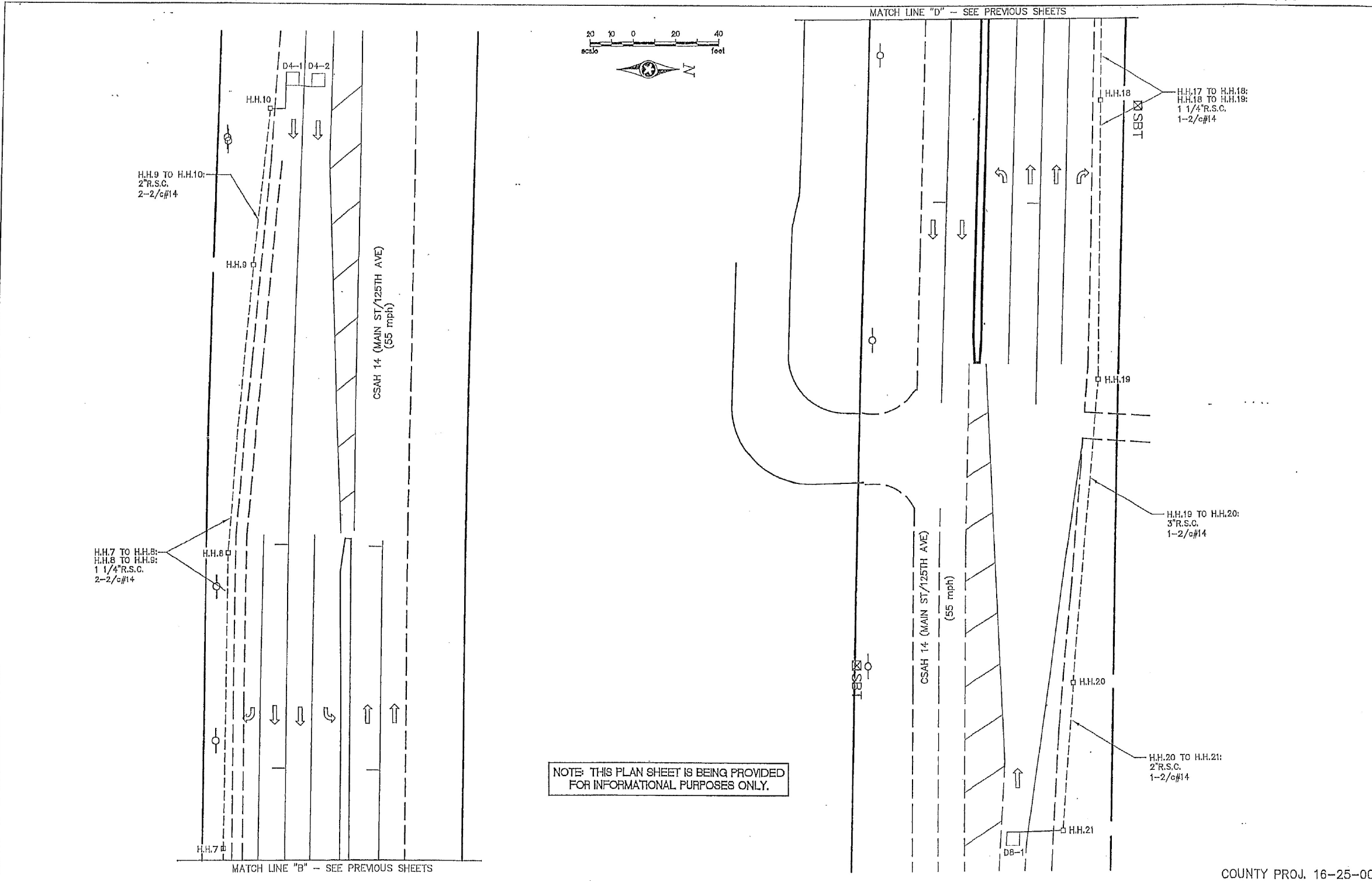
**TRAFFIC CONTROL
 SIGNAL
 SYSTEM**

FOR INFORMATION ONLY

REVISIONS	
NO.	DATE DESCRIPTION

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COUNTY PROJ. 16-25-00

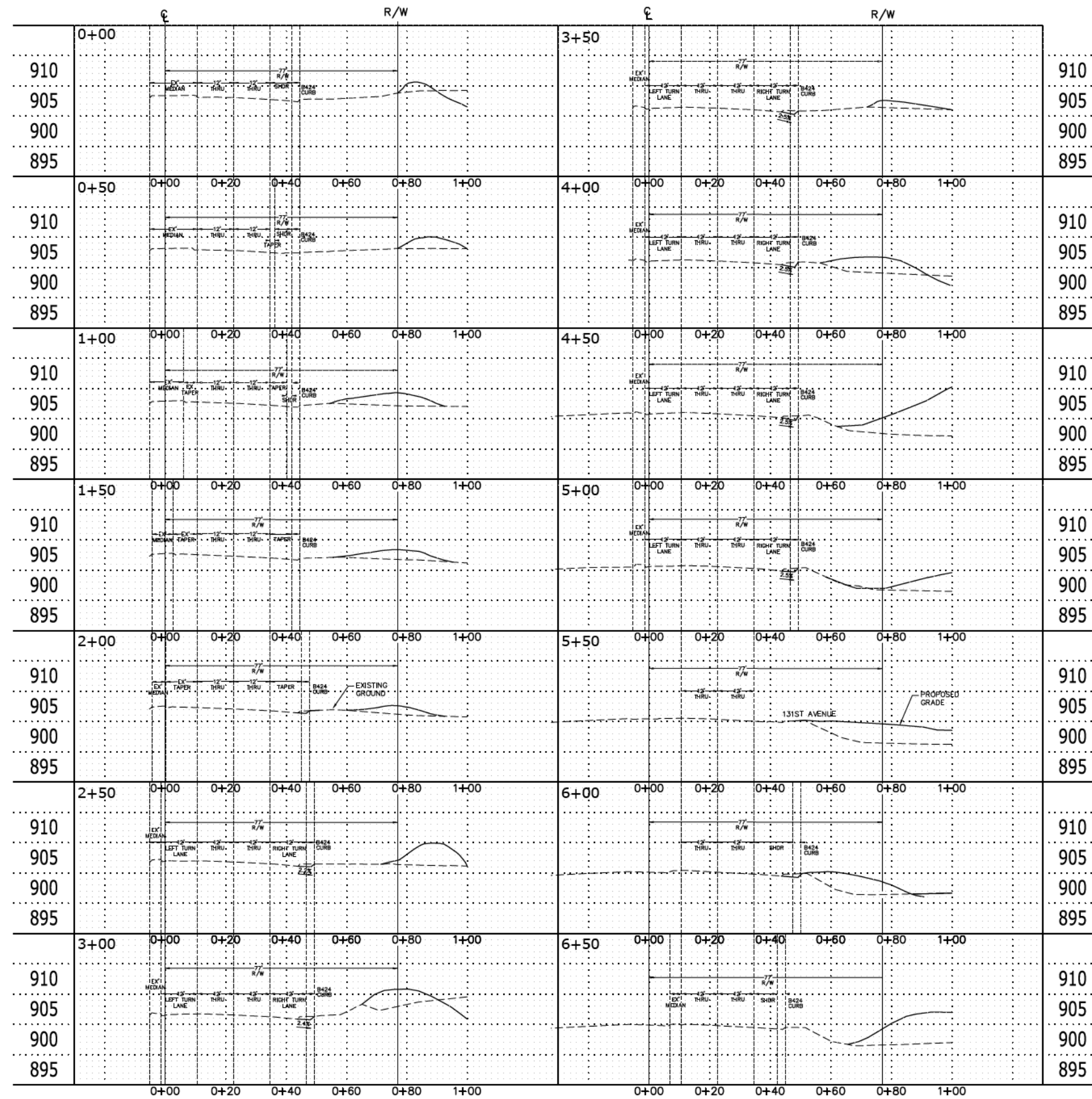
CITY OF BLAINE, MN
**LEXINGTON AVENUE NE AT
 131ST AVENUE NE
 INTERSECTION IMPROVEMENTS**

**TRAFFIC CONTROL
 SIGNAL
 SYSTEM**

FOR INFORMATION ONLY

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WSB PROJECT NO.:
019869-000

SCALE: AS SHOWN DESIGN BY:

PLAN BY: CHECK BY:

REVISIONS	
NO.	DESCRIPTION

CITY OF BLAINE, MN
**LEXINGTON AVENUE NE AT
131ST AVENUE NE
INTERSECTION IMPROVEMENTS**

**CSAH 17
CROSS SECTIONS**

Certificate Of Completion

Envelope Id: 2D351576CE47427CA1DEB3406867E768	Status: Completed
Subject: Chris Brown - ROW Permit Application	
Source Envelope:	
Document Pages: 75	Signatures: 2
Certificate Pages: 4	Initials: 1
AutoNav: Enabled	Envelope Originator:
Envelopeld Stamping: Enabled	Highway Permits
Time Zone: (UTC-06:00) Central Time (US & Canada)	Anoka County Government Center
	2100 3rd Avenue
	Anoka, MN 55303
	HighwayPermits@co.anoka.mn.us
	IP Address: 24.220.196.78


Record Tracking

Status: Original	Holder: Highway Permits	Location: DocuSign
5/8/2023 3:23:22 PM	HighwayPermits@co.anoka.mn.us	
Security Appliance Status: Connected	Pool: StateLocal	
Storage Appliance Status: Connected	Pool: Anoka County	Location: DocuSign

Signer Events

Chris Brown
 chris@forestlakecontracting.com
 Security Level:
 DocuSign.email
 ID: 1
 5/8/2023 3:23:24 PM

Signature

DocuSigned by:

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 Signature Adoption: Pre-selected Style
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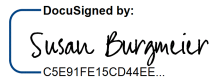
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 Viewed: 5/8/2023 3:23:36 PM
 Signed: 5/8/2023 3:35:30 PM

Electronic Record and Signature Disclosure:

Accepted: 5/8/2023 3:23:36 PM
 ID: 8aca97a2-b06e-4b45-a3be-07a277209fd2

Susan Burgmeier
 Susan.Burgmeier@co.anoka.mn.us
 Associate Traffic Technician
 Anoka County
 Signing Group: Highway Permits
 Security Level: Email, Account Authentication (Optional)

DocuSigned by:

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 Signature Adoption: Pre-selected Style
 Using IP Address: 156.98.106.245

Sent: 5/8/2023 3:35:37 PM
 Viewed: 5/9/2023 8:21:09 AM
 Signed: 5/9/2023 11:19:38 AM

Electronic Record and Signature Disclosure:

Not Offered via DocuSign

In Person Signer Events	Signature	Timestamp
Editor Delivery Events	Status	Timestamp
Agent Delivery Events	Status	Timestamp
Intermediary Delivery Events	Status	Timestamp
Certified Delivery Events	Status	Timestamp
Carbon Copy Events	Status	Timestamp
Witness Events	Signature	Timestamp
Notary Events	Signature	Timestamp
Envelope Summary Events	Status	Timestamps

Envelope Summary Events	Status	Timestamps
Envelope Sent	Hashed/Encrypted	5/8/2023 3:23:24 PM
Envelope Updated	Security Checked	5/8/2023 3:35:30 PM
Certified Delivered	Security Checked	5/9/2023 8:21:09 AM
Envelope Updated	Security Checked	5/9/2023 11:19:38 AM
Signing Complete	Security Checked	5/9/2023 11:19:38 AM
Completed	Security Checked	5/9/2023 11:19:38 AM

Payment Events	Status	Timestamps
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Electronic Record and Signature Disclosure

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If you decide to receive notices, disclosures and documents from us electronically, you may change your mind and tell us that going forward you want to receive documents only in paper format. Please note, processing time will be slowed down dramatically as we will be required to print and send the document through the mail and await your return of the documents. The process to change the method of receipt is described below.

All notices and disclosures will be sent to you electronically

Upon your acceptance to receive electronic notifications, all required notices, disclosures, authorizations, acknowledgements, and other documents that are required to be provided or made available to you during the course of our relationship with you will be provided electronically through the DocuSign system. All of the required documents will be provided to you at the address that you have given us.

How to contact Anoka County:

You may change your preferred method of contact whether electronically, or paper copies, or change your email address. You may also request paper copies of certain information from us, or withdraw your prior consent to receive documents. Please use the contact information below for your request and in the body of your correspondence, identify your desired action. If you are

changing an email address, please include your prior email address as well as your new address. If you no longer wish to receive future documents in electronic format, please include that request in the body of your email.

Email: helpdesk@co.anoka.mn.us

Phone: (763)-324-4110

Address: Anoka County Government Center
Attn: Information Technology, #300
2100 3rd Avenue
Anoka, MN 55303

Required hardware and software

The minimum system requirements for using the DocuSign system may change over time. The current system requirements are found here: <https://support.docusign.com/guides/signer-guide-signing-system-requirements>.

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- You can access and read this Electronic Record and Signature Disclosure; and
- You can print this Electronic Record and Signature Disclosure, or save or send this Electronic Record and Disclosure to a location where you can print it, for future reference and access; and
- Until or unless you notify Anoka County as described above, you consent to receive exclusively through electronic means all notices, disclosures, authorizations, acknowledgements, and other documents that are required to be provided or made available to you by Anoka County during the course of your relationship with Anoka County.