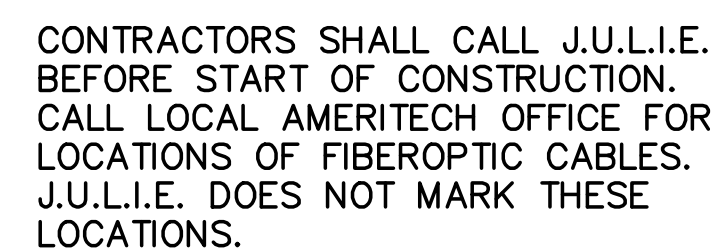


SWC IL 47 & GALENA BLVD
SUGAR GROVE, ILLINOIS

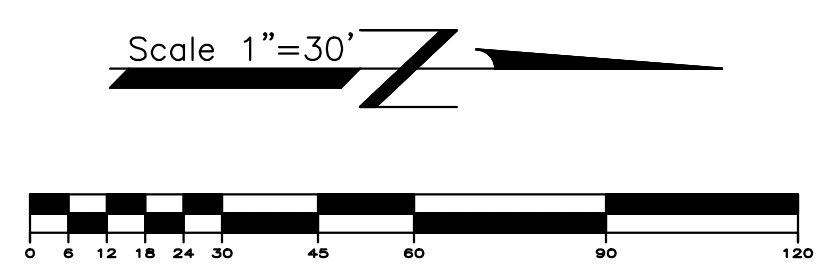
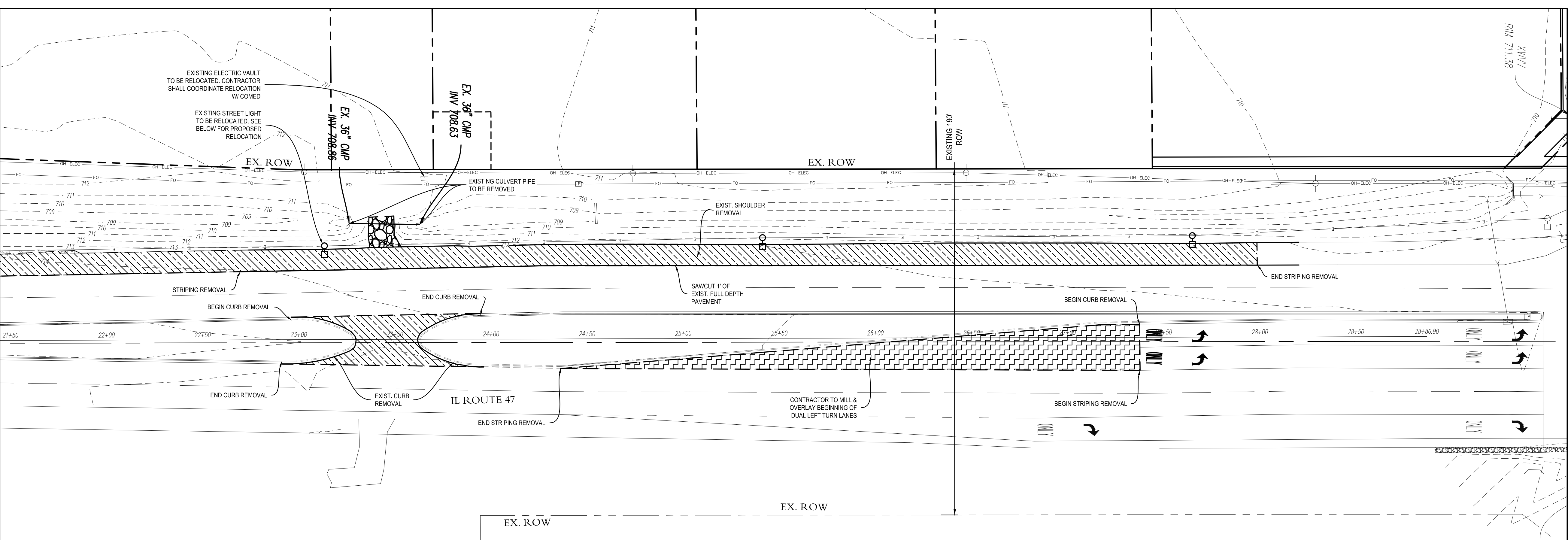
SDP SUGAR GROVE LLC
2803 BUTTERFIELD ROAD, SUITE 300
OAK BROOK, ILLINOIS



DATE:	6/17/21
FILE:	20-036 R01
JOB NO:	20-036

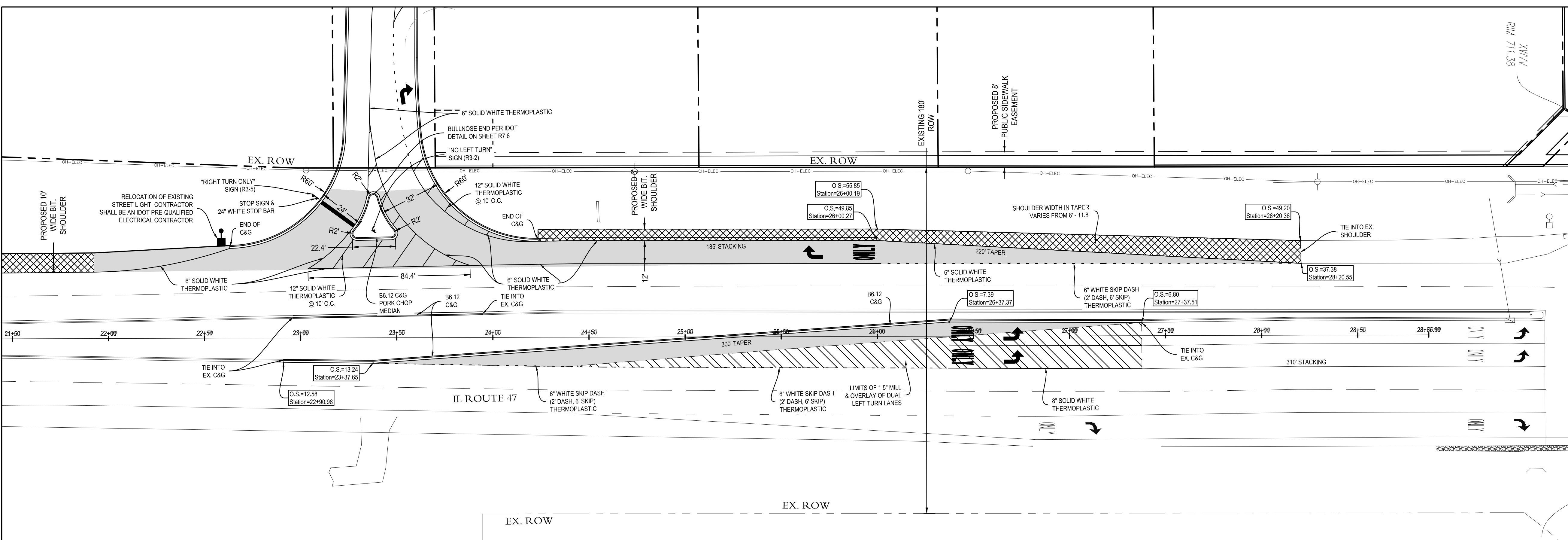
L ROUTE 47 IMPROVEMENTS SUGAR GROVE, ILLINOIS

MATCH LINE SEE SHEET R1.2 - STA. 22+50



LEGEND	
PAVEMENT REMOVAL - FULL DEPTH	
PROPOSED FULL DEPTH BIT. PAVEMENT (PER DETAIL 7/R7.2)	
PROPOSED FULL DEPTH BIT. SHOULDER (PER DETAIL 7/R7.2)	
1.5" SURFACE MILL	
1.5" SURFACE OVERLAY	

MATCH LINE SEE SHEET R1.2 - STA. 22+50



REVISIONS

NO.	DATE	DESCRIPTION
2	5/2/22	PER ONSITE ROADWAY CHANGES
1	11/8/21	PER IDOT COMMENTS

EXISTING CONDITIONS & PROPOSED GEOMETRIC PLAN

IL ROUTE 47 IMPROVEMENTS
SWC IL 47 & GALENA BLVD
SUGAR GROVE, ILLINOIS

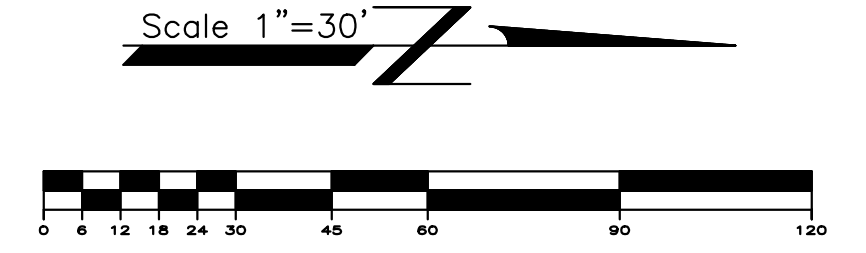
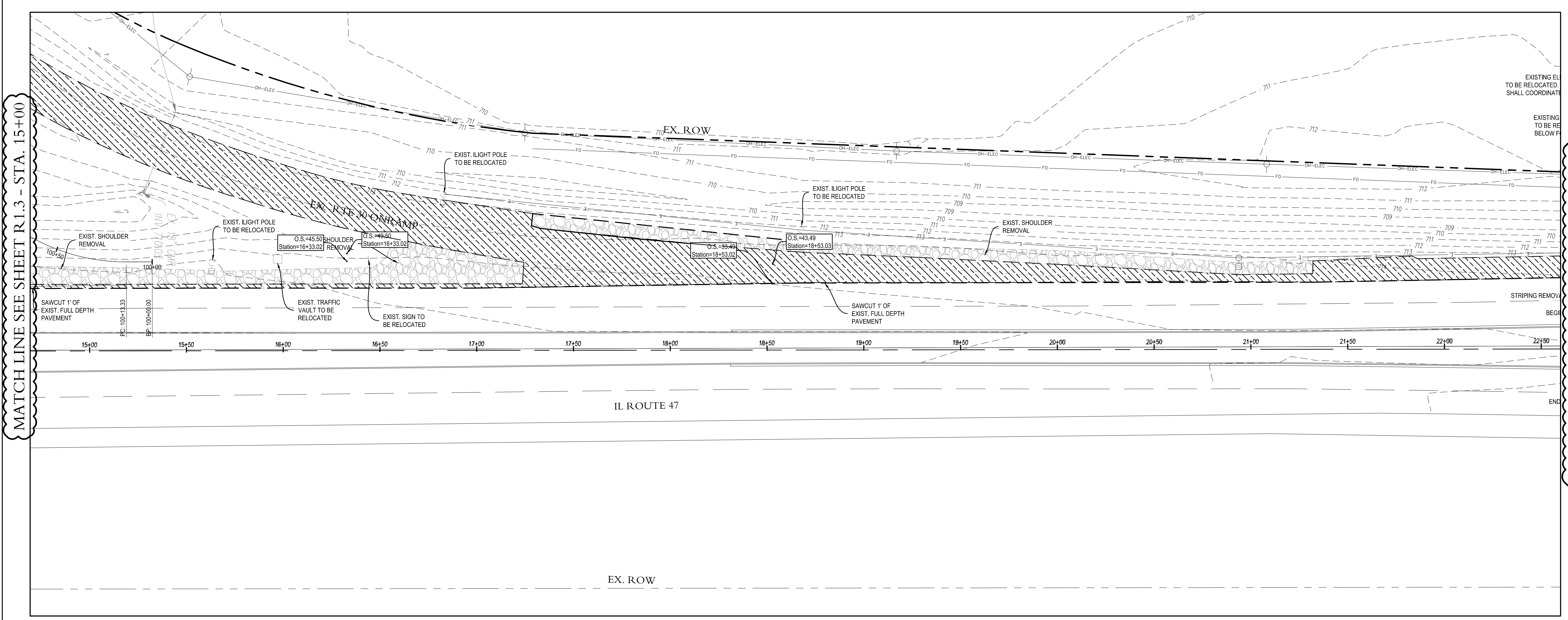
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- Civil Engineers
- Surveyors
- Land Planners

DATE:	8/11/21
FILE:	20-036 R10
JOB NO:	20-036

R1.1
SHEET NO.

IL ROUTE 47 IMPROVEMENTS SUGAR GROVE, ILLINOIS

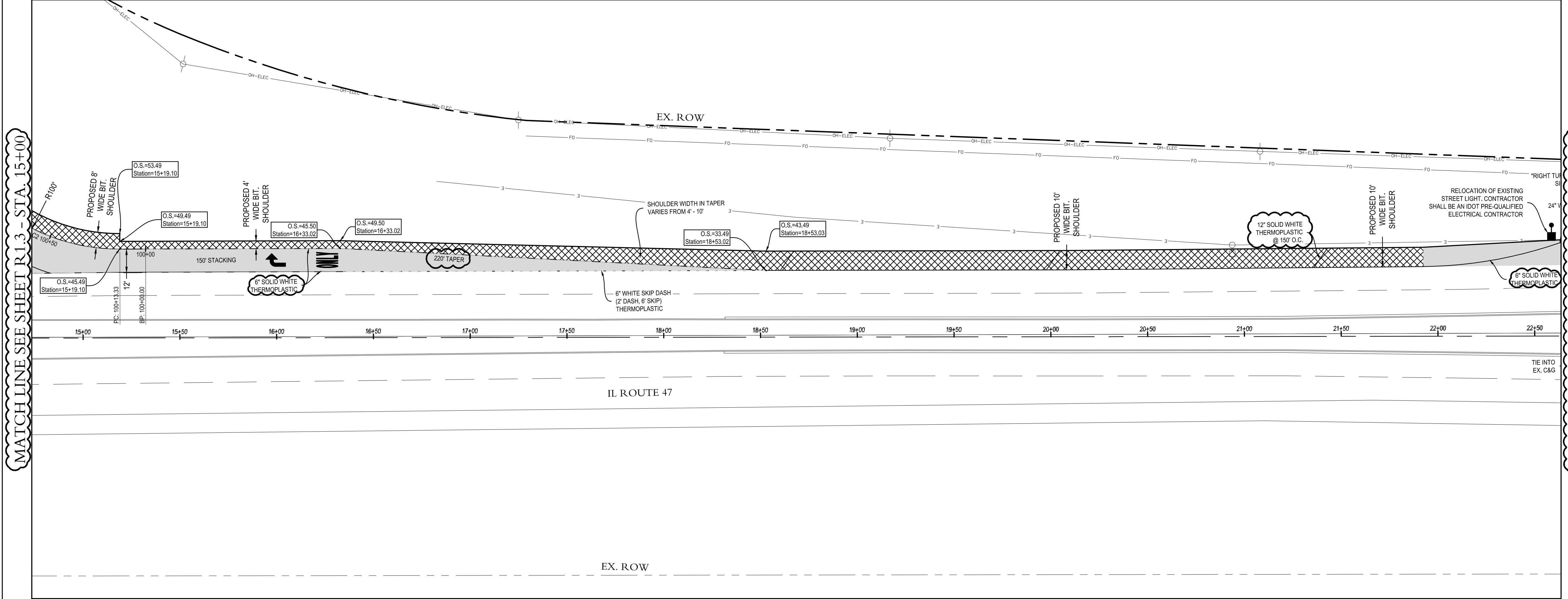


LEGEND

PAVEMENT REMOVAL - FULL DEPTH

PROPOSED FULL DEPTH BIT. PAVEMENT (PER DETAIL 7/R7.2)

PROPOSED FULL DEPTH BIT. SHOULDER (PER DETAIL 7/R7.2)



REVISIONS					
NO.	DATE	DESCRIPTION	NO.	DATE	DESCRIPTION
1	11/8/21	PER IDOT COMMENTS			

EXISTING CONDITIONS & PROPOSED GEOMETRIC PLAN

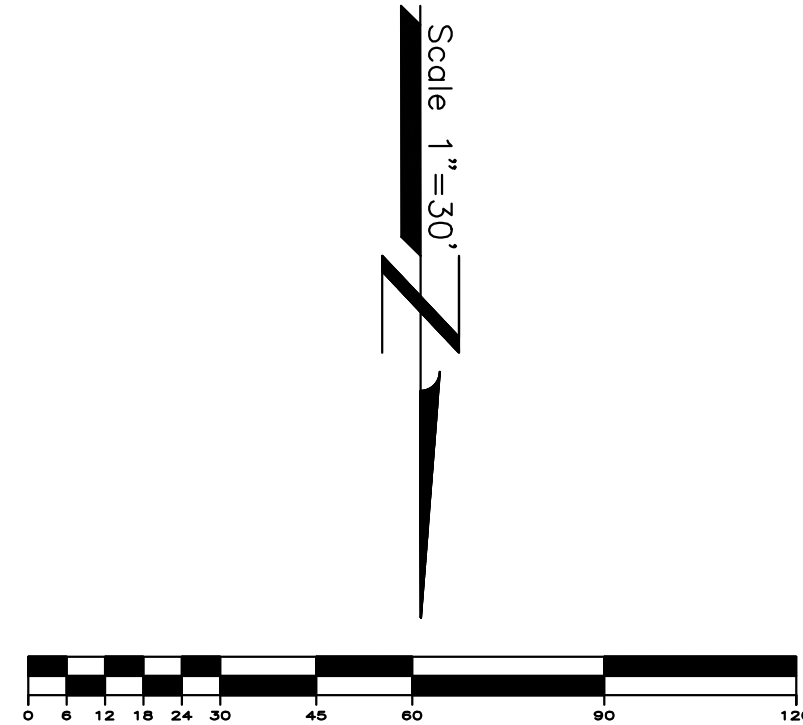
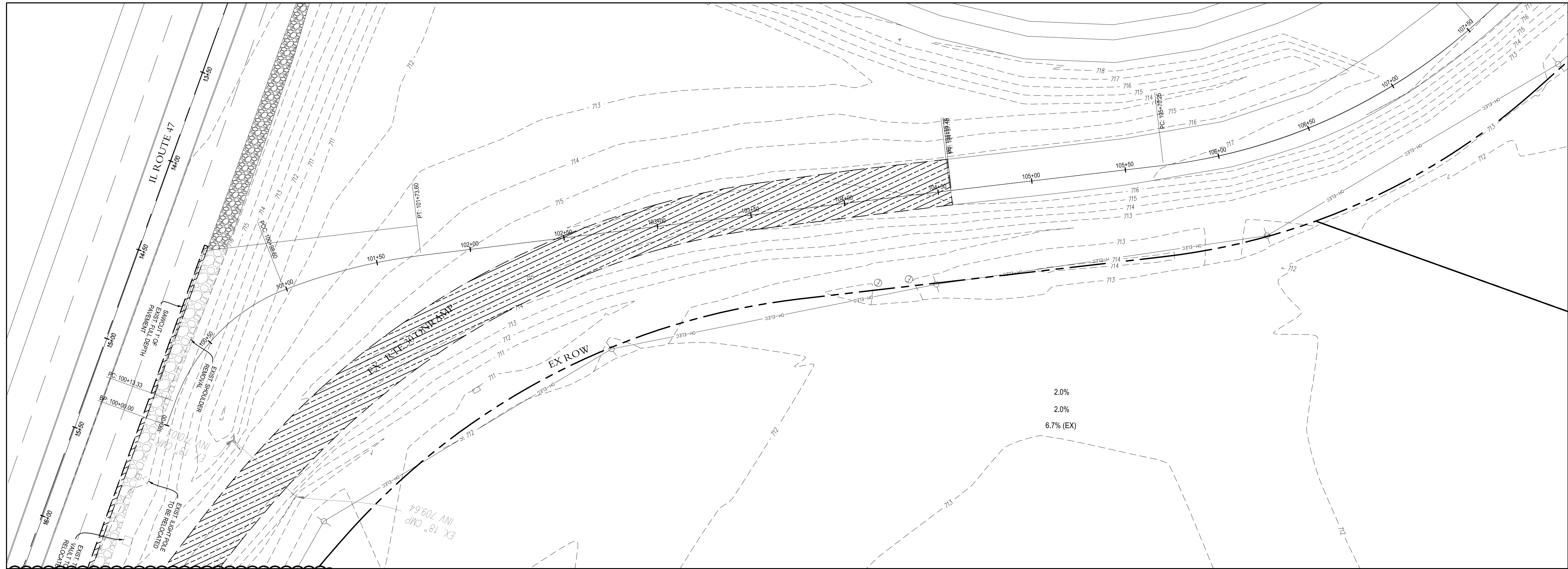
IL ROUTE 47 IMPROVEMENTS
SWC IL 47 & GALENA BLVD
SUGAR GROVE, ILLINOIS

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DATE: 8/11/21
FILE: 20-036 R10
JOB NO: 20-036

R1.2
SHEET NO.

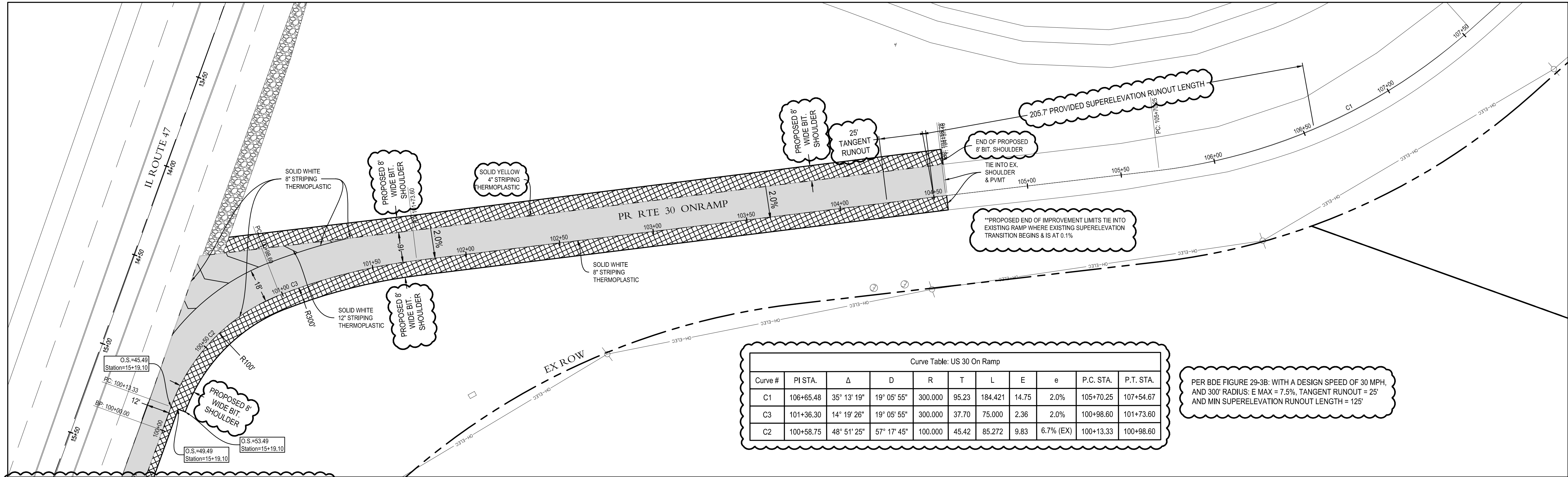
IL ROUTE 47 IMPROVEMENTS SUGAR GROVE, ILLINOIS



LEGEND

- PAVEMENT REMOVAL - FULL DEPTH
- PROPOSED FULL DEPTH BIT. PAVEMENT
(PER DETAIL 7/R7.2)
- PROPOSED FULL DEPTH BIT. SHOULDER
(PER DETAIL 7/R7.2)

MATCH LINE SEE SHEET R1.2 - STA. 15+00



Curve Table: US 30 On Ramp											
Curve #	PI STA.	Δ	D	R	T	L	E	e	P.C. STA.	P.T. STA.	
C1	106+65.48	35° 13' 19"	19° 05' 55"	300.000	95.23	184.421	14.75	2.0%	105+70.25	107+54.67	
C3	101+36.30	14° 19' 26"	19° 05' 55"	300.000	37.70	75.000	2.36	2.0%	100+98.60	101+73.60	
C2	100+58.75	48° 51' 25"	57° 17' 45"	100.000	45.42	85.272	9.83	6.7% (EX)	100+13.33	100+98.60	

PER RDE FIGURE 29-38: WITH A DESIGN SPEED OF 30 MPH, AND 300' RADIUS, E MAX = 7.5%, TANGENT RUNOUT = 25' AND MIN SUPERELEVATION RUNOUT LENGTH = 125'

MATCH LINE SEE SHEET R1.2 - STA. 15+00

REVISIONS					
NO.	DATE	DESCRIPTION	NO.	DATE	DESCRIPTION
1	11/8/21	PER IDOT COMMENTS			

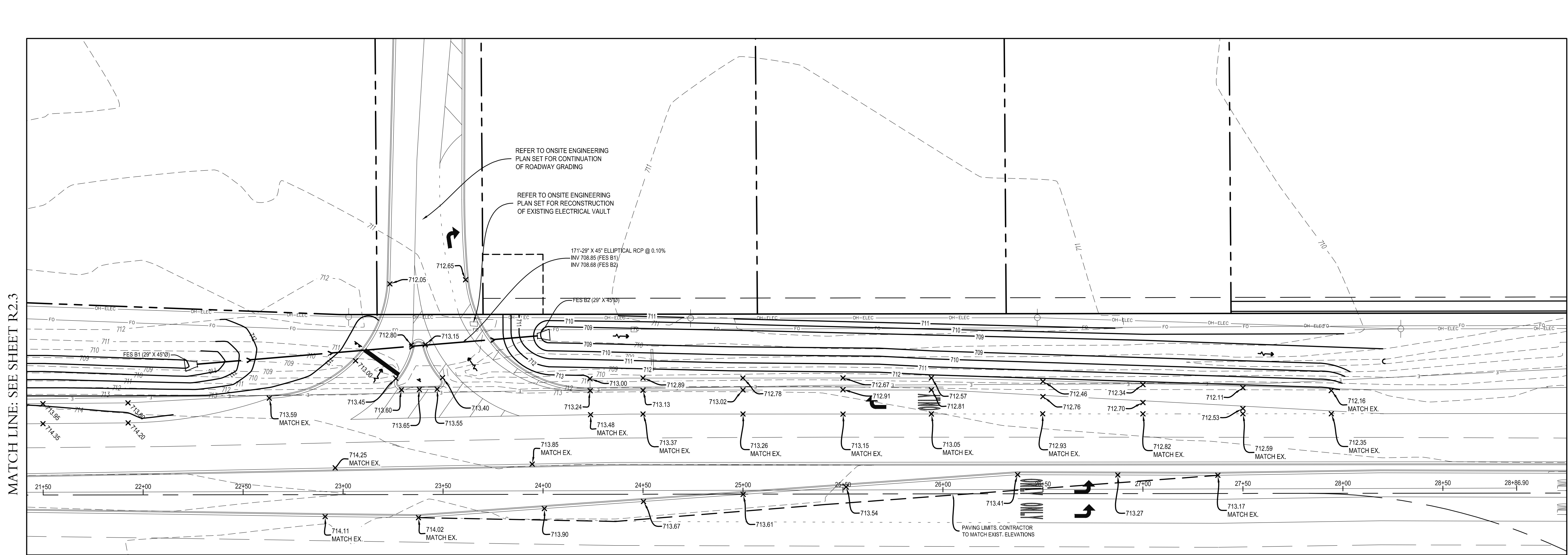
EXISTING CONDITIONS & PROPOSED GEOMETRIC PLAN

IL ROUTE 47 IMPROVEMENTS
SWC IL 47 & GALENA BLVD
SUGAR GROVE, ILLINOIS

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DATE: 8/11/21
FILE: 20-036 R10
JOB NO: 20-036

R1.3
SHEET NO.



LEGEND

	EXISTING	PROPOSED
PAVEMENT GRADE	+ 475.00	+ 475.00
WALK GRADE	+ 475.00 W	+ 475.00 W
BACK OF CURB GRADE	+ 475.00 C	+ 475.00 C
GROUND GRADE	+ 475.00 G	+ 475.00 G
RIM GRADE	+ 475.00 RIM	+ 475.00 RIM
CONTOURS	— 475 —	— 475 —
STORM SEWER	— > —	— > —
SANITARY SEWER	— > —	— > —
WATERMAIN	— 8" D.I.W.M. —	— 8" D.I.W.M. —
ELECTRIC	— E —	— E —
TELEPHONE	— T —	— T —
GAS	— G —	— G —
STORM MANHOLE	⊙	⊙
FLARED END SECTION	⊙	⊙
SANITARY MANHOLE	⊙	⊙
VALVE VAULT / B-BOX	⊙	⊙
FIRE HYDRANT	⊙	⊙
LIGHT POLES	⊙	⊙
TRANSFORMER	⊙	⊙
EMERGENCY OVERFLOW	→	→
FLOW DIRECTION	→	→
RIDGELINES	— — — — —	— — — — —
REVERSE CURB	~ ~ ~ ~ ~	~ ~ ~ ~ ~

ALL PROPOSED GRADES ARE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED. SEE BELOW FOR TOP OF CURB ELEVATION CORRELATION.

T/CURB = (P.V.M.T. GRADE) + 0.42 (NORMAL PITCH CURB)
T/CURB = (P.V.M.T. GRADE) + 0.54 (REVERSE PITCH CURB)

GRADING NOTES

- GENERAL CONTRACTOR SHALL VERIFY EXISTING CONTOURS AND NOTIFY ENGINEER OF ANY DISCREPANCIES.
- THE GENERAL CONTRACTOR SHALL SPREAD SPOILS FROM UTILITY CONTRACTORS WORK TO BALANCE THE SITE TO THE EXTENT POSSIBLE.
- EROSION CONTROL MEASURES INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING: SILT FABRIC SHALL BE PLACED ON EACH SANITARY STRUCTURE UNTIL CONSTRUCTION IS COMPLETED. FABRIC SHALL OVERLAP SANITARY MANHOLE OPENING A MINIMUM OF ONE (1) FOOT ON EACH SIDE WITH THE SOLID GRATE PLACED ON TOP OF FABRIC TO PREVENT SILT FROM ENTERING SANITARY SYSTEM. SILT FENCE AROUND PERIMETER SHALL REMAIN IN PLACE AND BE MAINTAINED UNTIL CONSTRUCTION IS COMPLETED. ALL INLET STRUCTURES SHALL BE PROTECTED WITH INLET BASKETS.
- THE GENERAL CONTRACTOR IS RESPONSIBLE FOR EROSION CONTROL MEASURES. CONTRACTOR SHALL INSTALL EROSION CONTROL MEASURES PRIOR TO THE START OF CONSTRUCTION AND MAINTAIN SUCH MEASURES UNTIL GRADING IS COMPLETE. PARKING LOT IS PAVED AND VEGETATION HAS BEEN ESTABLISHED. IF THERE IS NO GENERAL CONTRACTOR, IT WILL THEN BE THE RESPONSIBILITY OF THE GRADING CONTRACTOR TO INSTALL AND MAINTAIN EROSION CONTROL MEASURES.
- THE CONTRACTOR RESPONSIBLE FOR THE INSTALLATION OF THE EROSION CONTROL DEVICES SHALL MAINTAIN ALL STORM WATER POLLUTION DEVICES THROUGHOUT CONSTRUCTION AND UNTIL ALL UNPAVED OR NON BUILDING AREAS HAVE A UNIFORM PERENNIAL VEGETATIVE COVER WITH A DENSITY OF 70 PERCENT OR GREATER. MAINTENANCE INCLUDES WEEKLY INSPECTIONS OR AN INSPECTION FOLLOWING A RAINFALL OF 1/2 INCH IN A 24-HOUR PERIOD. THE CONTRACTOR MUST SUBMIT A COPY OF THE INSPECTION REPORT TO THE OWNER AND ENGINEER AT THE END OF EACH MONTH AND KEEP A COPY OF THE REPORT ON THE CONSTRUCTION SITE UNTIL THE REQUIRED VEGETATION COVER IS IN PLACE.
- IF ADDITIONAL EROSION CONTROL MEASURES NOT SHOWN ON THESE DRAWINGS ARE REQUIRED TO STOP OR PREVENT EROSION OR ARE REQUIRED BY ANY AUTHORITY HAVING JURISDICTION, IT SHALL BE THE GENERAL CONTRACTORS RESPONSIBILITY TO INSTALL SUCH DEVICES. THE OWNER OR ENGINEER SHALL BE NOTIFIED OF THE ADDITIONAL WORK AND COST PRIOR TO INSTALLATION.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE OWNER AND ENGINEER, IN WRITING, OF ANY ADDITIONAL SOURCES OF STORM WATER POLLUTION OBSERVED DURING CONSTRUCTION AND THE ADDITIONAL COSTS REQUIRED TO PREVENT ADDITIONAL POLLUTION.
- SEE SOILS REPORTS FOR TESTING REQUIREMENTS. THE FINAL SOILS REPORTS ARE DATED AS FOLLOWS: GEOTECHNICAL ENGINEERING REPORT PREPARED BY _____ DATED _____, 20--.

UTILITY NOTES

- ALL STORM SEWER PIPE SHALL MEET IDOT SPECIFICATIONS (ART. 550.03) FOR SELECTING THE PIPE CLASS. STORM PIPE MUST MEET ASTM C76 STANDARDS.
- PRECAST CONCRETE SECTIONS FOR MANHOLES, CATCH BASINS, INLETS AND VAULTS SHALL MEET ASTM C478.
- EXISTING UTILITIES SHOWN ARE FOR INFORMATION ONLY AND ARE NOT NECESSARILY EXCLUSIVE. CONTRACTOR SHALL VERIFY UTILITIES WHERE POSSIBLE AND NOTIFY ENGINEER OF DISCREPANCIES, EXCEPTIONS, OR OMISSIONS AS SOON AS POSSIBLE.
- NO FILTER FABRIC ALLOWED UNDER FRAMES OR GRATES. ALL STRUCTURES SHALL HAVE INLET FILTERS INSTALLED. ALL INLET PROTECTION SHOULD BE IN ACCORDANCE WITH THE APPROVED STORMWATER POLLUTION PREVENTION PLAN.
- ALL EXISTING DRAIN TILE LOCATED WITHIN THE SITE BOUNDARY SHALL BE REMOVED OR ABANDONED AS NECESSARY. ALL DRAIN TILE ENTERING SITE SHALL BE TIED INTO PROPOSED STORM LINE OR REROUTED TO MAINTAIN EXISTING DRAINAGE PATTERNS. IN PLACES WHEREBY THE PROPOSED WATERMAIN AND EXISTING ACTIVE DRAIN TILE CROSS, THE WATERMAIN SHALL BE INSTALLED WITH CASING 10 FEET ON EITHER SIDE OF CROSSING.
- ALL STORM STRUCTURES LOCATED IN AND ALONG ALL B6.12 CURB AND GUTTER SHALL HAVE CURB FRAME AND GRATES.
- FRAME AND GRATE REQUIREMENTS:
STORM STRUCTURE (PAVEMENT) - NEENAH R-1557 FRAME, R-2657 TYPE G GRATE
STORM STRUCTURE (CURB) - NEENAH R-3281-A TYPE C GRATE
STORM STRUCTURE (GRASS) - NEENAH R-4341-A
SANITARY STRUCTURE - NEENAH R-1713 WITH SOLID LID
EXCEPTIONS TO ABOVE ARE NOTED ON PLANS.

REVISIONS							
NO.	DATE	PER IDOT COMMENTS	DESCRIPTION	NO.	DATE	DESCRIPTION	
1	11/8/21						

IL ROUTE 47 DITCH PROFILE

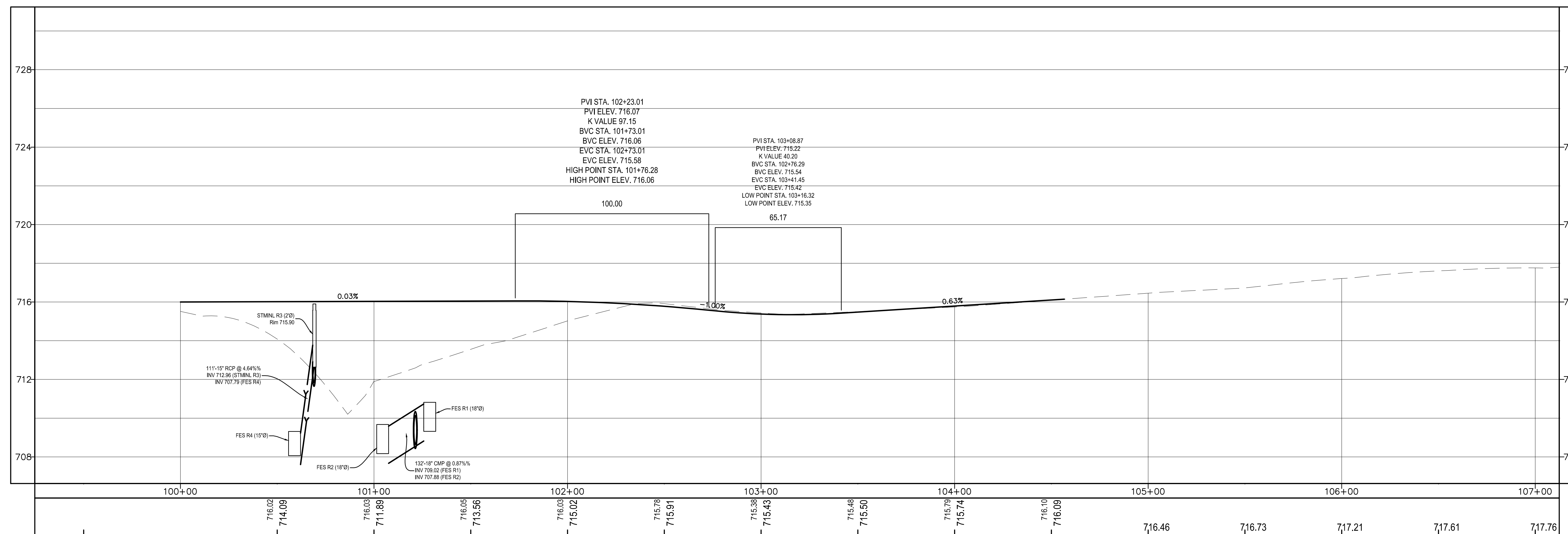
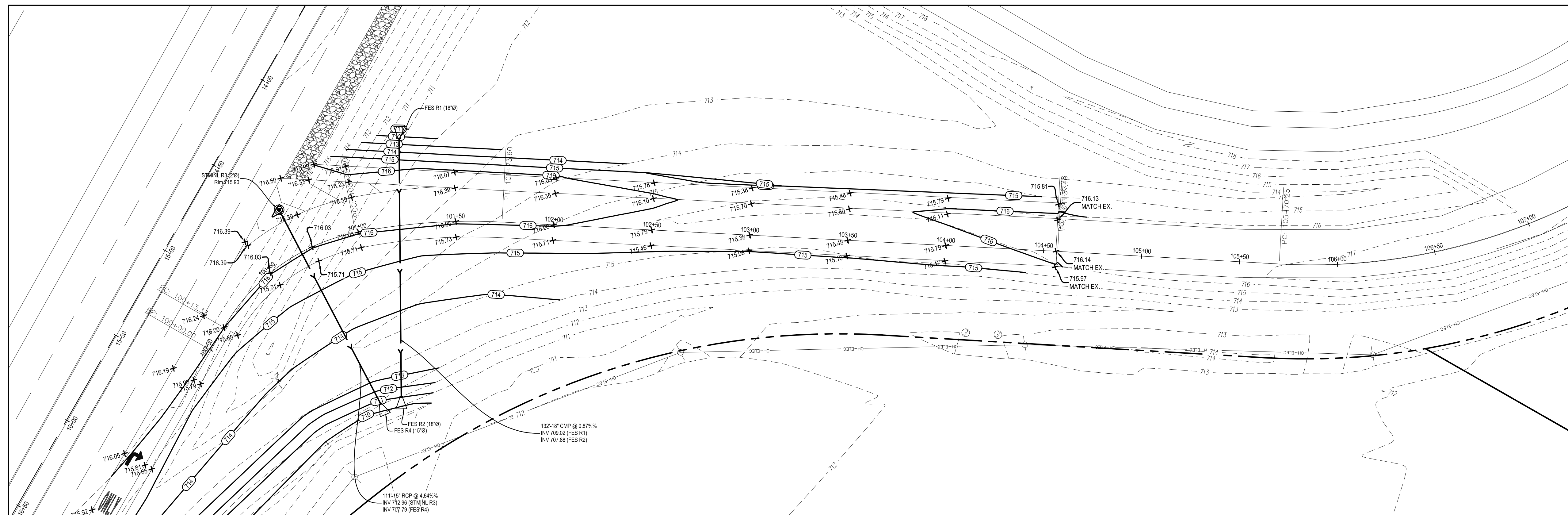
IL ROUTE 47 IMPROVEMENTS SWC IL 47 & GALENA BLVD SUGAR GROVE, ILLINOIS

1" = 3' VERTICAL SCALE
1" = 30' HORIZONTAL SCALE

Craig R. Knoche & Associates • Civil Engineers
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DATE: 6/17/21
FILE: 20-036 R20
JOB NO: 20-036

R2.1
SHEET NO.

[illegible]US 30 ONRAMP GRADING
PLAN & PROFILE

IL ROUTE 47 IMPROVEMENTS

SWC IL 47 & GALENA BLVD SUGAR GROVE, ILLINOIS

1" = 3' VERTICAL SCALE
1" = 30' HORIZONTAL SCALE

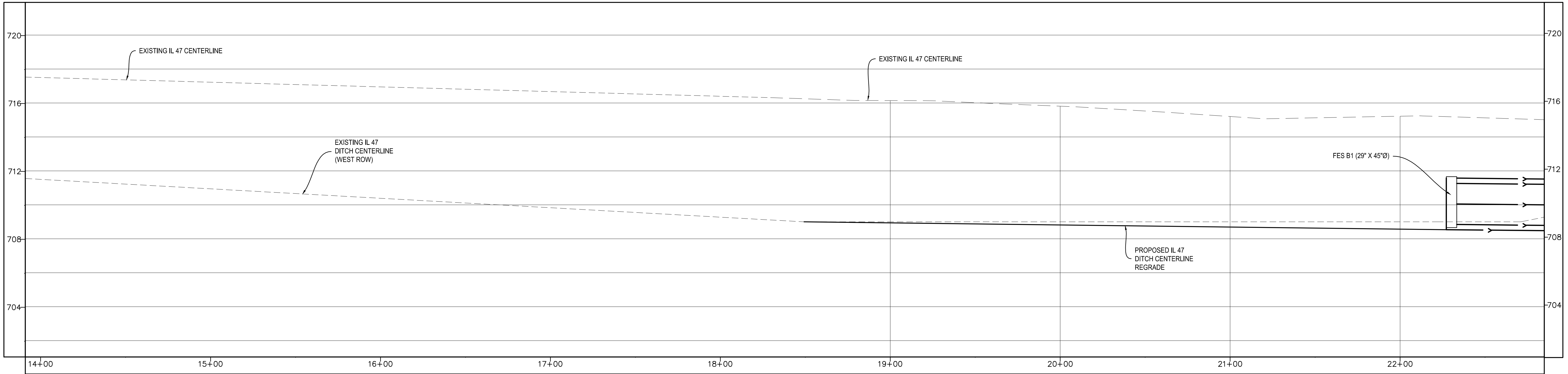
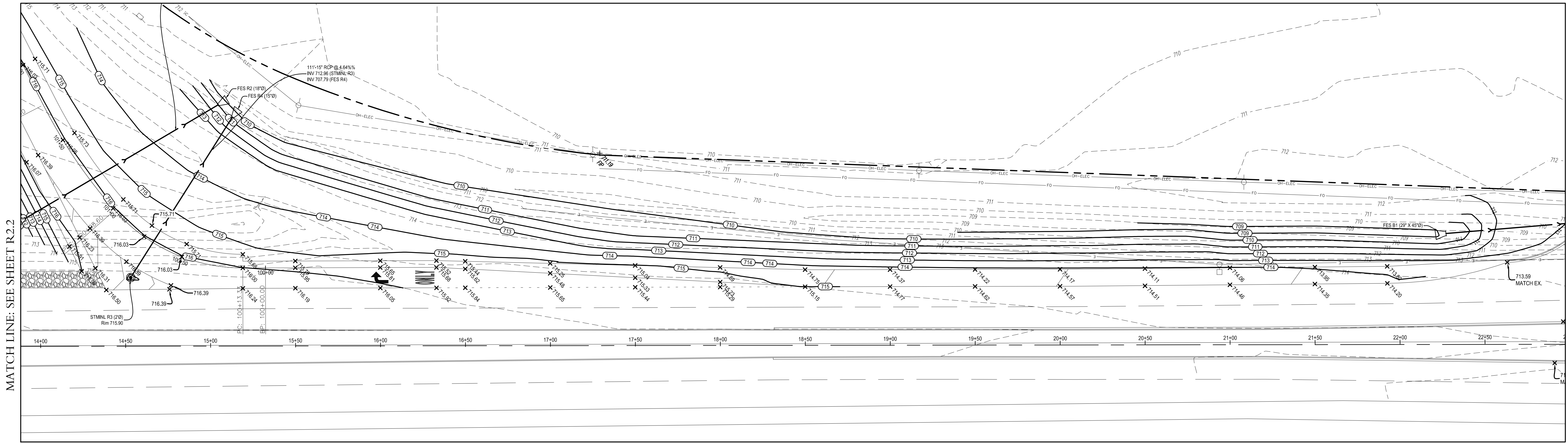
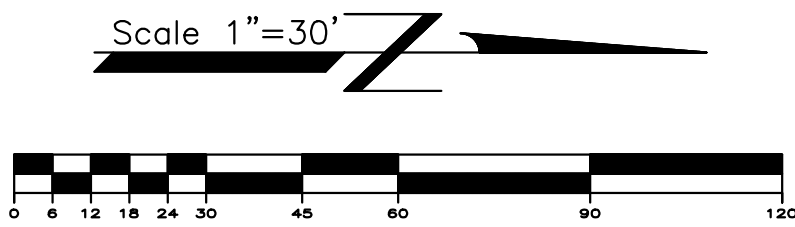
CRAIG R. KNOCH & ASSOCIATES
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DATE:	6/17/21
FILE:	20-036 R20
JOB NO:	20-036

R2.2
SHEET NO.



R E V I S I O N S					
NO.	DATE	DESCRIPTION	NO.	DATE	DESCRIPTION
1	11/8/21	PER IDOT COMMENTS			

IL ROUTE 47
DITCH PROFILE

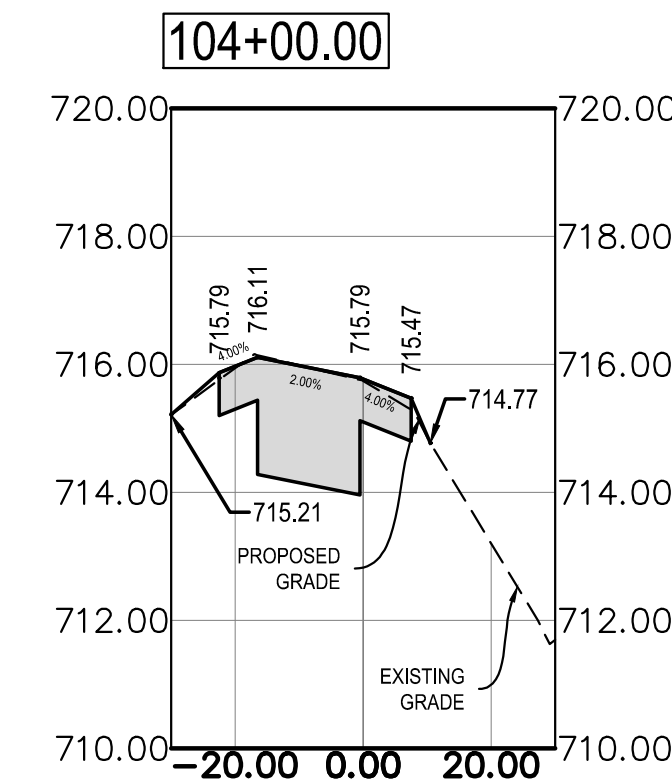
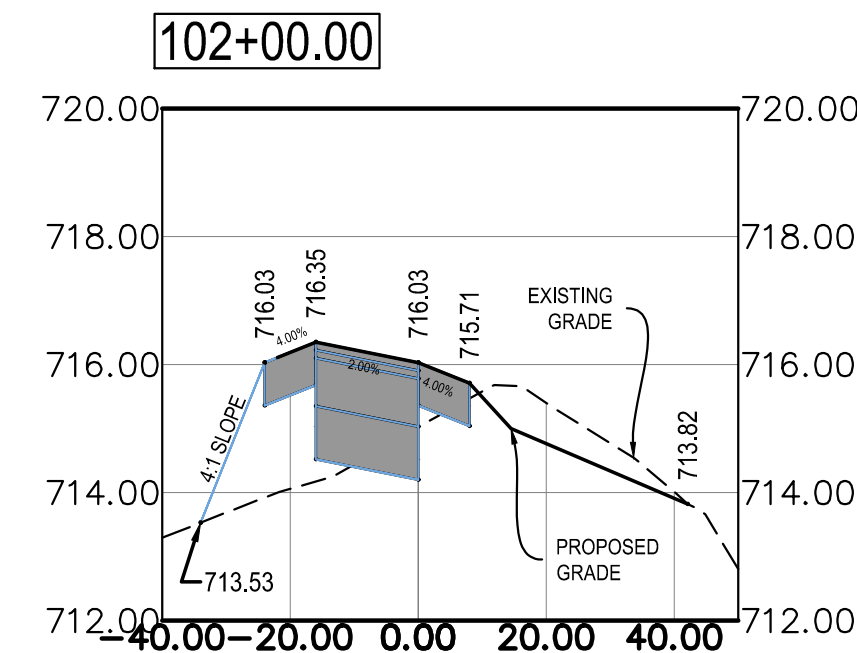
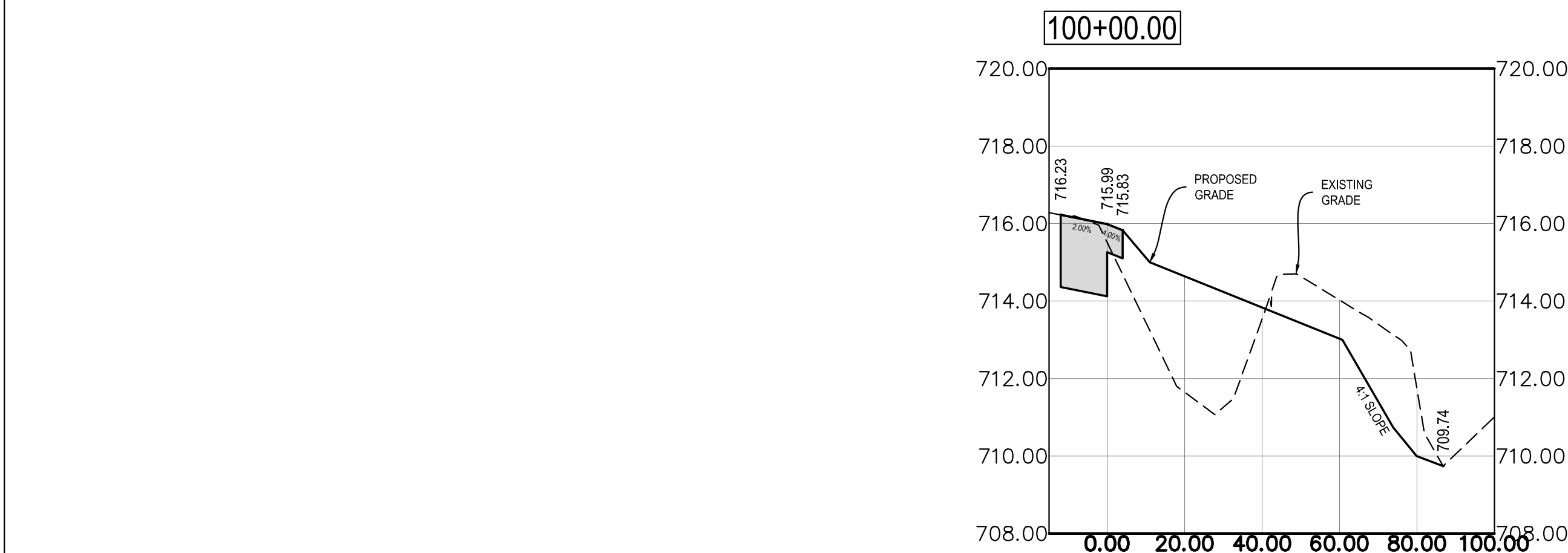
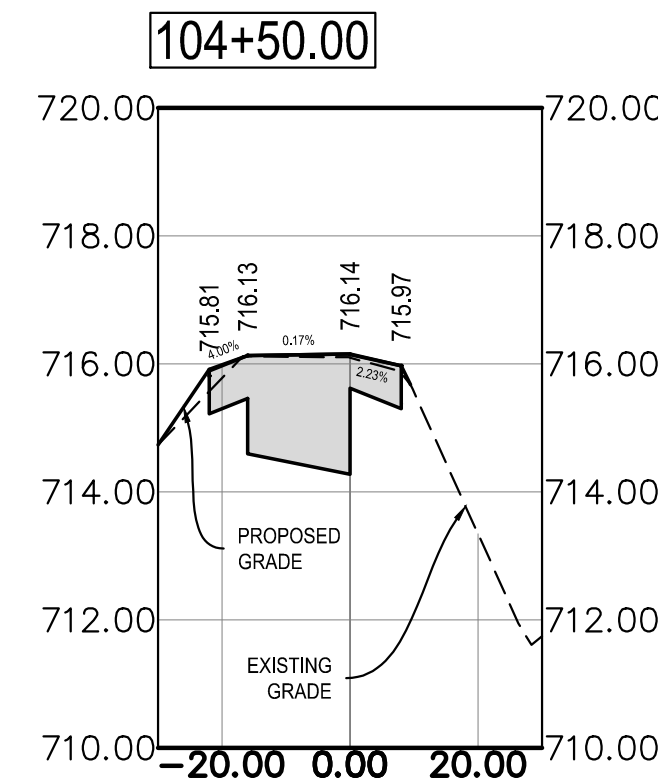
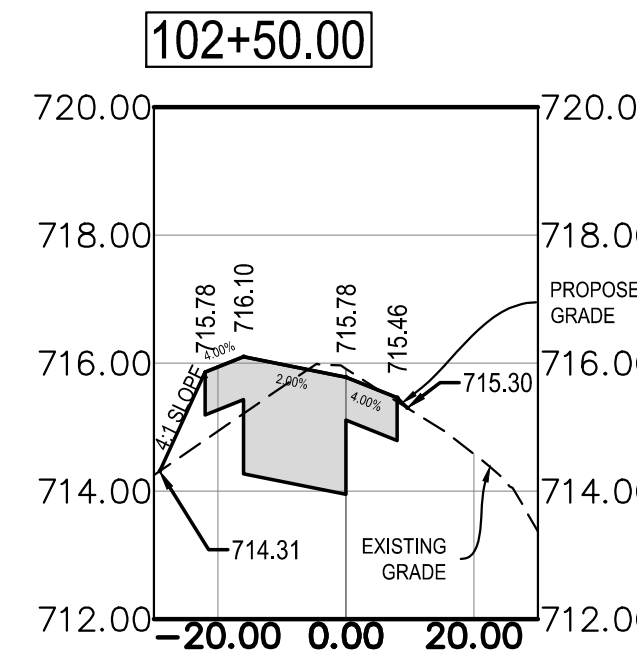
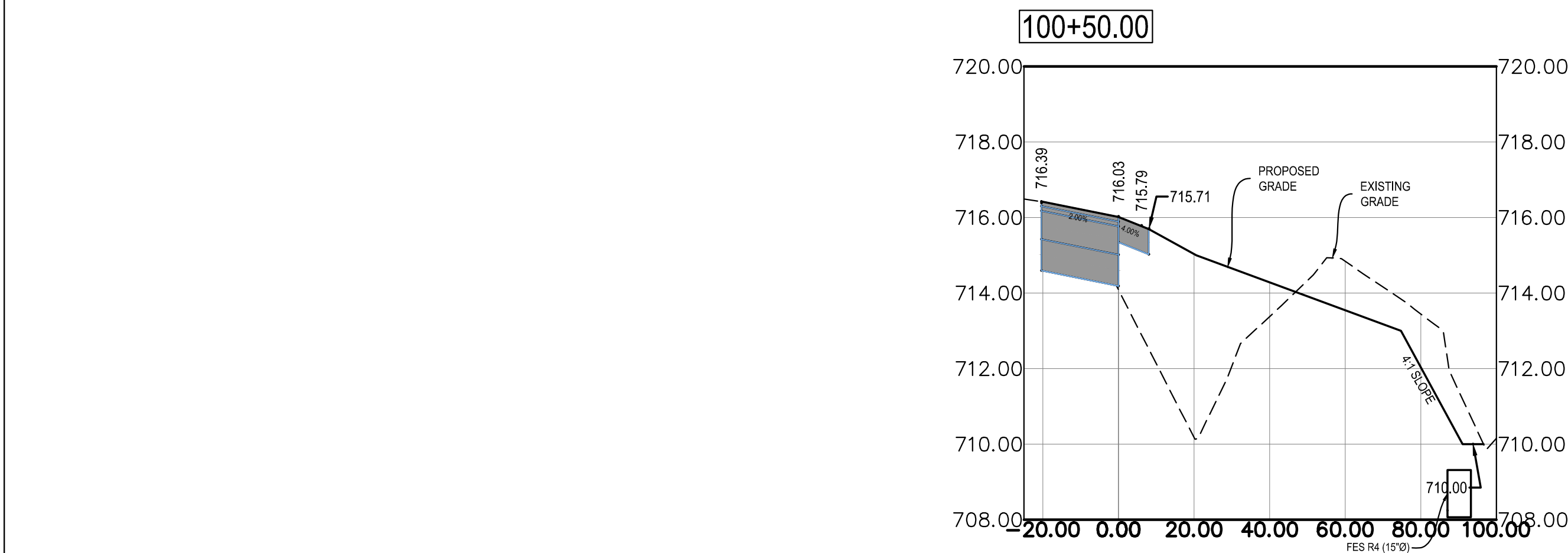
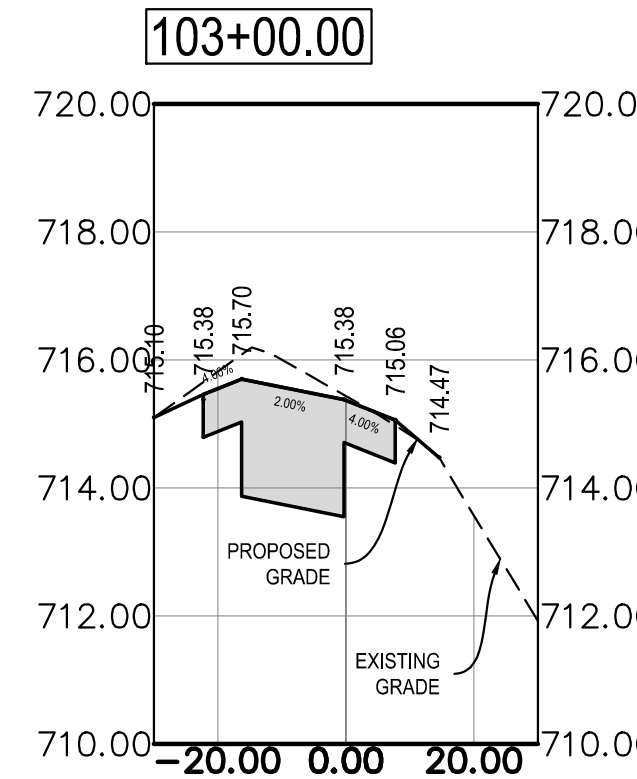
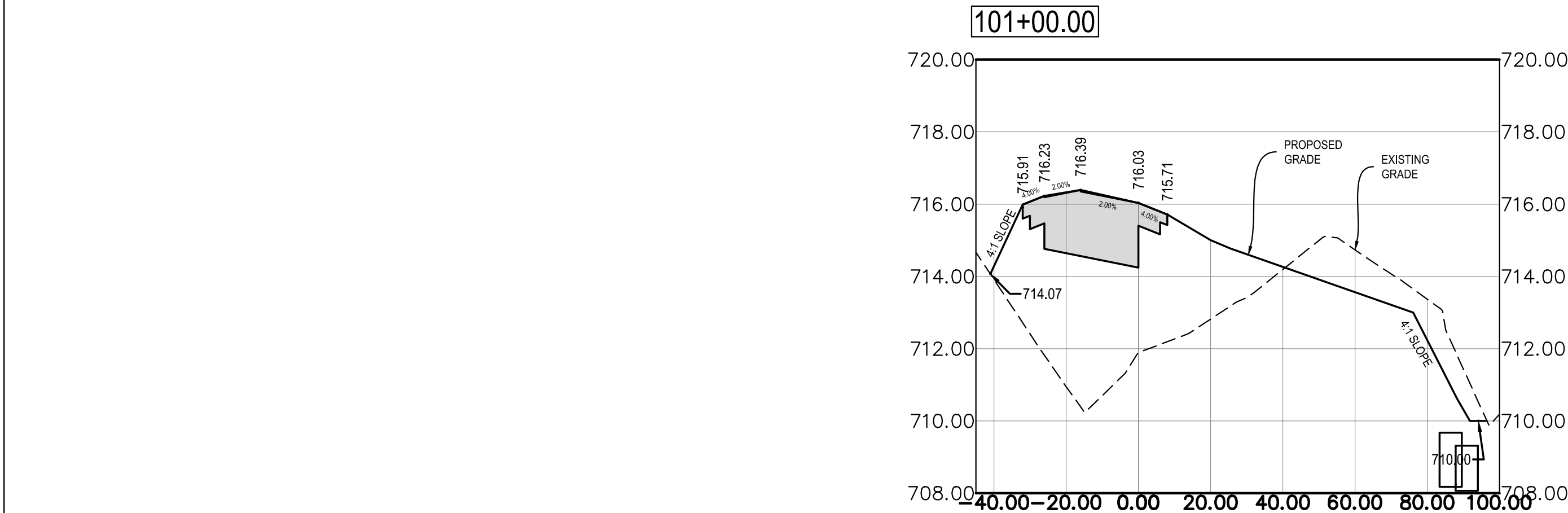
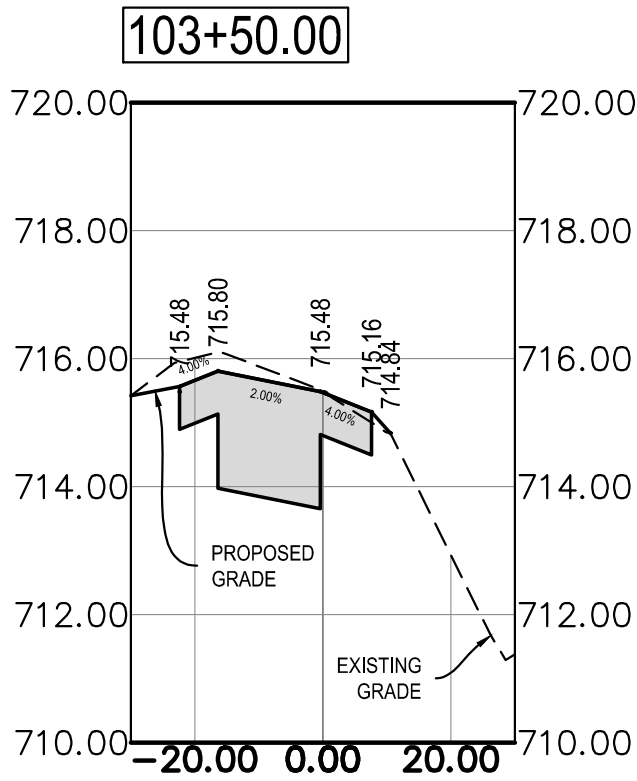
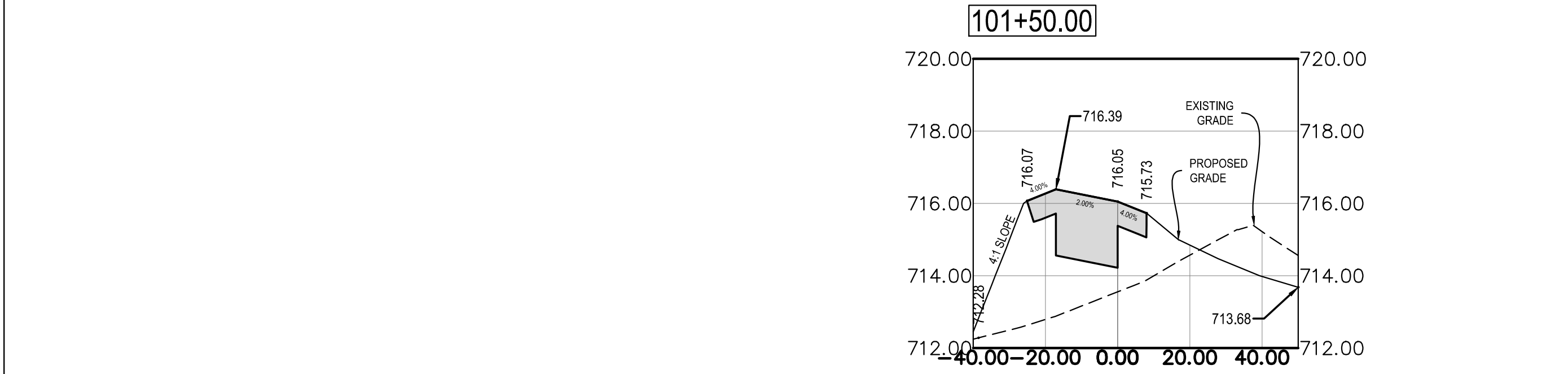
IL ROUTE 47 IMPROVEMENTS
SWC IL 47 & GALENA BLVD
SUGAR GROVE, ILLINOIS

1" = 3' VERTICAL SCALE
1" = 30' HORIZONTAL SCALE

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Surveyors
Land Planners
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DATE: 6/17/21
FILE: 20-036 R20
JOB NO: 20-036

R2.3
SHEET NO.



REVISIONS					
NO.	DATE	DESCRIPTION	NO.	DATE	DESCRIPTION
1	11/8/21	PER IDOT COMMENTS			

US 30 ONRAMP
CROSS SECTIONS

IL ROUTE 47 IMPROVEMENTS
SWC IL 47 & GALENA BLVD
SUGAR GROVE, ILLINOIS

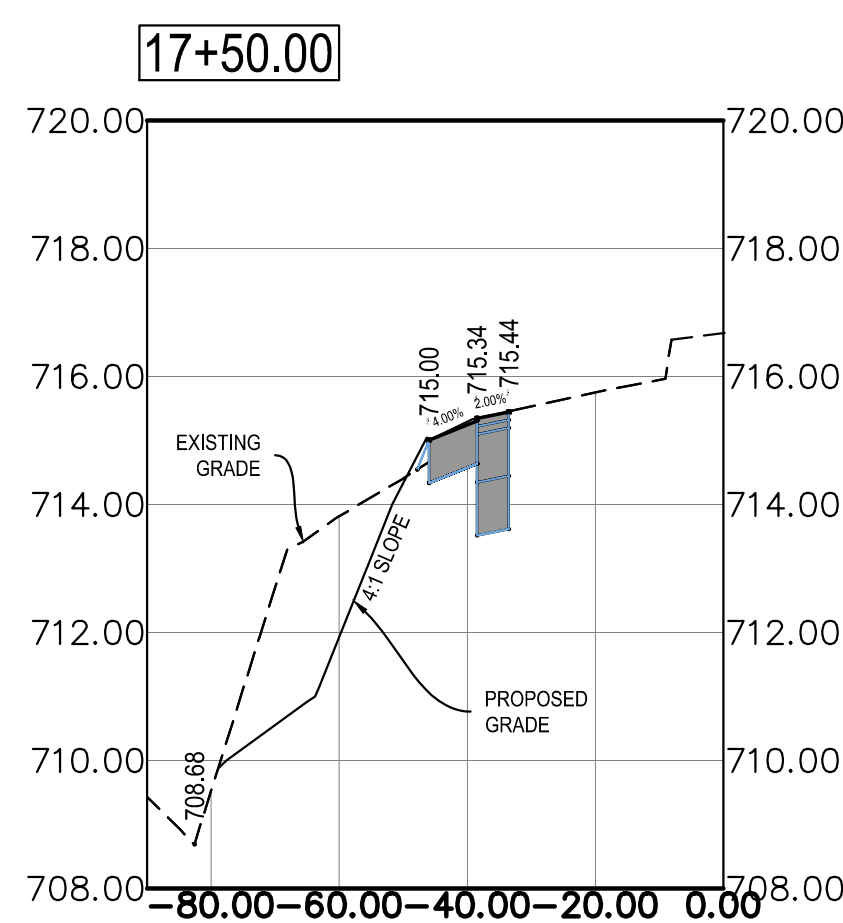
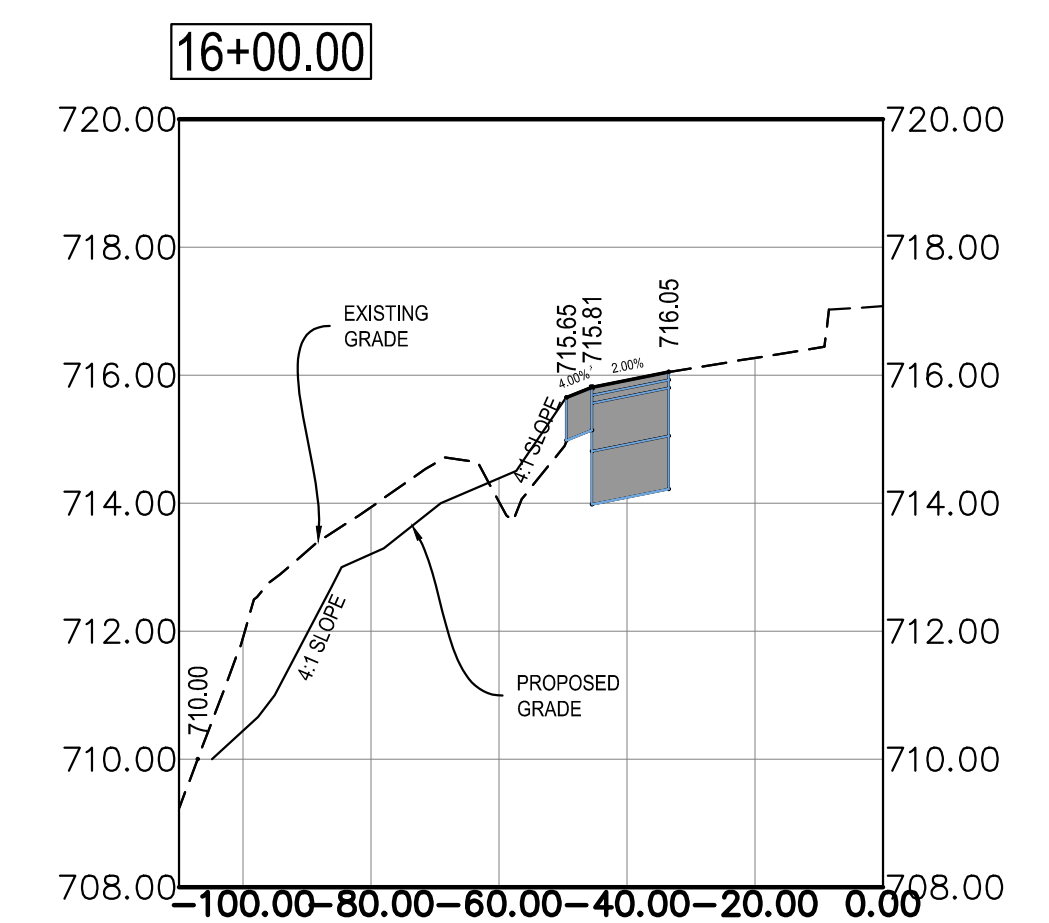
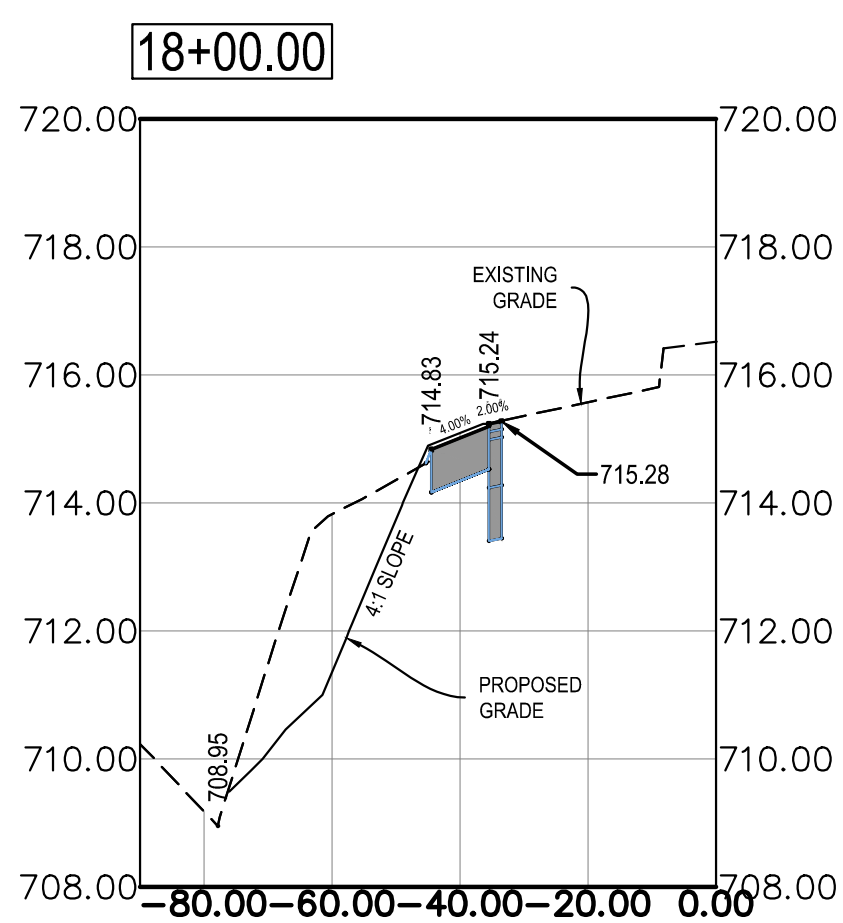
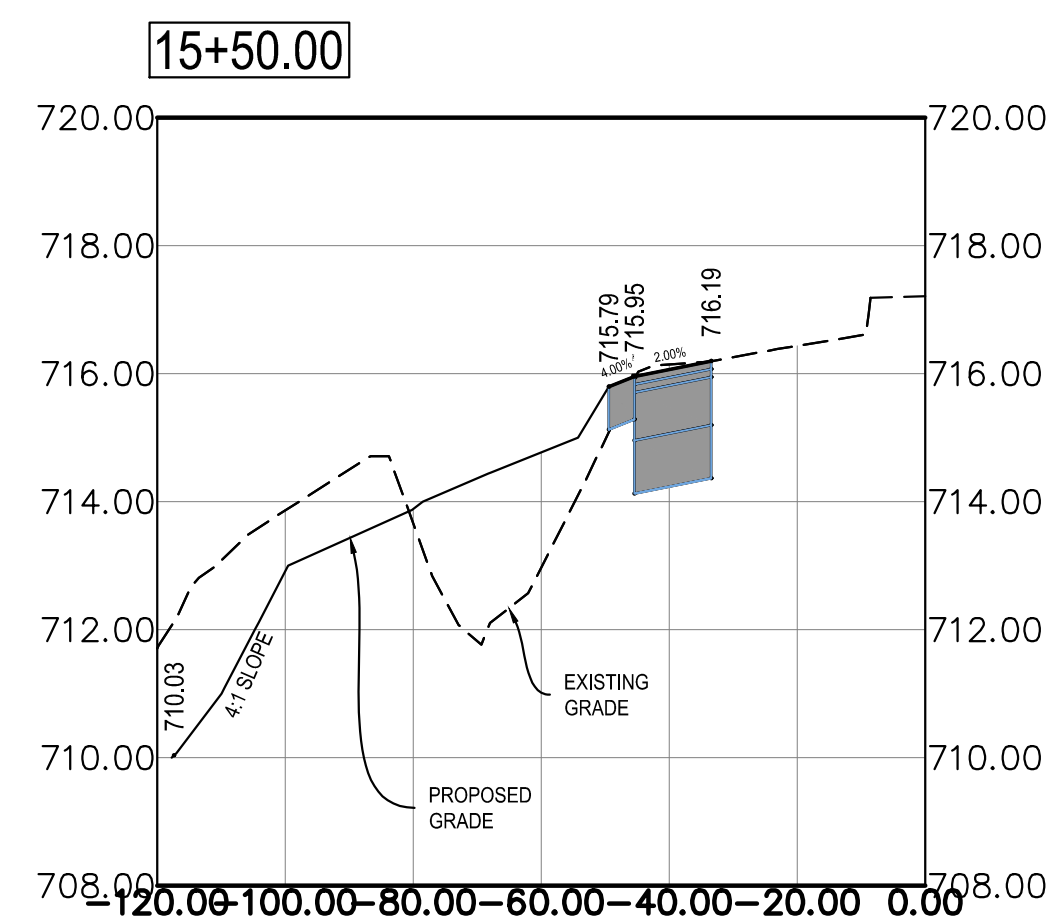
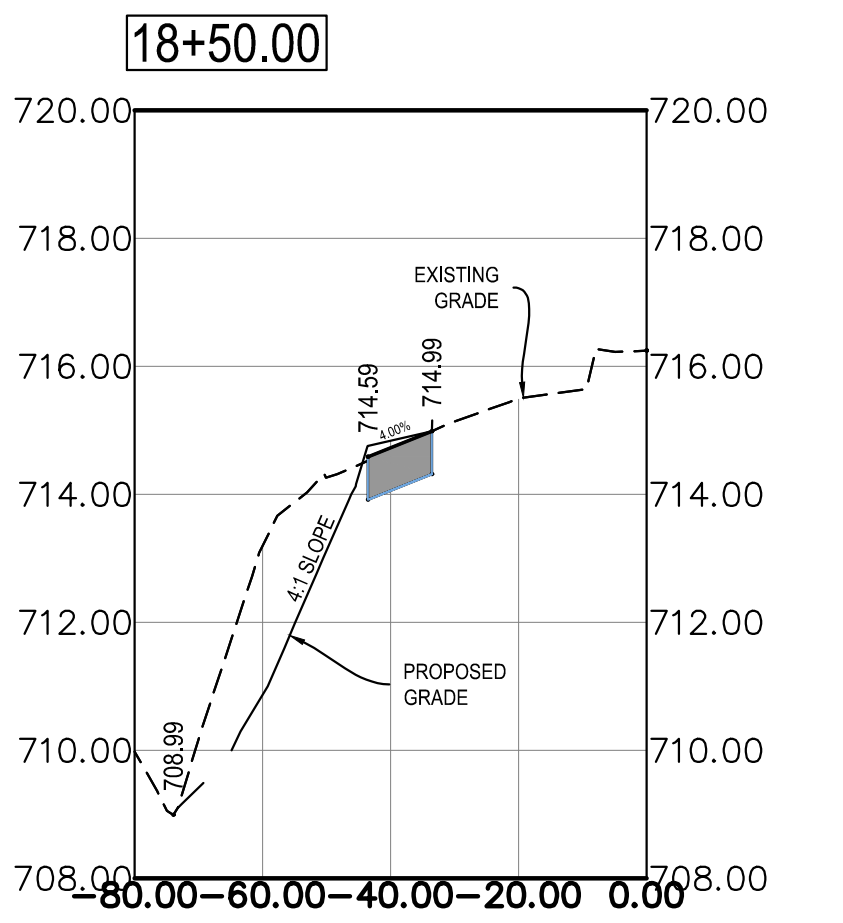
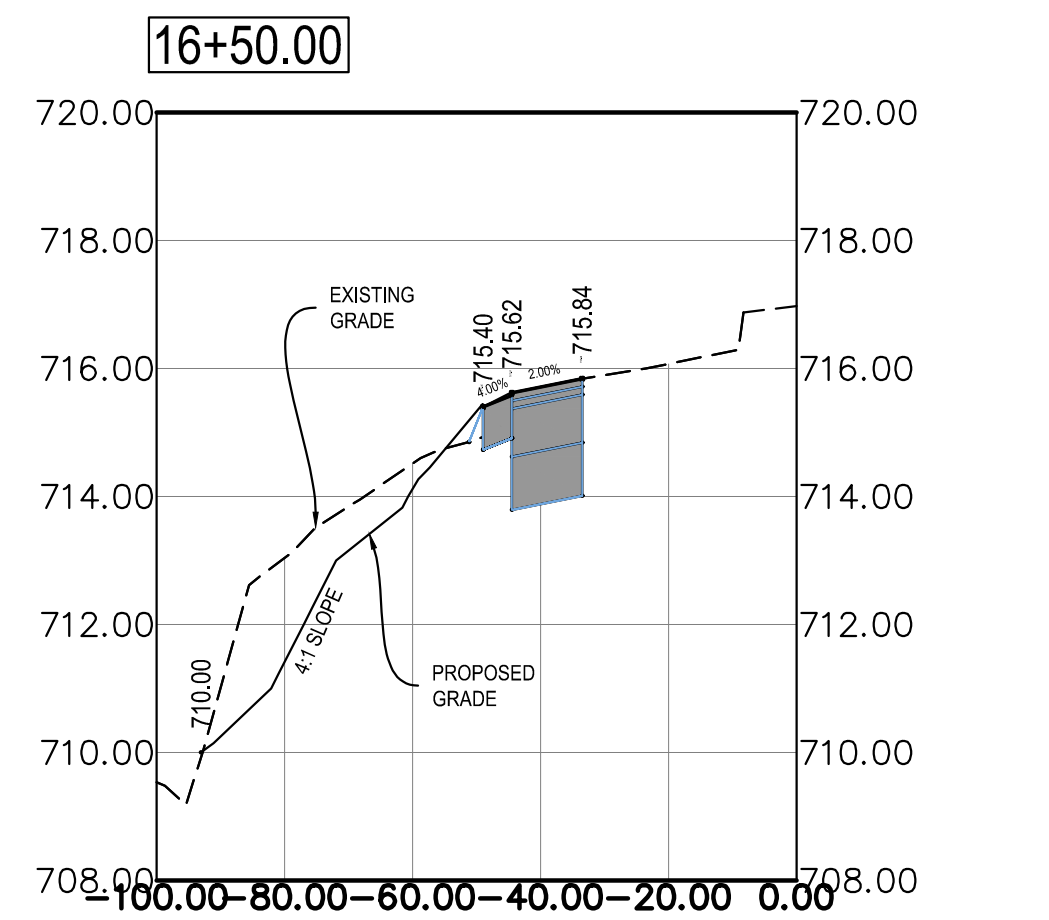
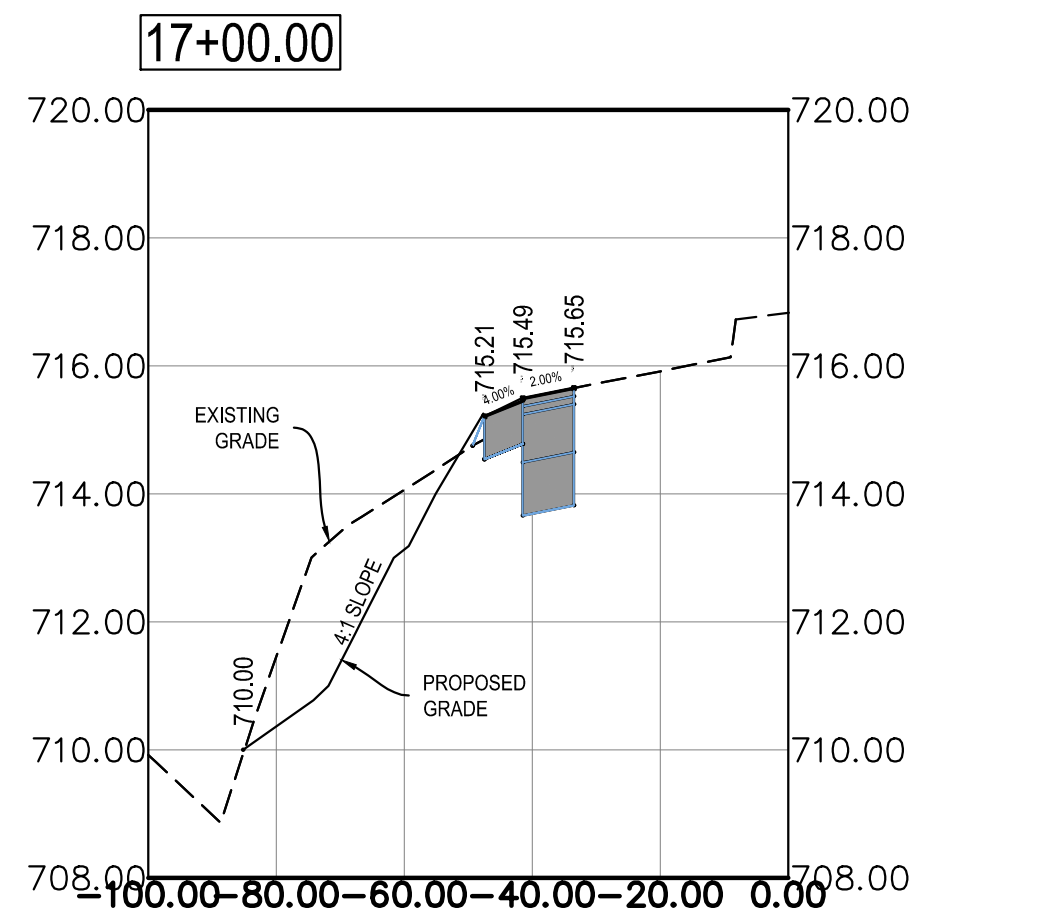
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DATE: 6/17/21
FILE: 20-036 R20
JOB NO: 20-036

R2.4
SHEET NO.

IL ROUTE 47 IMPROVEMENTS SUGAR GROVE, ILLINOIS



REVISIONS					
NO.	DATE	DESCRIPTION	NO.	DATE	DESCRIPTION
1	11/8/21	PER IDOT COMMENTS			

ONRAMP TURN LANE CROSS SECTIONS

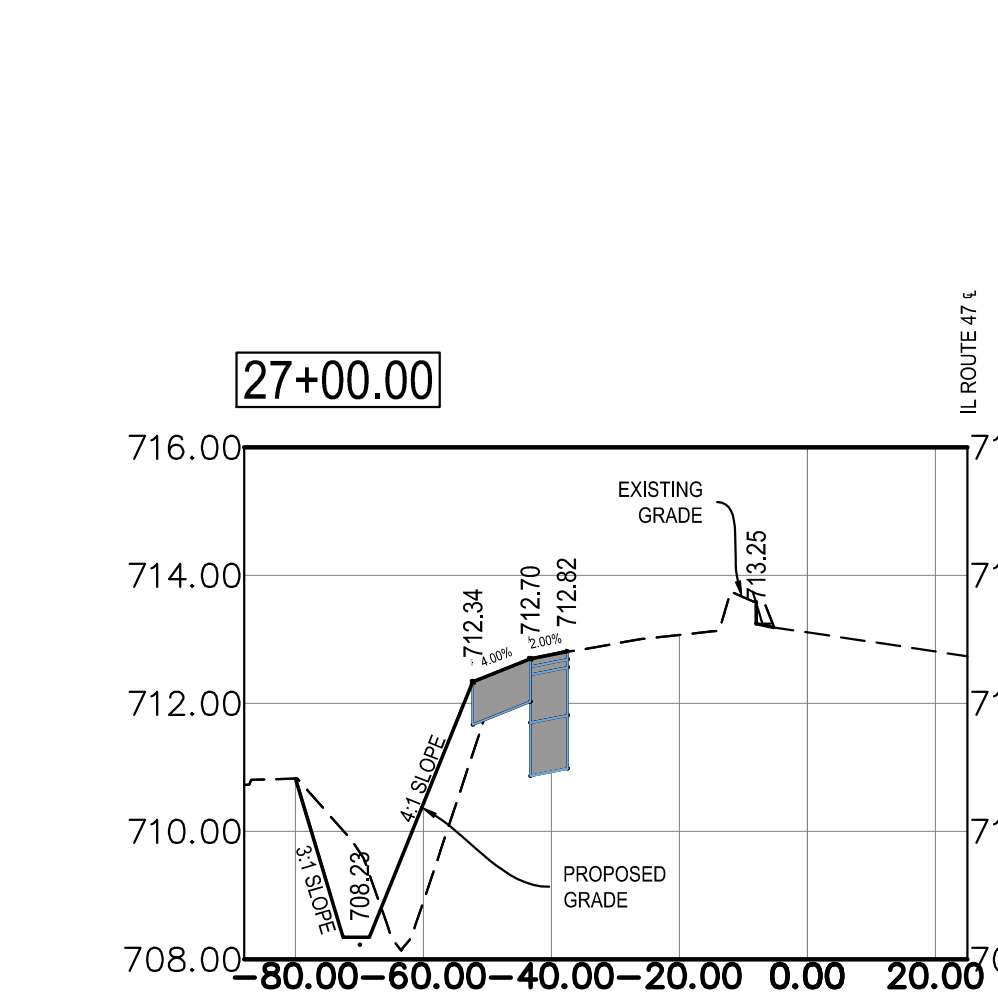
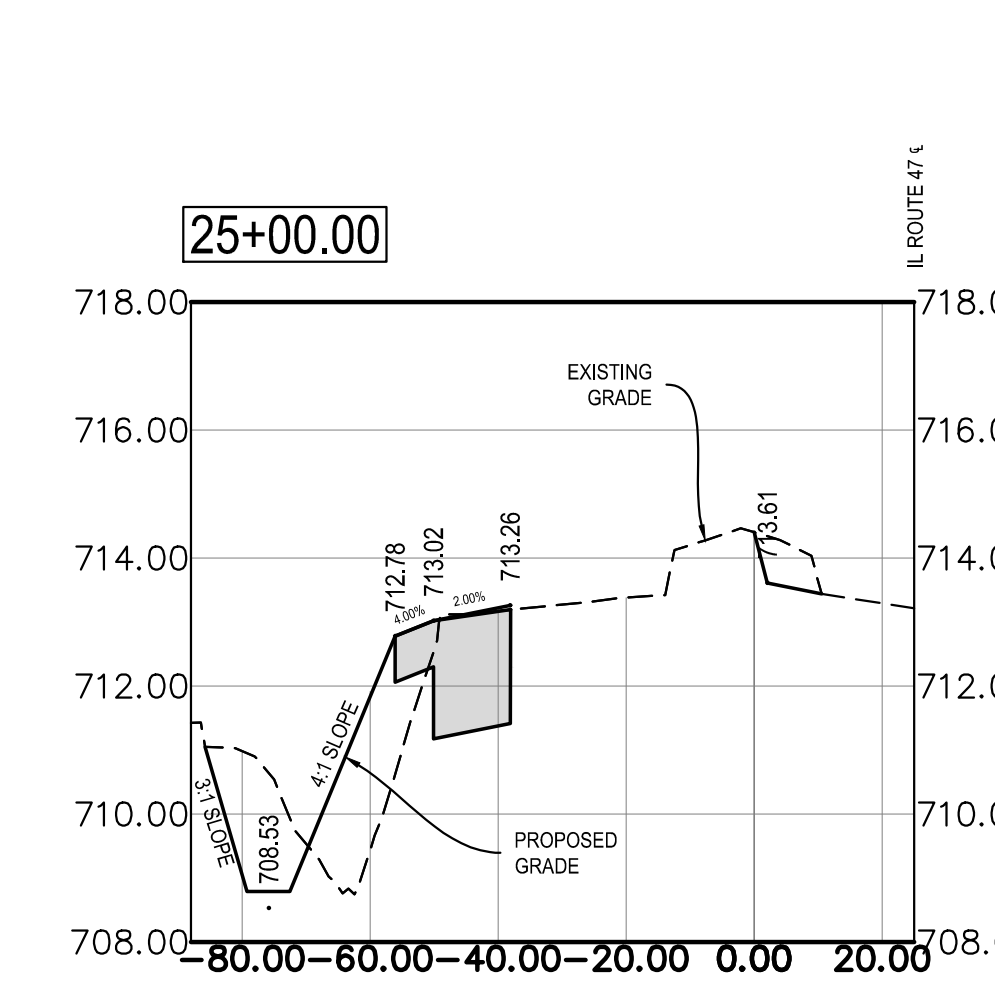
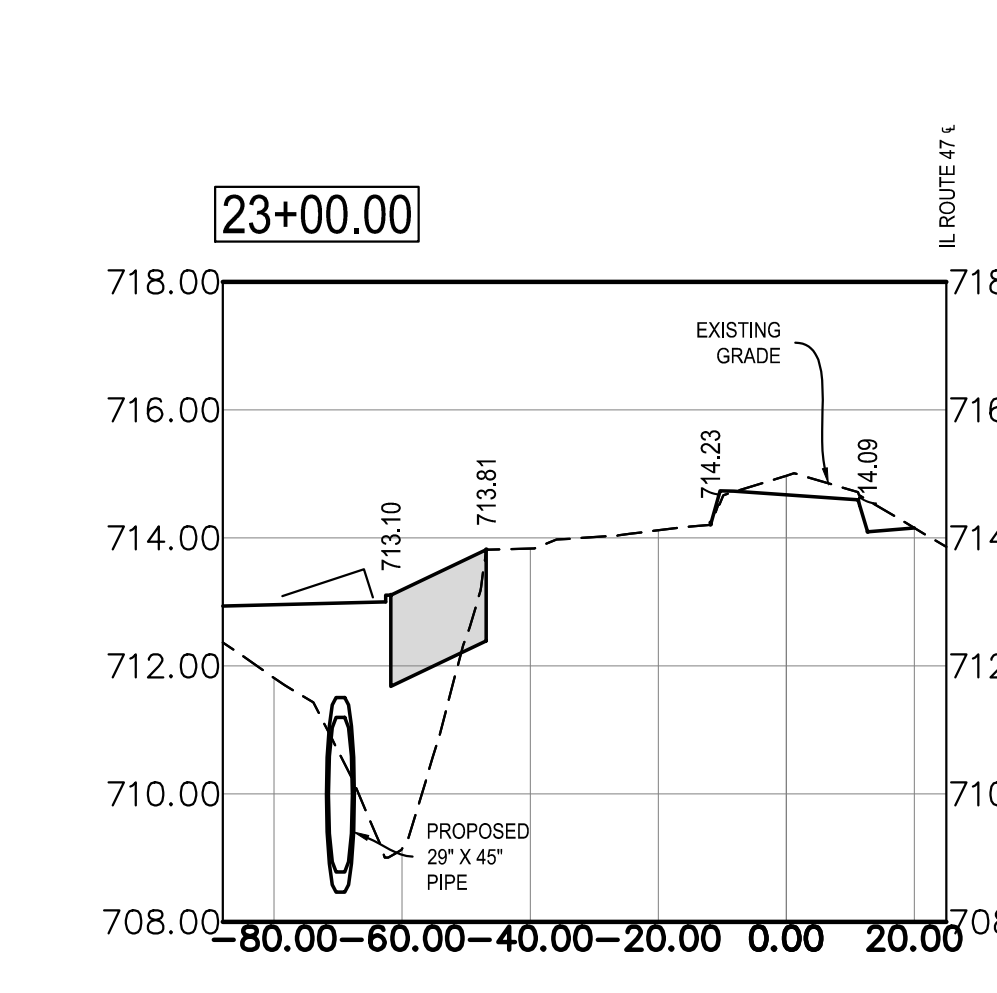
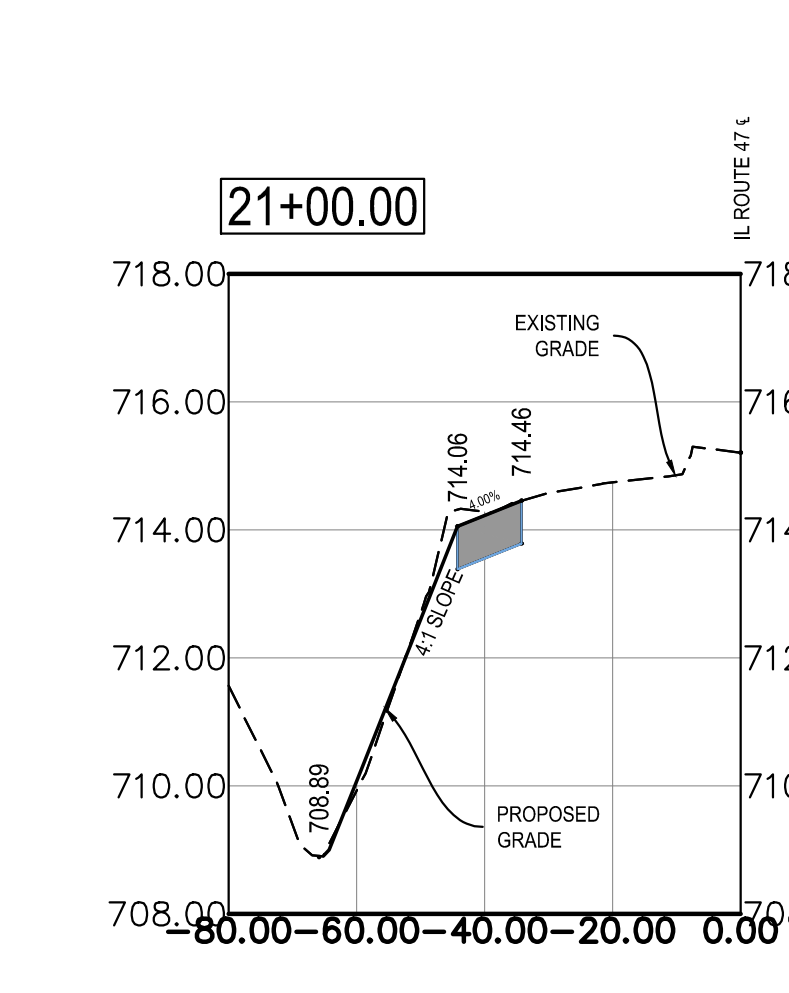
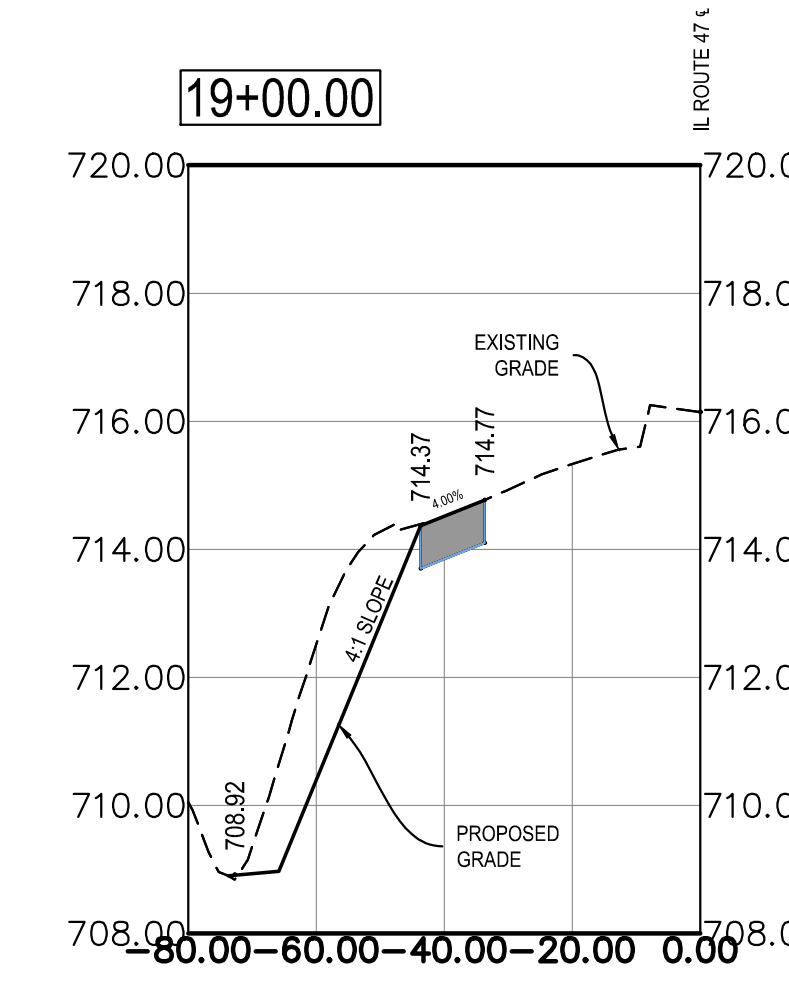
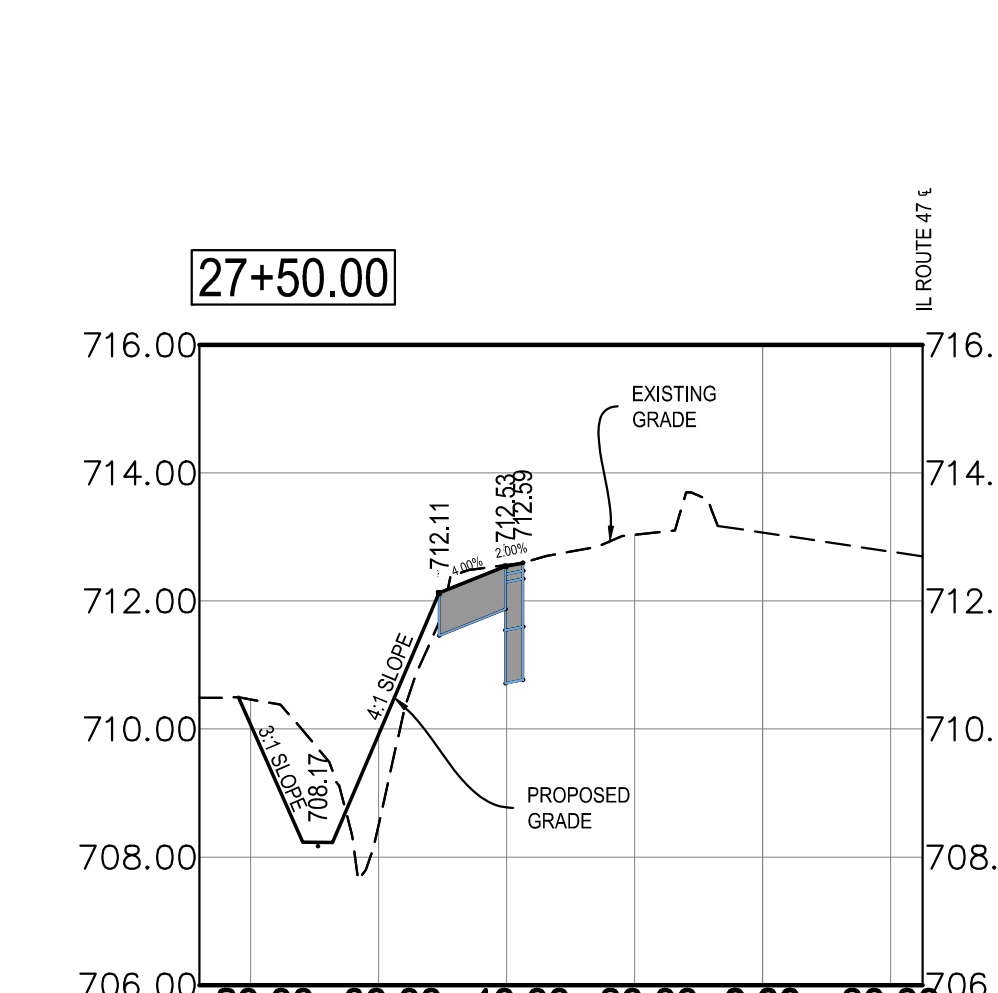
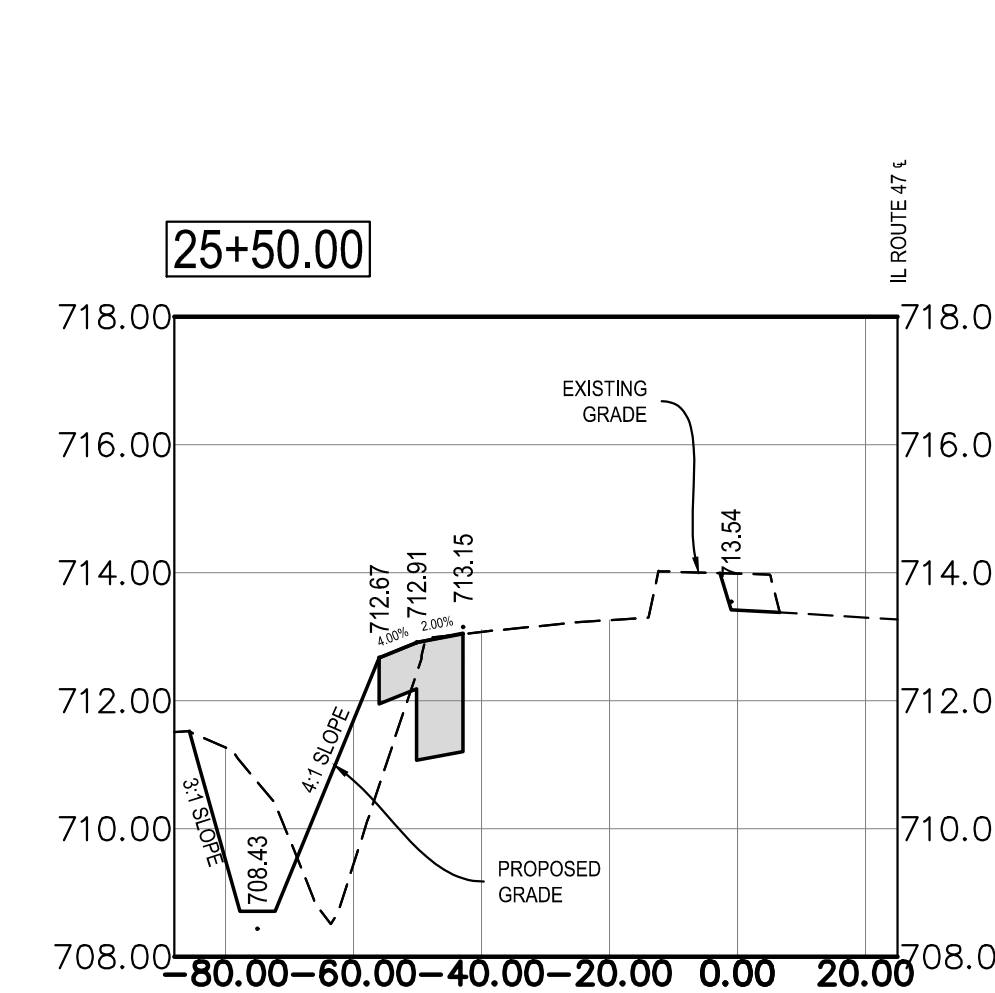
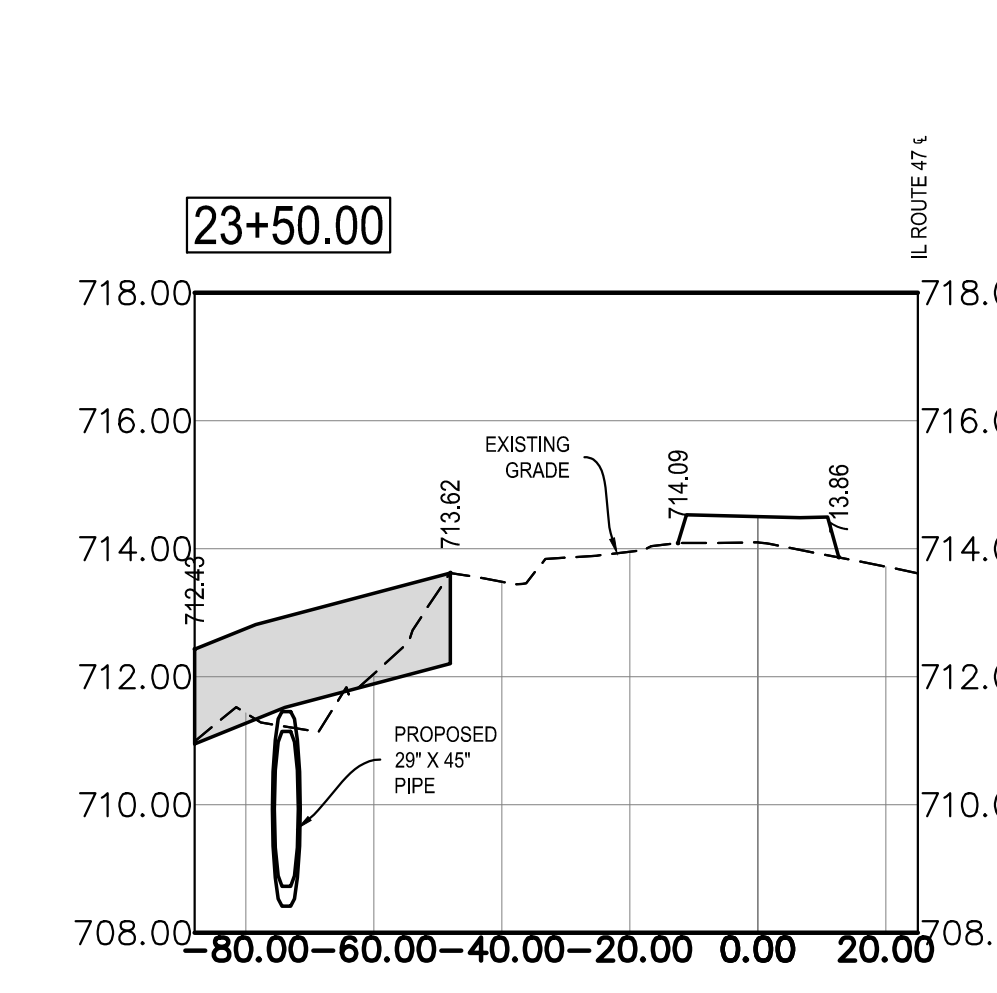
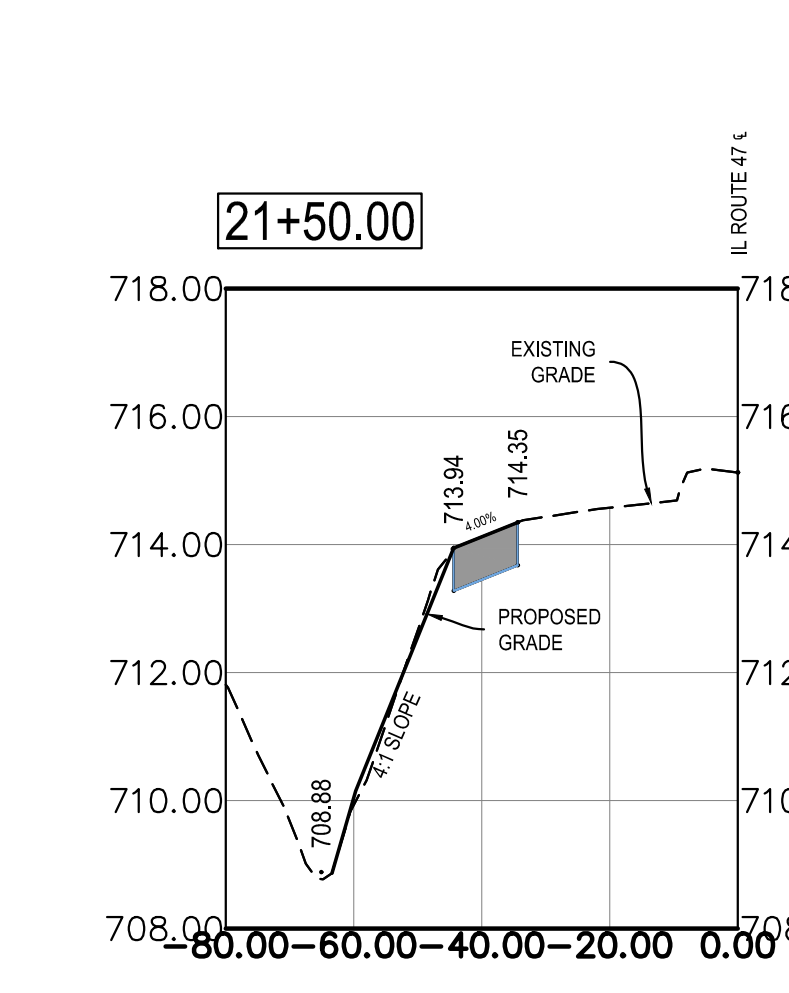
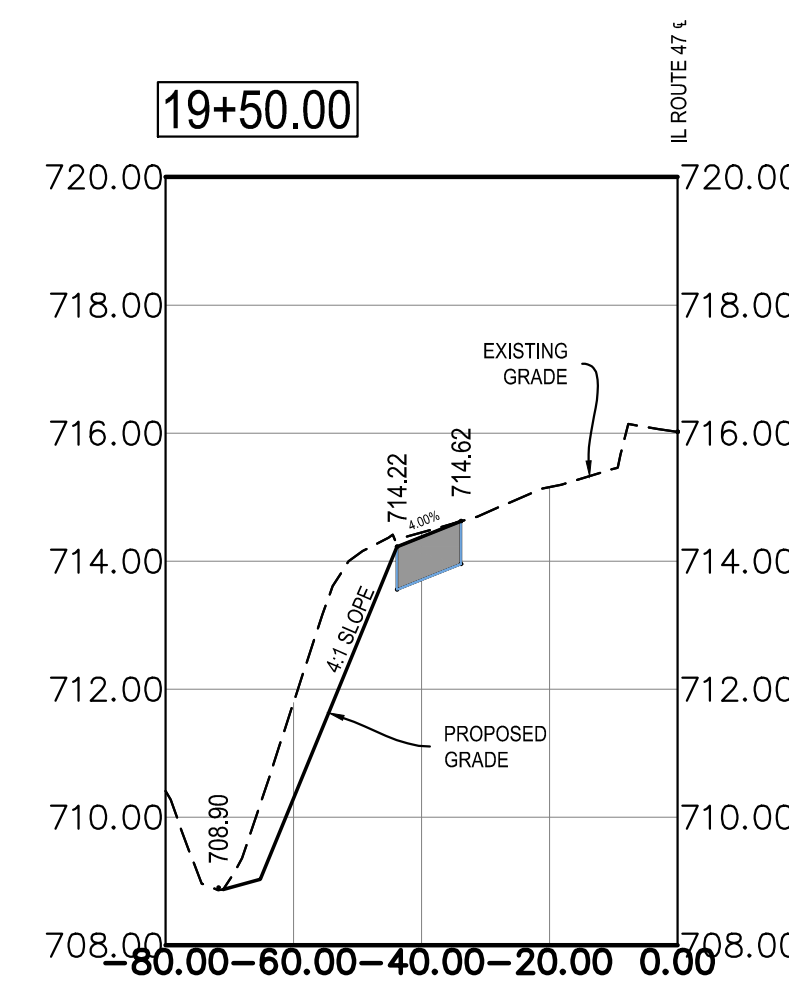
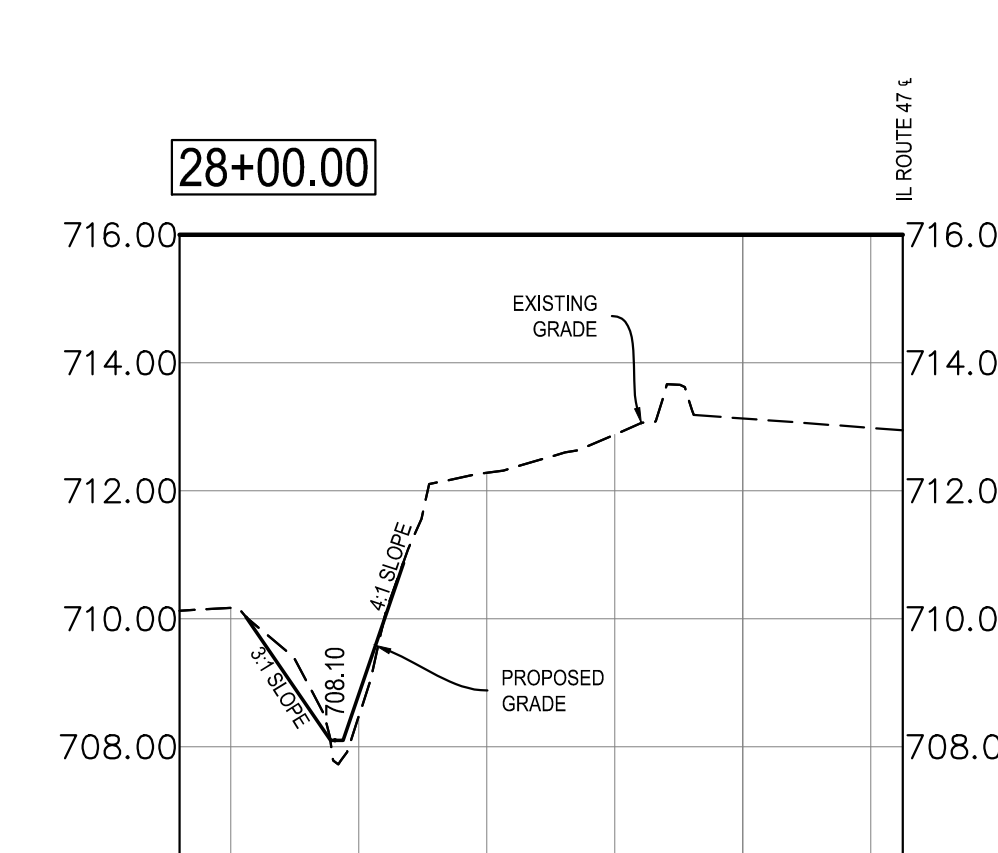
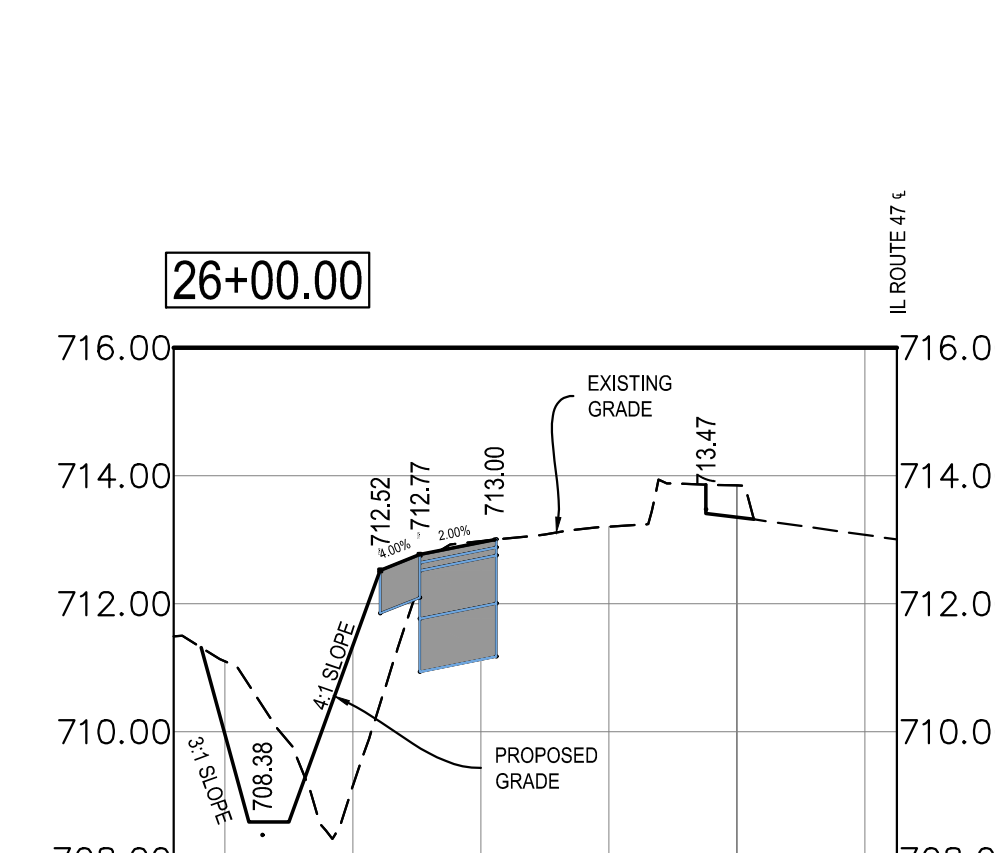
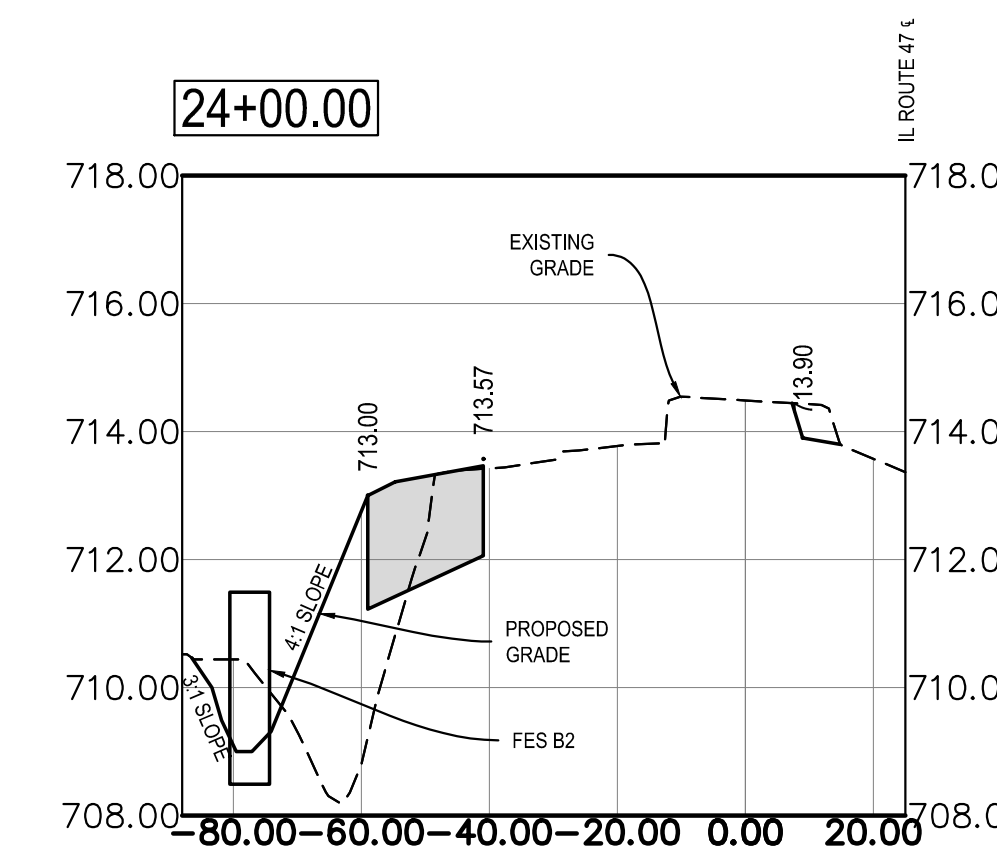
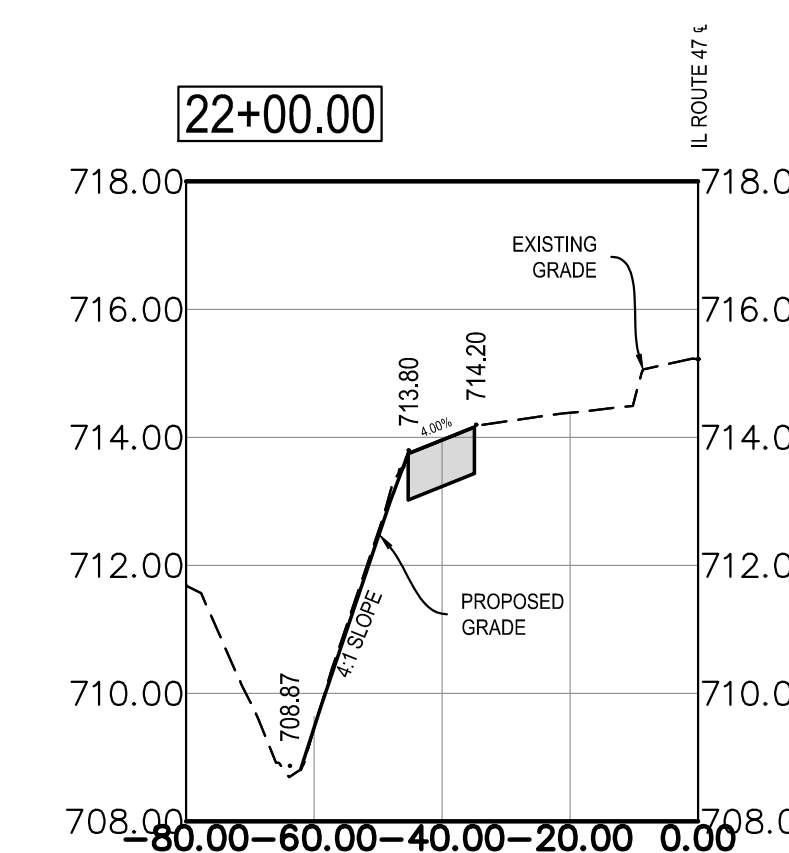
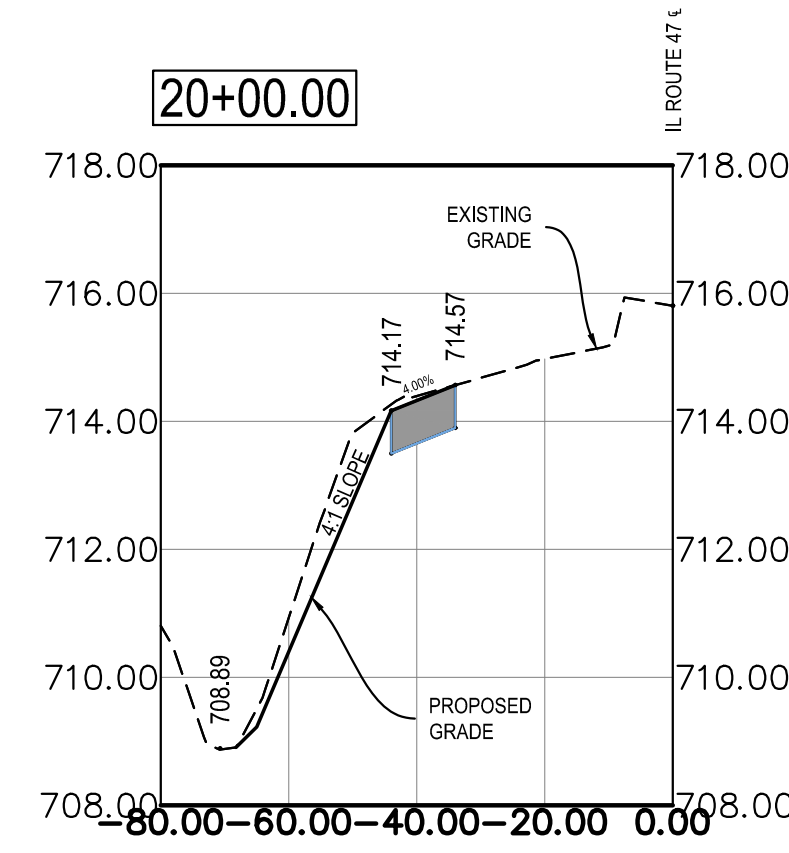
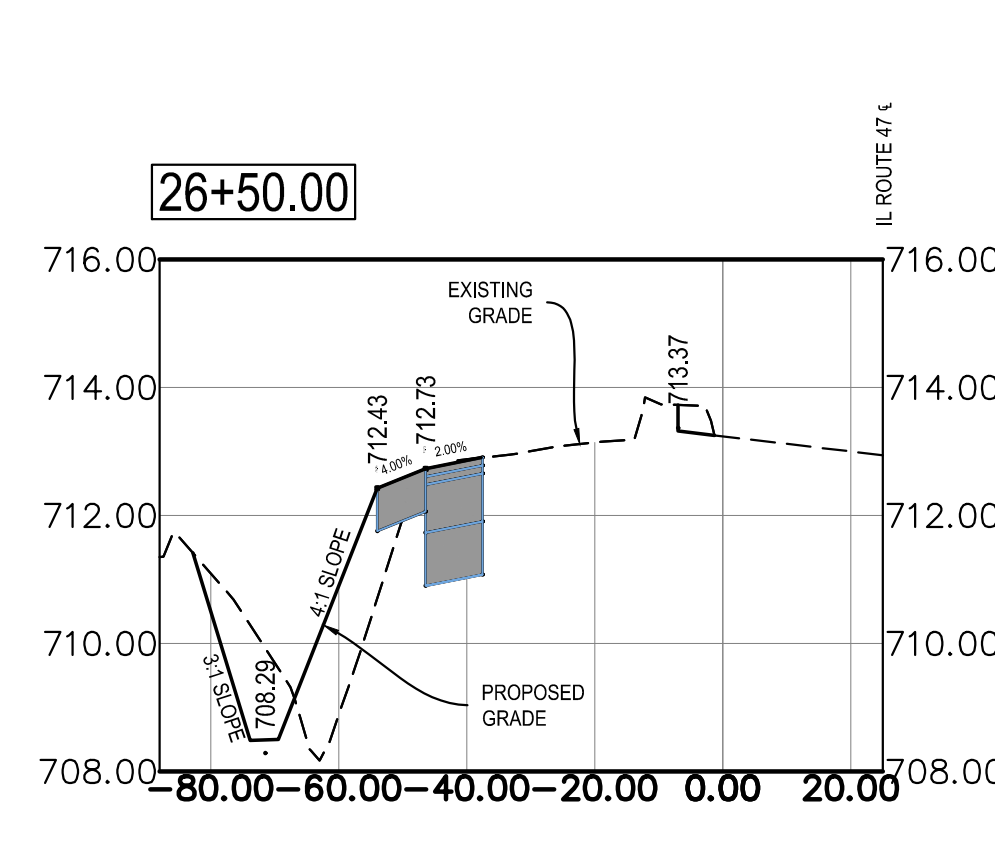
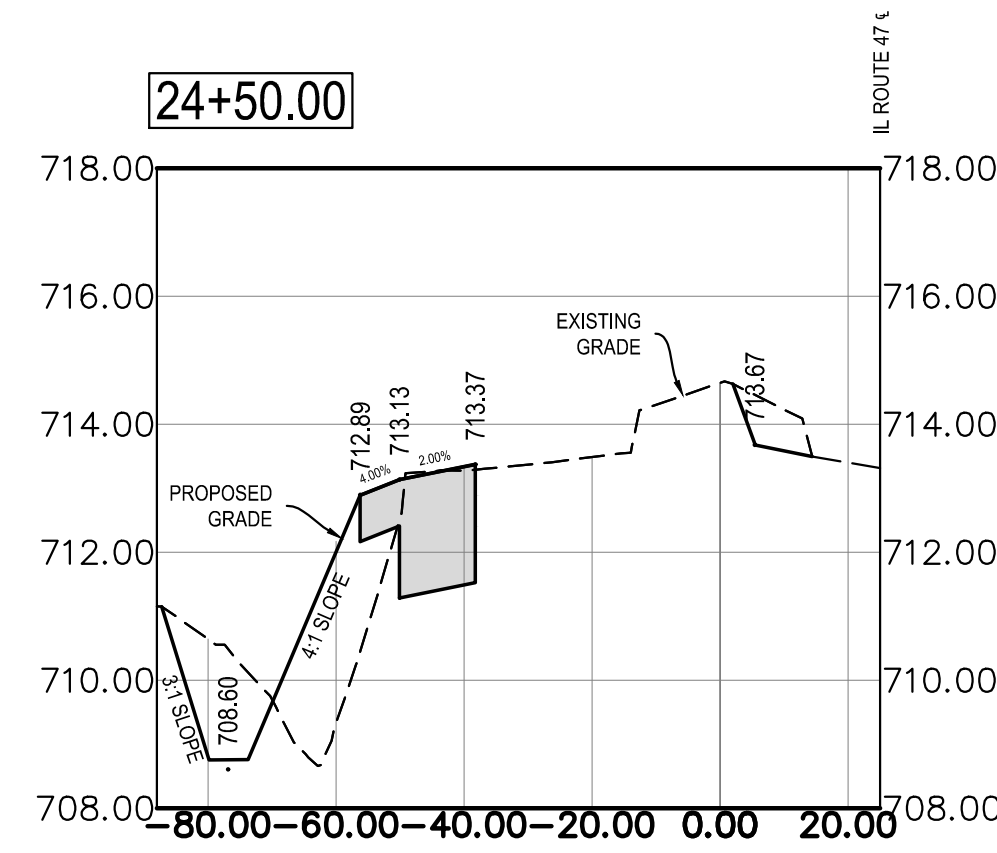
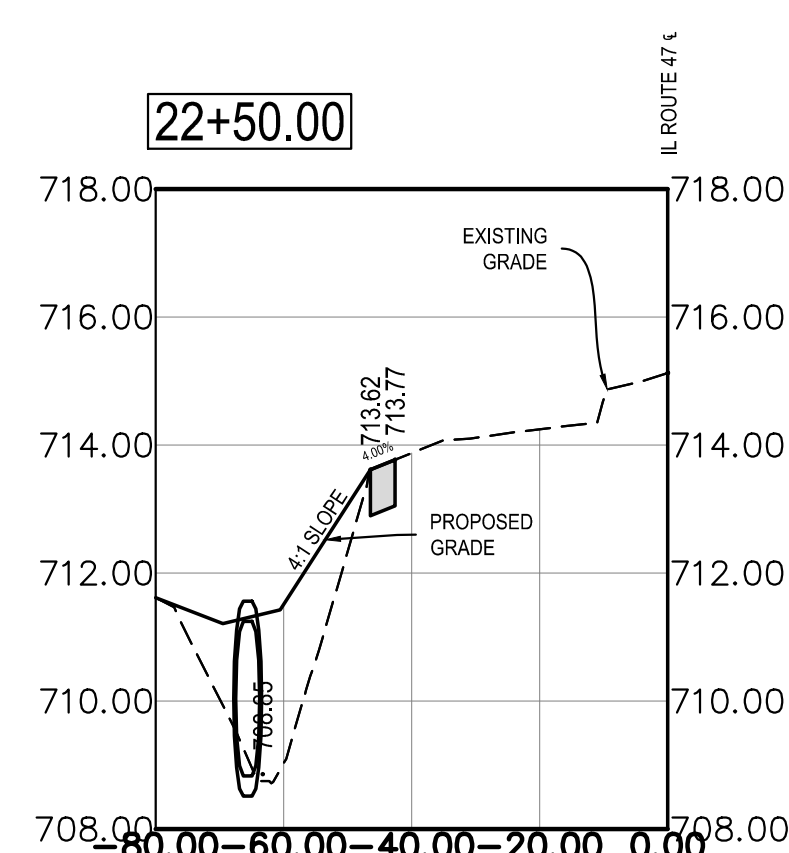
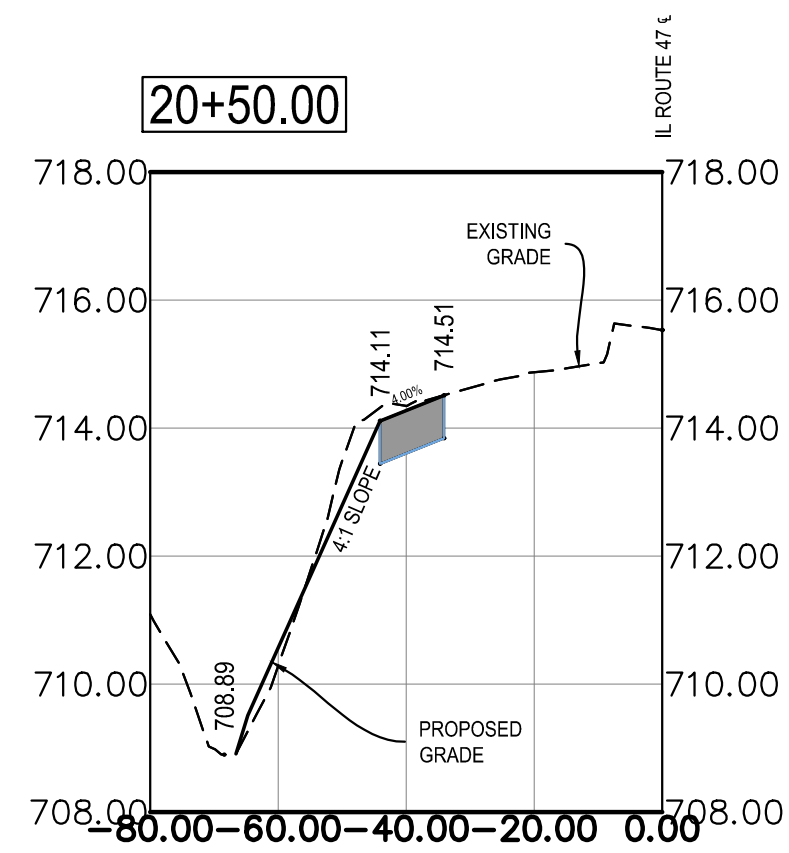
IL ROUTE 47 IMPROVEMENTS SWC IL 47 & GALENA BLVD SUGAR GROVE, ILLINOIS

1" = 3' VERTICAL SCALE
1" = 30' HORIZONTAL SCALE

Craig R. Knoche & Associates • Civil Engineers
• Surveyors
• Land Planners
24 N. Bennett Street • Geneva, IL 60134 • phone (630) 845-1270 • fax (630) 845-1275

DATE: 6/17/21
FILE: 20-036 R20
JOB NO: 20-036

R2.5
SHEET NO.



REVISIONS			
NO.	DATE	DESCRIPTION	
1	11/8/21	PER IDOT COMMENTS	

IL ROUTE 47 CROSS SECTIONS

IL ROUTE 47 IMPROVEMENTS SWC IL 47 & GALENA BLVD SUGAR GROVE, ILLINOIS

1" = 3' VERTICAL SCALE
1" = 30' HORIZONTAL SCALE

Craig R. Knoche & Associates
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24 N. Bennett Street • Geneva, IL 60134 • phone (630) 845-1270 • fax (630) 845-1275

• Civil Engineers
• Surveyors
• Land Planners

DATE: 6/17/21
FILE: 20-036 R20
JOB NO: 20-036

R2.6
SHEET NO.

GENERAL NOTES & SPECIFICATIONS

1. All roadway and pavement construction shall comply with the requirements of the latest Illinois Department of Transportation "Standard Specification for Road and Bridge Construction" or latest edition, except as may be modified by the project plans and specifications.

2. All underground construction shall comply with the requirements of the latest "Standard Specifications for Water and Sewer Main Construction in Illinois", Illinois municipal league, latest edition, except as may be modified by project plans and specifications.

3. All work shall be in accordance with the standard specifications of the Municipality. Each Contractor shall be provided with the applicable sections of this specification in the bid package.

4. All elevations shown are plus and are NAVD88 Datum.

5. The Municipal building and engineering departments shall be notified at least two (2) working days prior to start construction. The contractor is responsible for notifying all jurisdictional agencies and all utility companies with facilities that may be affected by the proposed construction, and ensuring that all underground lines are located, prior to commencing construction.

6. All work to meet the Municipal Supplemental Codes unless the state codes are more restrictive.

7. The contractor(s) shall indemnify the owner, the engineer, and the municipality, their agents, etc and Illinois Department of Transportation. From all liability involved with the construction, installation and testing of the work on this project.

8. All work shall comply with the "Illinois Urban Manual." The contractor shall take whatever steps are necessary to control erosion on the site. Erosion control features shall be constructed concurrently with other work on the site. The contractor shall take sufficient precautions to prevent pollution of streams, lakes and reservoirs with fuels, oils, bitumens, calcium chloride or other harmful materials. He shall conduct and schedule his operations so as to avoid or minimize siltation of streams, lakes and reservoirs. Hauling will not be allowed when the work site is too wet to maintain acceptable conditions on adjacent streets. Adjacent streets and driveways shall be manually or mechanically swept periodically as may be responsible for removing sediment resulting from this project from storm sewers and drainage structures at no additional cost.

9. The contractor shall be responsible for the compliance with all of the requirements of the occupational safety and health act including those requirements for open cut trenches and sheeting and bracing as required. At no time will the engineer or any of his employees be held liable, either directly or as third party participants to any litigation concerned with construction project.

10. All existing field drainage tiles encountered or damaged during construction are to be restored to their original condition, properly rerouted, and/or connected to the storm sewer system. The contractor shall keep a record of all locations of field drainage tile encountered unless otherwise noted.

11. Commonwealth Edison, AT&T, NCor gas, and other utility company conduits are not necessarily shown on the drawings and must be located in the field prior to construction.

12. The contractor shall field verify the existing conditions and notify Craig R. Knoche & Associates, Civil Engineers P.C. if any discrepancies prior to submitting a bid.

13. Contractor will be responsible for repairing all existing pavement damaged during construction that is not specified.

14. All concrete used shall be I.D.O.T. class S1.

15. Subgrade preparation for all pavements shown on the drawings shall include topsoil stripping and removal of any underlying unstable/deleterious material.

16. Apply prime coat uniformly over surface of compacted aggregate base at a rate of 0.40 gal/SY. Apply enough material to penetrate and seal, but not flood surface. Allow prime coat to cure for 72 hours minimum.

17. It shall be the responsibility of each contractor to notify J.U.L.I.E prior to performing any excavations.

18. Cable routing and specification in accordance with village ordinance.

19. The contractor shall provide the municipality and Craig R. Knoche & Associates Civil Engineers, P.C. with a complete set of record drawings within 30 days of completion of the work. Drawings shall include elevations, location of other utilities, services, field tiles, etc.

20. All property dimensions and areas are approximates and subject to change per final survey.

21. All dimensions are back of curb unless otherwise noted.

22. All curb radii are back of curb unless otherwise noted.

23. See architectural plans for exact building dimensions.

24. Contractors to verify dimensions prior to starting work and notify engineer if any discrepancies are found.

25. Sidewalk around perimeter of the building shall be integral curb / walk.

26. All pavement markings shall be painted traffic yellow 4" wide and 2 coats

27. Contractor to provide temporary traffic control measures during construction of entrances of R.O.W. in accordance with Illinois D.O.T. Requirements.

28. Contractor shall verify with local municipality or controlling jurisdiction as to the necessity for and requirements relating to the inspection by an approved on-site engineer.

29. The Municipal standard notes and details shall take precedence. Craig R. Knoche and Associates will not take responsibility for the accuracy of the Municipal details.

30. Knoche Engineering PC shall not have control or be in charge of and shall not be responsible for the means, methods, safety, safety precautions techniques, sequence procedures or time of performance of the client, the contractor, other contractors or subcontractors performing any of the work or providing any of the services on the project

EARTHWORK NOTES & SPECIFICATIONS

1. All trenched in green / landscape area shall be backfilled with earth compacted to 90%. A minimum of 6" of topsoil shall provided in green / landscape areas. Trenches in all paved areas, curbed, and sidewalk areas shall be back filled with approved Engineering Backfill compacted as 95% modified Proctor.

2. All disturbed areas shall be restored and positive drainage must be maintained.

3. All landscaping must be restored to its original condition. Replacement of all black dirt, seed, trees, bushes, etc. shall be provided by the contractor and guaranteed for one year following final inspection by the local governmental agency having jurisdiction. Guarantee shall include repair of trench settlements as needed to bring trench to original grade.

4. Existing drainage patterns shall be restored following construction. Positive drainage shall be maintained throughout construction.

5. All existing utilities or improvements, including walk, curbs, pavements, driveways, and parkways damaged or removed during construction shall be restored to their original condition.

6. See soil report for testing requirements.

7. The contractor is advised that soil borings have been performed for this project. Boring logs and the soil report are available from the engineer. This report is dated _____ and was prepared by _____. The soil borings were performed by _____. The soils report and borings are a part of the of the bidding documents and is the soil reports and borings are received with the bid set, it is the bidders responsibility to obtain and review the soil report and borings prior to submitting final bid.

8. After stripping and rough grading is completed, the exposed sub grade should be proof rolled. Proof rolling may be accomplished with a fully loaded, tandem-axle dump truck or other equipment providing an equivalent sub grade loading. Unstable areas observed at this time should be improved by scarification and recompaction or by undercutting and replacement with suitable compacted fill.

9. State erosion control measures must be implemented and maintained throughout construction.

10. Contractor shall provide dust control during site work demolition or removal. Contractor shall control dust created from on-site construction and associated traffic using water or other approved means.

11. Protect trees, plant growth, and features designated to remain as final landscape grading. Construction equipment shall not travel under drip lines of trees to be protected.

12. Protect benchmarks from damage or displacement.

13. Remove trees and shrubs, stump, and root system to a minimum depth of 42 inches.

14. Moisture Control-Where subgrade or layer of soil material must be moisture conditioned before compaction, uniformly apply water to surface of subgrade or layer of soil material. Apply water in minimum quantity as necessary to prevent free water from appearing on surface during or subsequent to compaction operations.

15. Remove and replace, or scarify and air dry, soil material that is too wet to permit compaction to specified density.

16. Stockpile or spread soil material that has been removed because it is too wet to permit compaction. Assist drying by discing, harrowing or pulverizing until moisture content is reduced to a satisfactory value.

TRAFFIC CONTROL NOTES & SPECIFICATIONS

1. The contractor in accordance with I.D.O.T. standards shall provide all required traffic control and signs.

2. The contractor shall maintain temporary access to all roadways and driveways during construction. The contractor shall notify homeowners at least 24 hours in advance of temporary open cuts required to install utilities across driveways.

GENERAL UTILITY NOTES & SPECIFICATIONS

1. Water and sewer locations taken from drawings by _____ others and must be located in the field by contractor prior to construction, including all elevations of rims and inverts.

2. All sewer and water mains trenches under, crossing under or within five (5) feet of existing or proposed curb & gutter, sidewalk, or pavement shall be back filled.

3. Valve Vaults and manholes frames and rings shall be set in workmanlike manner in easy-stick (or equal) bed.

4. All stubs to buildings shall end 5 ft. from the building. All stubs shall be right angles to the foundation.

5. Contractor shall mark the end of all stubs with a 4" x 4" wood marker extended to 3" minimum above grade. Markers shall be painted as follows: Blue – Water, Green – Sanitary, Yellow – Storm.

6. Install conduit free from crimps and dents. Plug ends to prevent entry of dirt or moisture after installed

7. Clean out conduit before installation of conductors.

8. Conduit outside the building shall be buried minimum 36 inches below grade unless noted otherwise

9. Underground conduits shall have a minimum of 2 inch spacing between conduits and be back filled and compacted to the density specified elsewhere to eliminate all air pockets. Conduits from building to fuel pumps may be clustered in the same trench with minimal separation as required by owner.

10. All underground conduits shall be protected against future excavation damage by placing a plastic tape warning marking in each trench during backfill. Install tape full length of the trench.

11. Contractor shall verify with local municipality or controlling jurisdiction as to the necessity for and requirements relating to the inspection by an approved on-site engineer.

GENERAL NOTES FOR SANITARY SEWER CONSTRUCTION

DESIGN STANDARDS

A. Sanitary sewer system

Sanitary sewer system shall be designed to meet Illinois Environmental Protection Agency (IEPA), The Standard Specifications for Sewer and Water Main Construction in Illinois, latest edition, Metropolitan Water Reclamation District of Greater Chicago and other applicable requirements. The design shall incorporate the more stringent requirements of the following items or agency requirements:

1. Each single-family lot or each building in other than single-family development shall be served with a separate sanitary sewer service.

2. All structures shall include provisions for an overhead sewer system, unless otherwise approved by the Utilities Superintendent or Director of Public Works.

3. Manholes are to be provided at each change in direction of flow, change in pipe size, change in slope, change in material and at each intersection. Maximum manhole spacing is three hundred feet (300). Where feasible, the sanitary sewer system shall be designed so as to provide for manholes to be installed within the R.O.W. Sanitary sewers installed within the rights-of-way shall not be placed more than eight feet from edge of pavement.

4. Provide calculations to substantiate the available capacity of the receiving sewer.

5. Note on the plans which sewer lines are to be public and private.

6. Pipe shall be laid in approved bedding. Minimum size sewer main shall be eight inches (8"). Sanitary sewers with an invert elevation fifteen feet or greater in depth shall be ductile iron pipe. Sanitary services shall be a minimum of 4" with a minimum slope of 2.00%

7. When connecting to an existing sewer main by means other than an existing "Y" or "T", or an existing manhole, one or the following methods shall be used:

a) Remove an entire section of pipe and replace with a "Y" or "T" branch section. The section shall be removed by breaking only the top of one bell. After the "Y" or "T" branch is inserted, concrete shall be placed over the broken area to a minimum thickness of four inches (4") and to a dimension of eight inches (8") in all directions.

b) Using pipe cutter, neatly and accurately cut out desired length of pipe for insertion of proper fitting. Use "band-seal" couplings or similar couplings, and shear rings and clamps to fasten the inserted fitting and hold it firmly in place. Mastic couplings shall have the length of boot approximately equal to the pipe diameter. Follow manufacturer's recommendations for the installation.

c) Pipe penetrations into existing sanitary manholes shall be properly sized and cored and sealed with flexible watertight connections. No cut-in connection made by breaking or cutting a hole in the main and inserting the spigot end of an ordinary sewer pipe shall be permitted. No connections to manholes are permitted unless approved by the Superintendent.

8. New sanitary manholes are to be pre-cast reinforced concrete eccentric type with a minimum 48" I.D. barrel section, and monolithic bottom section; Pipe penetrations are to be sealed via the use of a cast-in-place flexible synthetic rubber pipe sleeve, which is to be fastened to the pipe with stainless steel bands. Barrel sections shall be sealed using a butyl rubber material strip and/or rubber gasket and a nine-inch (9") "MacWrap" external seal band or approved equal. Frames shall be sealed to the manhole by using either synthetic rubber seals with stainless steel bands or a heat shrinkable wrap around sleeve. Approved systems are external type chimney seals, manufactured by "Cretex" or Conusa Wrapid Seal manhole encapsulation system. Existing frames requiring adjustment will also be required to be sealed. A maximum of eight inches (8") of adjusting rings may be used. All joints between pre-cast elements, adjusting rings and manhole frames shall be set in place using butyl rubber joint sealant. Steps shall be made of steel reinforced plastic, using an approved plastic meeting ASTM D4101, Type II, Grade 49108, over or #3 grade 50, ASTM A615, reinforcing bar. Steps shall be at 16" (Inch) centers.

9. Sanitary sewer manholes constructed in a flood plain must have a rim twelve inches (24") above base flood elevation and have a water-tight-lock type frame and cover, Neenah R-1916 C or approved equal. Cover must have "SANITARY" cast into the top of the cover.

10. Except as provided in #8 above, all frames and covers are to be East Jordan Iron Works Number 1050-Z1, with concealed pick holes and sealed cover. Variations in casting dimensions shall be approved by Utilities Superintendent. Manhole covers must have "SANITARY" cast into the top of the cover. Manhole covers shall be EAST JORDAN IRON WORKS, product No. 102332, catalog No. 1020A, reference No. 1020B9. The cover casting shall include the Municipality's logo. All casting shall be coated immediately after cleaning and machining. Coating shall be a non-toxic water base asphalt paint, complying to the AWWA C104 specification.

11. All utility and service trenches under or within two feet of paved surfaces or driving areas shall be backfilled with CA-6 material properly compacted. Mechanically compacted backfill shall be placed in six-inch horizontal layers of thickness. Each layer shall be evenly spread, moistened (or dried, if necessary), and then tamped or rolled until 90 percent relative compaction is achieved.

MANHOLE / SEWER PIPE MATERIALS AND INSTALLATION SPECIFICATIONS

MATERIALS

1. PIPE & FITTINGS

Pipe and fittings used in sanitary sewer construction, unless otherwise specified and approved by the City, shall be polyvinyl chloride (PVC) pipe. PVC pipe and fittings dated over one year old shall not be permitted for use.

The types of PVC pipe and fittings that shall be used in the City include:

~ PSM Poly(Vinyl Chloride) (PVC) Sewer Pipe and Fittings (ASTM – SDR series), conforming to ASTM Numbers D-1784, D-3034 for SDR 26, D-3212, F-412, and F-477, and

~ Iron Pipe Sized (IPS) Poly(Vinyl Chloride) Pressure Rated Pipe and Fittings (ASTM – SDR series), conforming to ASTM Numbers D-1784, D-2241, D-3139, F-412 and F-477, and

~ Ductile Iron Pipe Sized (DIS) Poly(Vinyl Chloride) Pressure Rated Pipe and Fittings (AWWA DR-series) conforming to AWWA C-900, AWWA C-905, and ASTM Numbers D-1784, D-2241, D-3139, F-412, and F-477.

All PVC plastic pipe and fittings shall have a cell classification of 12454-B or C as defined in ASTM D-1784 and shall have a minimum pipe stiffness as shown below in Table 1. The required Standard Dimension Ratio (SDR) for PVC pipe and fittings shall be selected based upon the depth of cover, as also shown in Table 1.

TABLE 1: PVC PIPE / FITTINGS					
Minimum Pipe Type	Depth of Cover	Pipe #	Thickness	Standards	Stiffness
PSM*	0'-15"	6"-12"	SDR 26	ASTM D-3034	115
IPS	0'-15"	6"-36"	SDR 26	ASTM D-2241	
IPS	0'-20"	6"-36"	SDR 21	ASTM D-2241	
DIS	0'-30"	6"-12"	DR 18	AWWA C-900	364
DIS	0'-30"	14"-24"	DR 18	AWWA C-905	364
DIS	0'-16"	30"-48"	DR 25	AWWA C-905	140
* (PSM) is an arbitrary designation for a product having certain dimensions regarding Elastic Sewer Mains					

When a span due to over-dig at any wall or foundation exceeds two (2) feet, a six (6) inch SDR 21 (or greater) PVC pipe sleeve through the wall shall be added through the span of the over-dig area. This sleeve must extend an additional two (2) feet beyond the over-dig area, resting on undisturbed soil. This sleeve will accommodate a four (4) inch PVC schedule 40 pipe that must be sealed at the sleeve, using a six (6) inch x four (4) inch regular brand mission coupling. The sleeve pipe shall increase as necessary to accommodate a larger sewer service pipe when required, and shall be supported by class 1A CA-7 crushed stone.

PVC pipe fittings conforming to ASTM D-3034 and ASTM D-2241 shall have a minimum wall thickness of SDR 26 plastic pipe as defined in table 1 (ASTM D-3034 or ASTM D-2241), and at least the same thickness of the main sewer line that they are installed in.

Fittings in sizes through eight (8) inches shall be molded in one piece with elastomeric joints and minimum socket depths as specified in each respective section. Fittings that are ten (10) inches and larger shall be molded or fabricated with elastomeric joints in accordance with ASTM standards D-1784 and D-3139 incorporating the manufacturer's standard pipe size, bells and gaskets. Gaskets shall conform to ASTM F-477 and ASTM F-913.

Joints shall meet the requirements of ASTM Standard D-3212 or D-3139, whichever is applicable. Fittings with a gasket retention race formed by heating or crimping are not permitted throughout the City. Solvent cemented (welded) joints are not permitted, except when used in the fabrication of fittings, by the manufacturer, prior to installation. City of South Beloit reserves the right to approve all pipe and fittings on a case-by-case basis.

2. BEDDING, HAUNCHING, AND INITIAL BACKFILL

Bedding material shall be Class 1A, as outlined in ASTM D-2321 and shall be certified by the manufacturer and approved by the City prior to installation, to have the following characteristics:

~ Description: Shall be Crushed Stone or Crushed Gravel, as produced from crushing by mechanical means.

~ Gradation: Shall meet the IDOT gradation of CA-7.

~ Plasticity Index: Shall meet a plasticity index of 0 to 4 percent as determined by the method given in AASHTO T 90.

~ Specific Gravity: Shall have a specific gravity (dry) of greater than 2.45.

~ Sources of Supply: All sources of supply shall be approved by the City. Only coarse aggregates from these sources shall be used on the job unless approval in writing is obtained from the City.

LABORATORY TEST

The City reserves the right to require a contractor to submit certified copies of all reports of tests conducted by an independent laboratory before installation of PVC plastic pipe. Tests shall be conducted in accordance with Standard Method of Test for "External Loading Properties of Plastic Pipe by Parallel-Plate Loading.

INTERNAL DIAMETER

Pipe shall be constructed so that the internal diameter does not decrease by more than five (5) percent, in order to provide the complete hydraulic carrying capacity, and to obtain the joint performance at five (5) percent maximum diametric deflection.

PIPE INSTALLATION AND FIELD TESTING

Pipe shall be constructed in full compliance with the ASTM Standard Specification D-2321 "Underground Installation of Flexible Thermoplastic Sewer Pipe".

Trench widths should be stable or supported, provide a width sufficient, but no greater than necessary, to ensure working room to properly and safely place and consolidate haunching and other embedment materials. The space between the pipe and trench wall must be wide enough to hand work and place the haunching material. From the trench floor to twelve (12) inches above the top of pipe, the minimum trench width shall be the outside diameter of the pipe plus sixteen (16) inches and the maximum trench width shall be the diameter of the pipe plus twenty four (24) inches.

When trench wall supports such as trench sheeting, trench jacks, trench shields or boxes are used, ensure the support of the pipe and its embedment is maintained throughout installation, including during and after the removal of such supports.

MANHOLE / SEWER PIPE MATERIALS AND INSTALLATION SPECIFICATIONS

The pipe shall be laid so that it will be uniformly supported for its entire length. No blocking of any kind shall be used to adjust the pipe to grade except when embedment concrete is used. Bedding shall be a minimum of six (6) inches in depth. The bedding material shall be placed and worked in hand to provide uniform support, then around and over the crown of the pipe by a minimum thickness of twelve (12) inches. The granular embedment material shall be placed and consolidated the full width of the trench. The contractor shall be required to install the pipe in such a manner that the diametric deflection of the pipe shall not exceed five (5) percent and the materials surrounding the pipe shall be placed as outlined in ASTM D-2321.

PVC transition fittings shall be used in all new construction when joining PVC pipes of different outside dimensions. Pipe connections of dissimilar materials in existing sewers shall be made with a non-shear flexible neoprene "Mission" brand connector with stainless steel bands, where no "hub" exists.

Service connections to new mains shall be with a tee/eye fitting with a 6" branch. Service connections to an existing main or phal-type "go no go" device, with a diameter equal to ninety-five (95) percent of the un-deflected inside diameter of the flexible pipe, through the pipeline.

Cast iron clean out covers conforming to ASTM class 25 or higher shall be required for all sanitary sewer services located in any paved surface. Locations of solid covers shall be determined at the time of plan review.

FINAL ACCEPTANCE AND TESTING OF SANITARY SEWER

Before final acceptance, the sanitary sewers shall be tested in accordance with Section 31-1.12 of the "Standard Specifications for Water and Sewer Main Construction in Illinois". In addition, all sanitary sewer having a diameter of eight (8) inches or greater shall be televised by the City. Specifically, all pipelines constructed of flexible materials shall be subject to air exfiltration tests, televising test, and deflection test. The deflection test shall be performed no sooner than thirty (30) days of the backfilling operation and shall consist of measuring the pipe for vertical ring deflection. Maximum ring deflection of the pipeline under test shall be limited to five (5) percent of the internal pipe diameter. All pipe exceeding this deflection shall be re-aid or have reached the limit of its serviceability and shall be re-laid or replaced by the contractor at their sole expense.

The cost of all deflection testing shall be borne by the contractor and shall be accomplished by pulling a mandrel, sphere, or pin-type "go no go" device, with a diameter equal to ninety-five (95) percent of the un-deflected inside diameter of the flexible pipe, through the pipeline.

MANHOLES

1. INSTALLATION

All manhole castings, adjusting rings and manhole sections shall be set in BUTYL rope or approved equal. The inside joints of manhole sections, adjusting rings, and frame shall not be mortared. However, the area between the pipe and flow channel shall be filled with cement mortar to provide a flush smooth surface. Each manhole cone and barrel section joint shall also be externally sealed with a *6" or *9" wide (min.) sealing band of rubber and mastic. The band shall have an outer layer of rubber or polyethylene with an under layer of rubberized mastic (with a protective film), meeting the requirements of ASTM C-877, **type II or *type III. Pipe connections to all manholes through openings (cast or core-drilled) shall be provided with a flexible rubber watertight connector conforming to ASTM C-923, "Standard Specifications for Resilient Connectors Between Reinforced Concrete Manhole Structures And Pipes". A maximum of 8 inches of adjusting rings (2 total rings) is allowed. The frame, chimney, and top "lip" of the cone section shall be required to be sealed with a chimney seal. Only "Adaptor-Seal", "Infa-Shield", or an approved equal will be allowed. Do not use unapproved seals.

2. TESTING

All manholes shall be tested in accordance with Section 32-12 of "Standard Specifications for Water and Sewer Construction in Illinois."

Vacuum Testing shall be carried out immediately after assembly and prior to backfilling of manholes that are up to seventy-two (72) inches in diameter. All lift holes shall be plugged with a non-shrink grout, or rubber plug. The manhole frame, adjusting rings and chimney seals shall be in place before testing. No grout shall be placed in the horizontal joints. All plugs entering the manhole shall be plugged, taking care to securely brace the plugs from being drawn into the manhole with the vacuum testing. A vacuum of ten (10) inches of mercury shall be drawn and the time measured for the vacuum to drop to nine (9) inches of mercury. The Vacuum shall not drop below nine (9) inches of mercury for the following time periods for each size manhole.

Forty-eight (48) inches Diameter – sixty (60) seconds
Sixty (60) inches Diameter – seventy-five (75) seconds
Seventy-two (72) inches Diameter – ninety (90) seconds

Vacuum Tester shall be manufactured by P.A. Glazier, Inc., Worcester, Ma., 01613, phone: (800) 822-6488. All work of testing shall be done in accordance with the requirements of P.A. Glazier, Inc. Contractor shall provide all material and equipment necessary for testing. If testing fails, contractor shall seal all leaks with materials and methods as recommended by P.A. Glazier, Inc., and retest until acceptable. This testing shall be completed before backfilling so that any leaks can be found and fixed externally, and to give the horizontal manhole joints an opportunity to tighten.

WATER MAIN NOTES & SPECIFICATIONS

1. All water service horizontal and vertical separation from sanitary and storm sewers shall be the same as water main separations.

2. Water services shall have a minimum of 5.5 feet of cover from finished grade.

3. Any existing utility structures requiring modifications are to be adjusted (up to 12" total adjustment) by the contractor as part of the contract. Any adjustment of 2" or less shall use preformed rubber adjusting rings, which are 2" or less in thickness.

4. All water mains shall be cement lined ductile iron pipe, class 52 conforming to AWWA C-151 with push-on or mechanical joints and shall have a minimum of 5.5 feet of cover. Water mains shall be encased in polyethylene film in accordance with AWWA C-105-82. Fittings shall be cement lined, for coated cast iron with mechanical joints rated 250 PSI per AWWA C110/Ansi 21.20 (Clow, American, U.S. Pipe, or equal). Trace Wire shall be installed (see COMM Supplemental Specifications).

5. All materials shall be verified with the local authority. Water services shall be type "K" copper water tube or the size shown on the plans, corporations stop, curb stop, and service box, all as required by the municipality, and all necessary labor, tools, equipment, excavations and back fill, for a complete installation as shown on the plans.

6. All fire hydrants shall be Watertown Pacer Model WB-67. Auxiliary valve to be resilient seat wedge gate valve, with valve inlet embossed "water". All fire hydrants shall be painted in accordance with the Municipal standards.

7. Water mains shall be protected in accordance with the requirements of the Illinois EPA. Where a sewer (sanitary or storm) crosses below a water main, a minimum vertical separation of 18" shall be provided between the top of the sewer pipe and the bottom of the water main pipe. When the 18" vertical separation is not provided and the water main is above the sewer (sanitary or storm), the sewer shall be constructed to water main standards for a minimum of 10 feet on each side of the water main unless otherwise noted on the drawings. When the water main crosses below the sewer (storm only), the sewer shall be constructed to water main standards for a minimum of 20 feet on each side of the water main unless otherwise noted on the drawings. If the water main crosses beneath the sewer (storm only), 18" vertical separation shall be provided in all cases. In addition, sewer pipe shall be supported in order to prevent pipe from sagging closer to the water main. Minimum water main cover is 5-1/2 feet. Minimum horizontal separation of 10' between sewers and water main shall be adhered to. Prior IEPA approval is required in order to construct water main under storm or sanitary sewers.

REVISIONS

NO.	DATE	DESCRIPTION	NO.	DATE	DESCRIPTION

GENERAL NOTES & SPECIFICATIONS

DIVISION DRIVE IMPROVEMENTS

SWC IL 47 & GALENA BLVD
SUGAR GROVE, ILLINOIS

Craig R. Knoche & Associates

• Civil Engineers
• Surveyors
• Land Planners

24 N. Bennett Street • Geneva, IL 60134 • phone (630) 845-1270 • fax (630) 845-1275

DATE: 6/17/21

FILE: 20-036 R70

JOB NO: 20-036

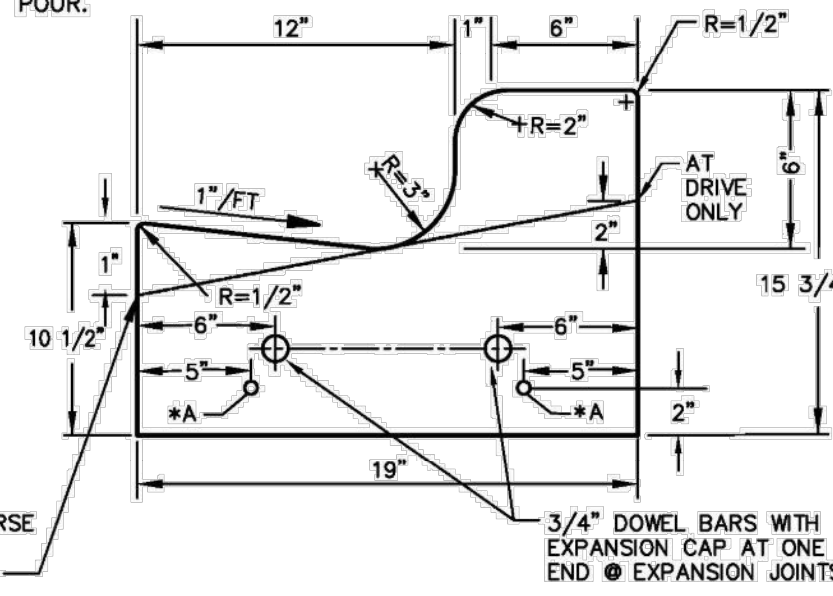
R7.1

SHEET NO.

DIVISION DRIVE IMPROVEMENTS

SUGAR GROVE, ILLINOIS

1. ALL CONCRETE FOR CURB AND GUTTER SHALL CONFORM TO I.D.O.T. STD. SPEC. FOR ROAD & BRIDGE CONST. SEC. 606 AND BE CLASS "SI". CONCRETE SIX BAG MIX, WITH 5% TO 8% AIR ENTRAINMENT.
2. CONTRACTION JOINTS SHALL BE PLACED AT TEN (10) FOOT (MIN.) O.C. PER ARTICLE 420.05 AND SHALL BE SAW CUT TO A MINIMUM DEPTH OF TWO (2) INCHES FROM FRONT TO BACK WITHIN TWENTY-FOUR (24) HOURS OF CONCRETE PLACEMENT AND SHALL BE SEALED WITH POLYSULFIDE JOINT SEALANT PER ARTICLE 420.12.
3. 2- 3/4" X 18" SMOOTH DOWEL BARS WITH CAPS AND WITH ONE END GREASED SHALL BE USED AT ALL EXPANSION JOINTS. 3/4" PREMOIDED EXPANSION JOINTS TO BE PLACED AT ALL P.C.'S, P.T.'S AND AS INDICATED BELOW.
4. EXPANSION JOINTS, AS DETAILED HEREIN, SHALL BE CONSTRUCTED AT A MINIMUM SPACING AS INDICATED BELOW.
5. ALL CURBS SHALL BE CURED TO THE REQUIREMENTS OF ARTICLE 1020.13 OF THE STATE OF ILLINOIS STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION. MEMBRANE CURING SHALL BE W.R. MEADOWS CS 309 WITH WHITE FUGITIVE DYE AS PER TYPE II MEMBRANE CURING.
6. THE MINIMUM LONGITUDINAL CURB SLOPE SHALL BE 0.5%.
7. CUTS IN THE CURB WILL BE MADE FULL DEPTH WITH FULL EXPANSION JOINTS DRILLED AT EACH END AS SHOWN HEREIN.
8. CURB AND GUTTER SHALL HAVE A LIGHT BROOM FINISH.
9. CURB TO BE PLACED ON A 4" (MINIMUM) CRUSHED CA-6 AGGREGATE BASE.
10. THE CURB AND GUTTER SHALL BE DEPRESSED AT ALL SIDEWALK AND MULTI-USE PATH TEES IN COMPLIANCE WITH ILLINOIS ACCESSIBILITY STANDARDS.
11. THE COMPACTED CURB SUBGRADE SHALL BE SHAPED PARALLEL TO CURB FLOW LINE AND POSITIVELY DRAINED TO THE INLETS AND CATCH BASINS.
12. THE MINIMUM CURB AND GUTTER REPLACEMENT SHALL BE 10 FEET AND SHALL BE NO LESS THAN JOINT TO JOINT EXCEPT WHERE RECOMMENDED BY THE VILLAGE ENGINEER.
13. ALL CURB AND GUTTER SHALL BE PROTECTED PER IDOT ARTICLE 1020.13 WHEN WEATHER CONDITIONS DICTATE.
14. ALL WEATHER AND CONCRETE CONDITIONS SHALL MEET IDOT REQUIREMENTS.
15. ALL WATER AND SANITARY SERVICES SHALL BE STAMPED WITH A "W" OR AN "S" ACCORDINGLY IN THE FACE OF THE CURB HEAD.
16. THE VILLAGE ENGINEER SHALL BE NOTIFIED 48 HOURS PRIOR TO ANY POUR.

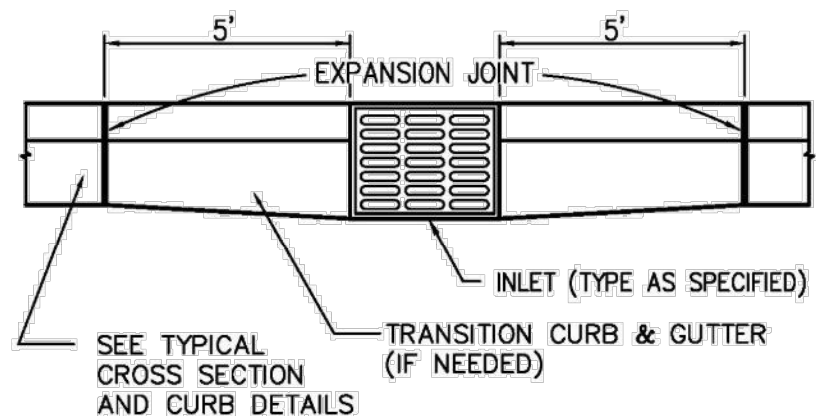


*A 2-20', NO.4 REBAR AT ALL TRENCH CROSSINGS

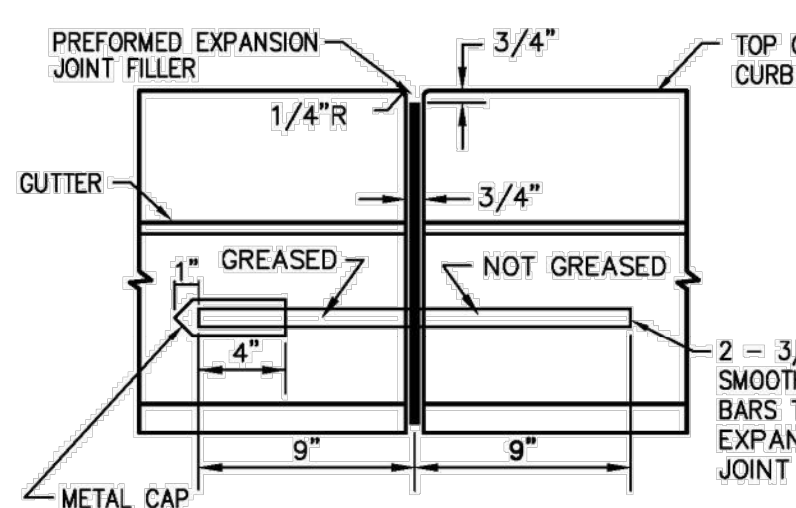
TYPE B-6.12 CONCRETE CURB & GUTTER

Village of Sugar Grove 10 Municipal Drive Sugar Grove, Illinois 60054 Phone: (830) 391-7200	SCALE: N.T.S. DATE: 5/18/07	FOLDER: SG-RD	DRAWING NUMBER: 06	DRAWN BY: CLN	REVIEWED:
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CURB & GUTTER TRANSITION DETAIL AT INLETS



CURB & GUTTER EXPANSION JOINT DETAIL



EXPANSION JOINT DETAIL & TRANSITION DETAIL AT INLETS

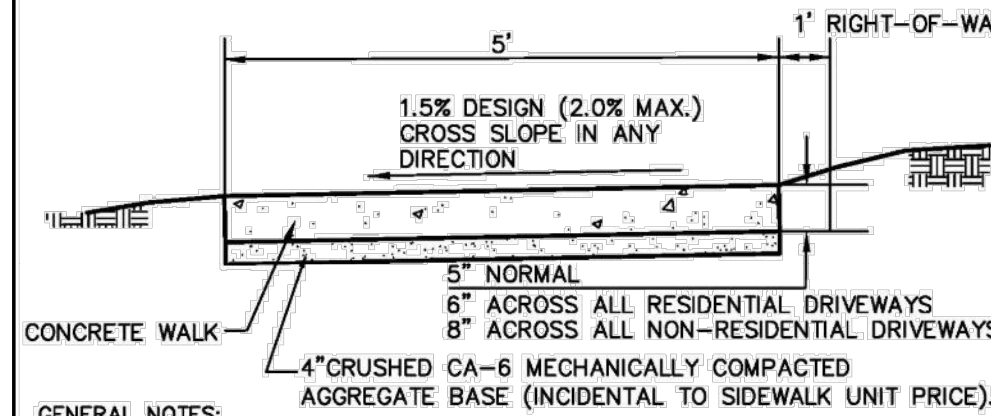
Village of Sugar Grove 10 Municipal Drive Sugar Grove, Illinois 60054 Phone: (830) 391-7200	SCALE: N.T.S. DATE: 3/28/07	FOLDER: SG-RD	DRAWING NUMBER: 08	DRAWN BY: JGG	REVIEWED:
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NOTES:

1. PLACEMENT OF DETECTABLE WARNING TILES SHALL ADHERE TO LOCATIONS AND SETBACKS AS SHOWN IN IDOT HIGHWAY STANDARDS INCLUDING 424001, 424006, 424011, 424016, 424021, 424026, AND 424031 FOR VARIOUS FIELD CONDITIONS. SIDEWALK RAMP WIDTH (W) AND LAYOUT SHALL BE ACCORDING TO THESE IDOT HIGHWAY STANDARDS, EXCEPT A SIDE CURB SHALL NOT BE CONSTRUCTED IN LANDSCAPED AREAS. THE ENGINEER SHALL INCLUDE THE MOST CURRENT IDOT STANDARDS IN THE FINAL ENGINEERING PLANS.
2. A PREFABRICATED, BRICK RED (FEDERAL STANDARD COLOR 30166) DETECTABLE WARNING PANEL WITH SQUARE PATTERNED, TRUNCATED DOMES, SHALL BE UTILIZED. THE PANEL SHALL BE AN E-Z-SET CERAMIC COMPOSITE DETECTABLE WARNING PANEL OR APPROVED EQUAL BY VILLAGE ENGINEER.
3. TILES SHALL BE INSTALLED PER MANUFACTURER INSTRUCTIONS.
4. THE COLORING AND STAMPING OF CONCRETE WILL NOT BE ALLOWED.
5. ALL CONCRETE SHALL BE POURED IN PLACE.
6. THE PANEL SHALL LIE PERPENDICULAR TO THE STREET AND SHALL BE ALIGNED WITH RAMP ACROSS THE STREET.
7. A FIELD MEETING SHALL BE SET UP WITH THE VILLAGE ENGINEER OR STREETS AND PROPERTIES SUPERVISOR PRIOR TO BEGINNING WORK ON ANY RAMP. THE CONTRACTOR'S FIELD SUPERINTENDENT RESPONSIBLE FOR RAMP CONSTRUCTION SHALL BE PRESENT AT MEETING.
8. DESIGN ENGINEER SHALL INCLUDE CURRENT IDOT RAMP DETAIL IN PLAN SET.

CURB HEAD TAPER AT PEDESTRIAN RAMPS FOR SIDEWALKS IN LANDSCAPED AREAS

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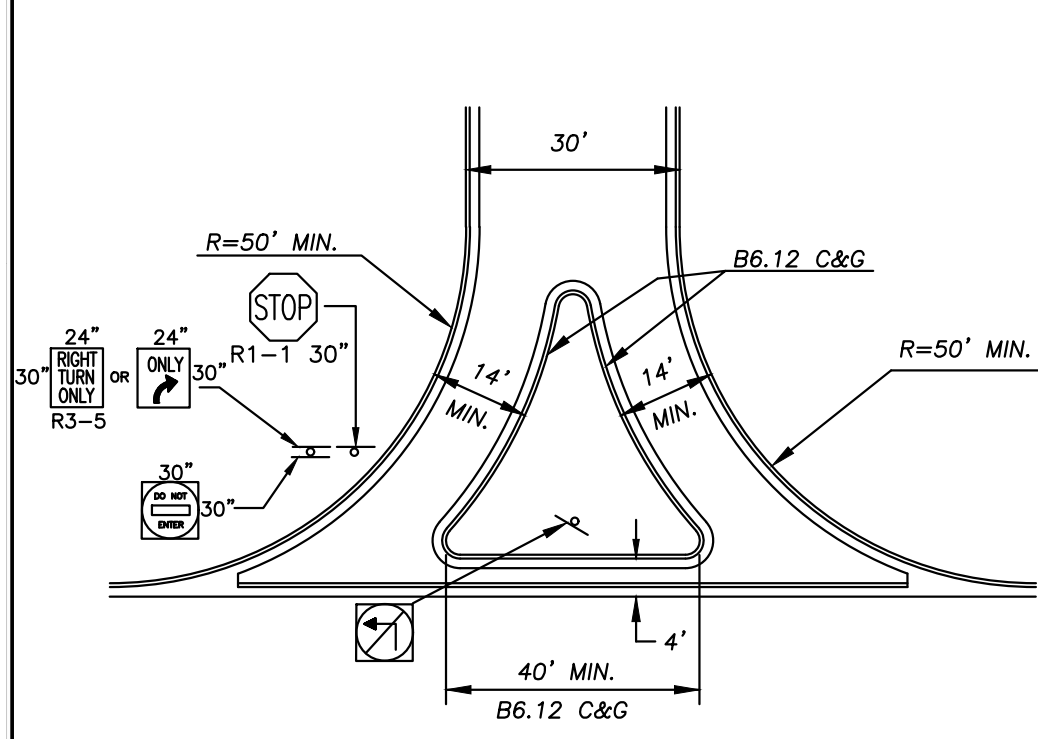


1. REMOVE ALL TOPSOIL. PLACE CONCRETE ON 4" MIN. COMPACTED CA-6 STONE.
2. A CONTROL (CONTRACTION) JOINT SHALL BE TOOLED AT 5' INTERVALS AT THE TIME OF PLACEMENT. EXPANSION JOINTS WITH 1/2" BITUMINOUS FILLER MATERIAL SHALL BE SPACED AT INTERVALS SPECIFIED BELOW, AND AT 2.5' EITHER SIDE OF UTILITY STRUCTURES.
3. SIDEWALK SHALL BE INSTALLED THROUGH ALL RESIDENTIAL AND NON-RESIDENTIAL ACCESS DRIVES WITHIN THE VILLAGE'S RIGHT OF WAY. SIDEWALK SHALL BE 6" THICK MIN. AT RESIDENTIAL DRIVEWAY CROSSINGS AND AT SIDEWALK RAMPS, 8" THICK MIN. AT NON-RESIDENTIAL DRIVEWAYS, AND 5" MIN. OTHER AREAS.
4. CONCRETE SHALL BE CLASS SI.
5. PLACE 3/4" PREFORMED BIT. FILLER MATERIAL AT THE FULL DEPTH OF CONCRETE AT EDGES ABUTTING SIDEWALKS, CONCRETE DRIVES OR PRIVATE SIDEWALKS.

POUR TEMP. (DEG. F.)	EXPANSION JOINT (SPACING FT.)
40 MIN.....	70'
45.....	75'
50.....	80'
55.....	90'
60.....	95'
65.....	105'
70.....	115'
75.....	125'
80.....	145'
85.....	160'
90 MAX.....	190'

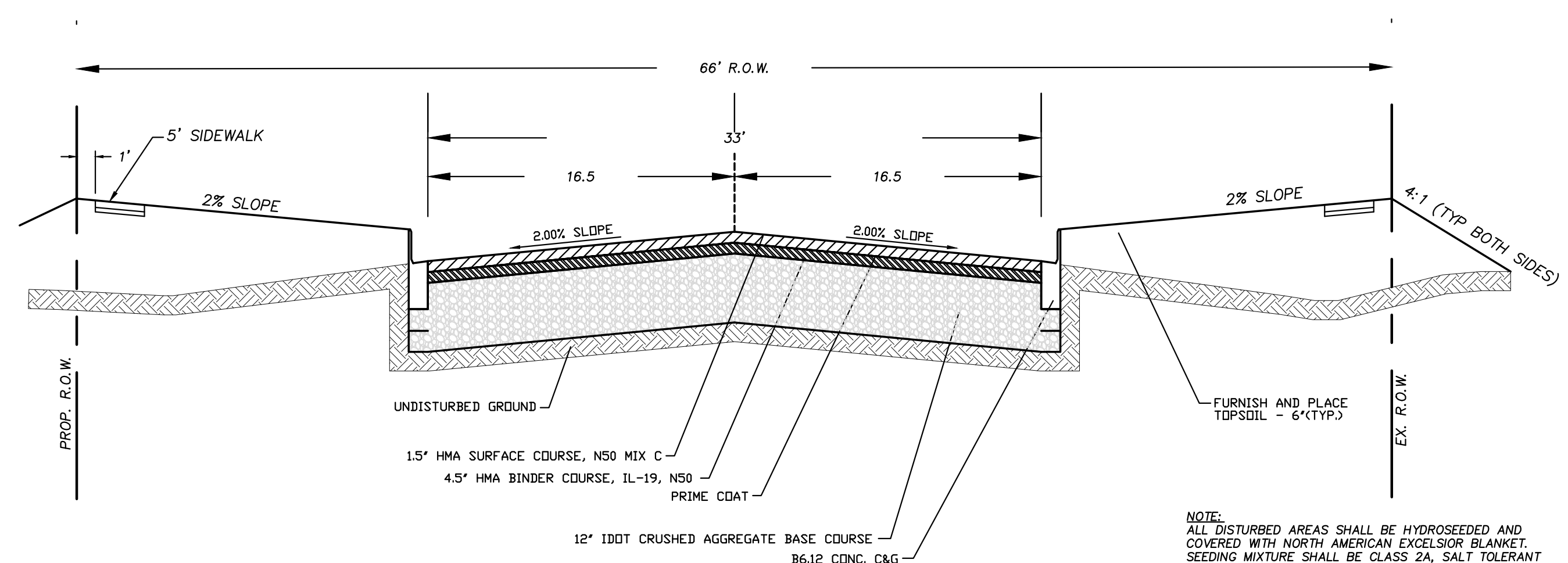
TYPICAL SIDEWALK SECTION

Village of Sugar Grove 10 Municipal Drive Sugar Grove, Illinois 60054 Phone: (830) 391-7200	SCALE: N.T.S. DATE: 5/18/07	FOLDER: SG-RD	DRAWING NUMBER: 13	DRAWN BY: CLN	REVIEWED: 05/30/12
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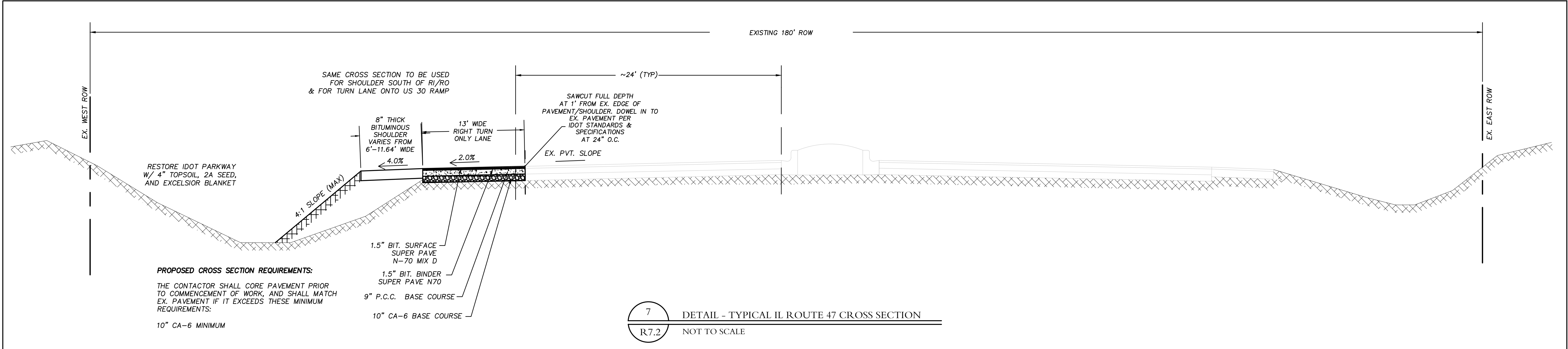
5 RIGHT-IN/RIGHT-OUT R7.2 NOT TO SCALE

FILE: PV-RIGHT-IN_RIGHT-OUT1.DWG



6 DETAIL - TYPICAL DIVISION DRIVE CROSS SECTION R7.2 NOT TO SCALE

NOTE:
ALL DISTURBED AREAS SHALL BE HYDROSEEDING AND COVERED WITH NORTH AMERICAN EXCELSIOR BLANKET. SEEDING MIXTURE SHALL BE CLASS 2A, SALT TOLERANT ROADSIDE MIXTURE.



7 DETAIL - TYPICAL IL ROUTE 47 CROSS SECTION R7.2 NOT TO SCALE

REVISIONS

NO.	DATE	DESCRIPTION

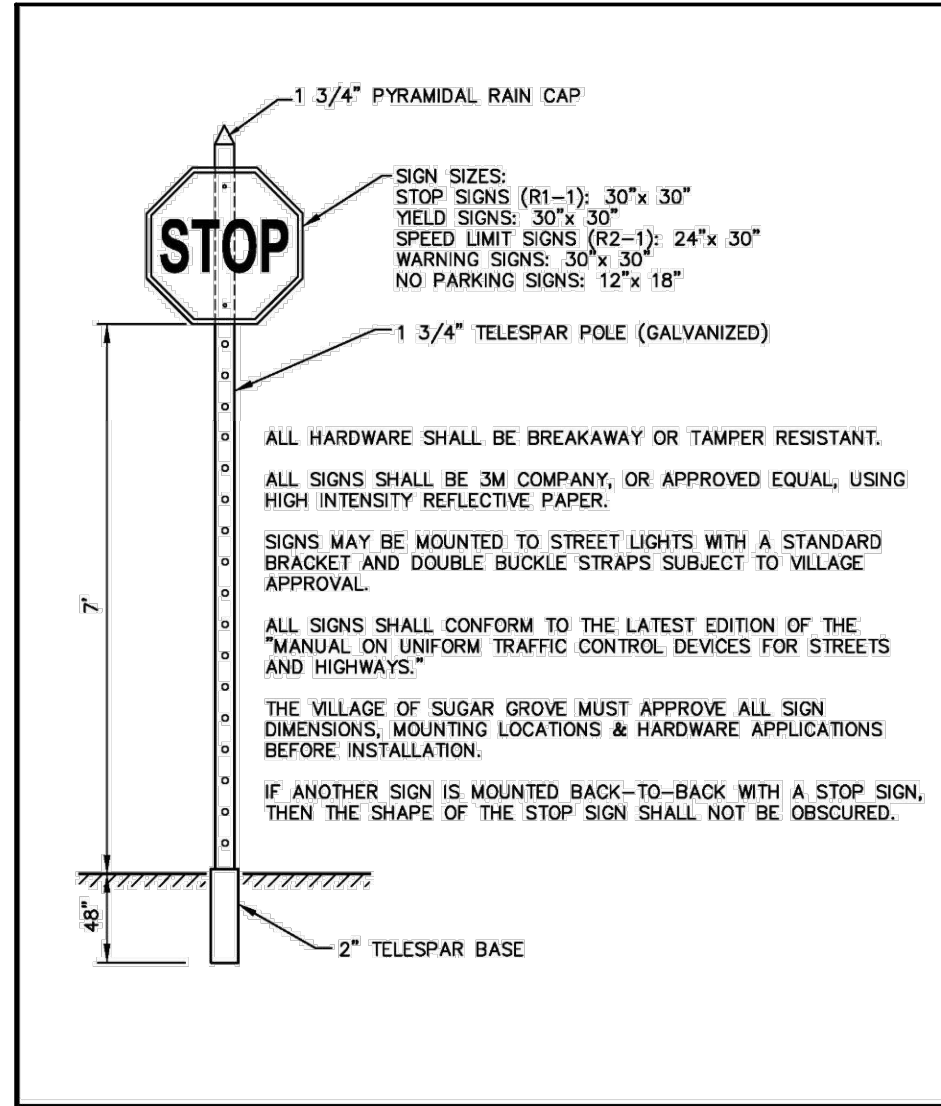
SITE DETAILS

DIVISION DRIVE IMPROVEMENTS SWC IL 47 & GALENA BLVD SUGAR GROVE, ILLINOIS

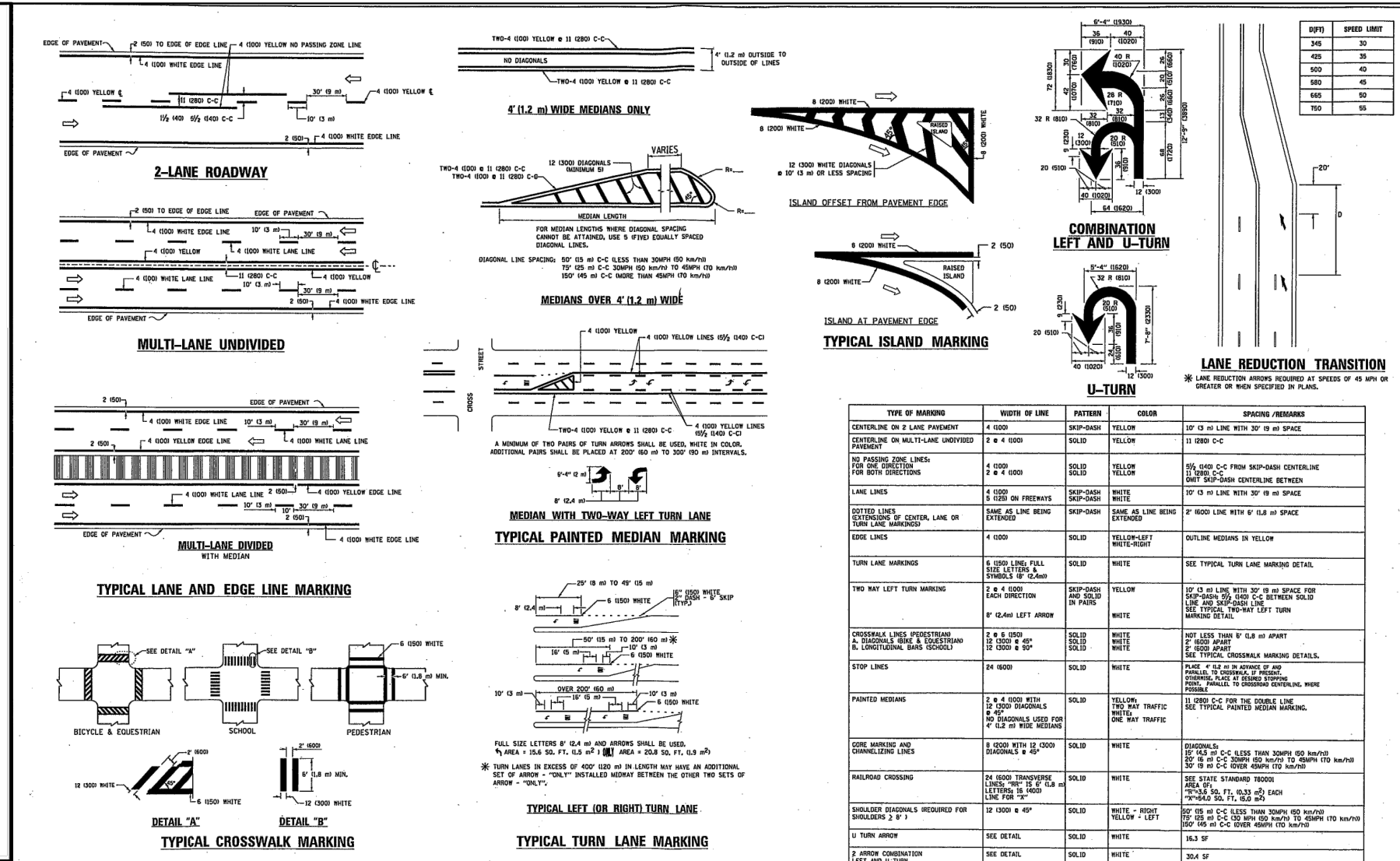
Craig R. Knoche & Associates *Civil Engineers, P.C.*
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DATE: 6/17/21
FILE: 20-036 R70
JOB NO: 20-036

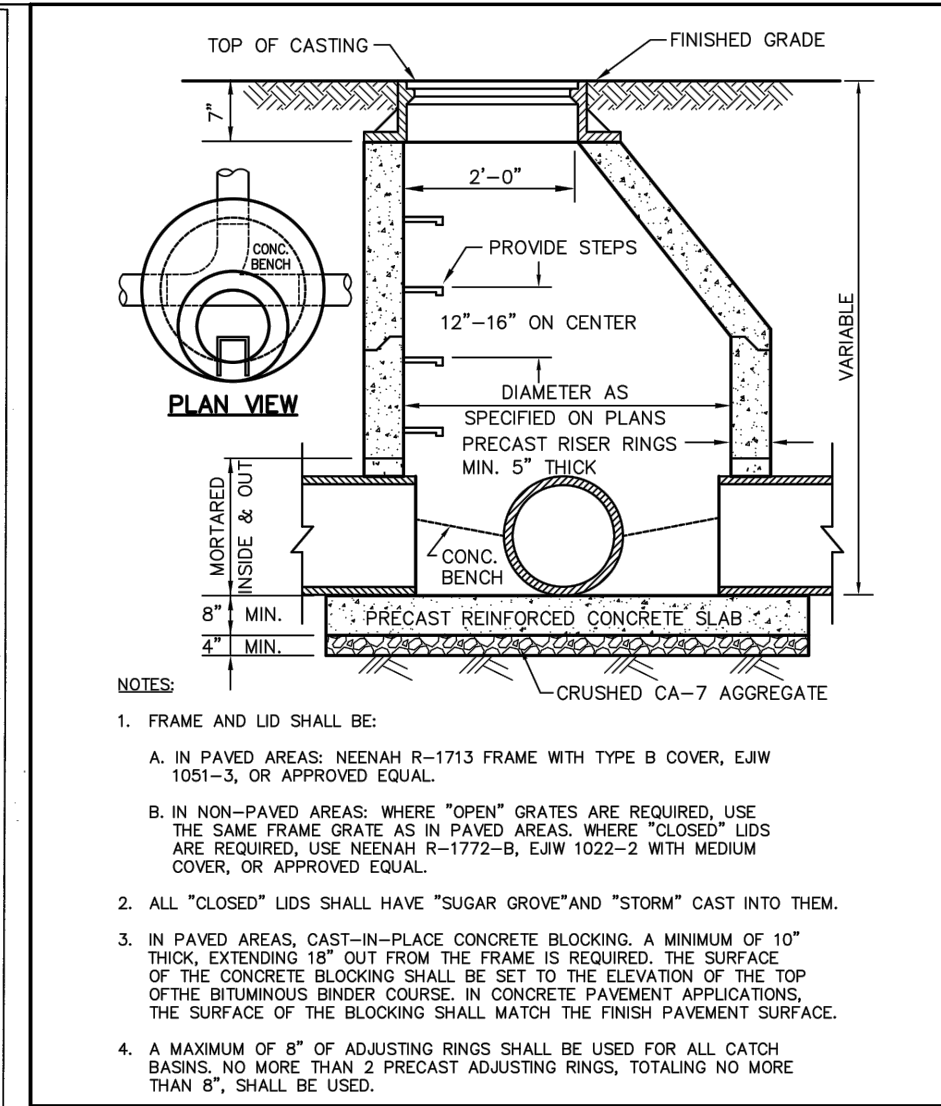
R7.2
SHEET NO.



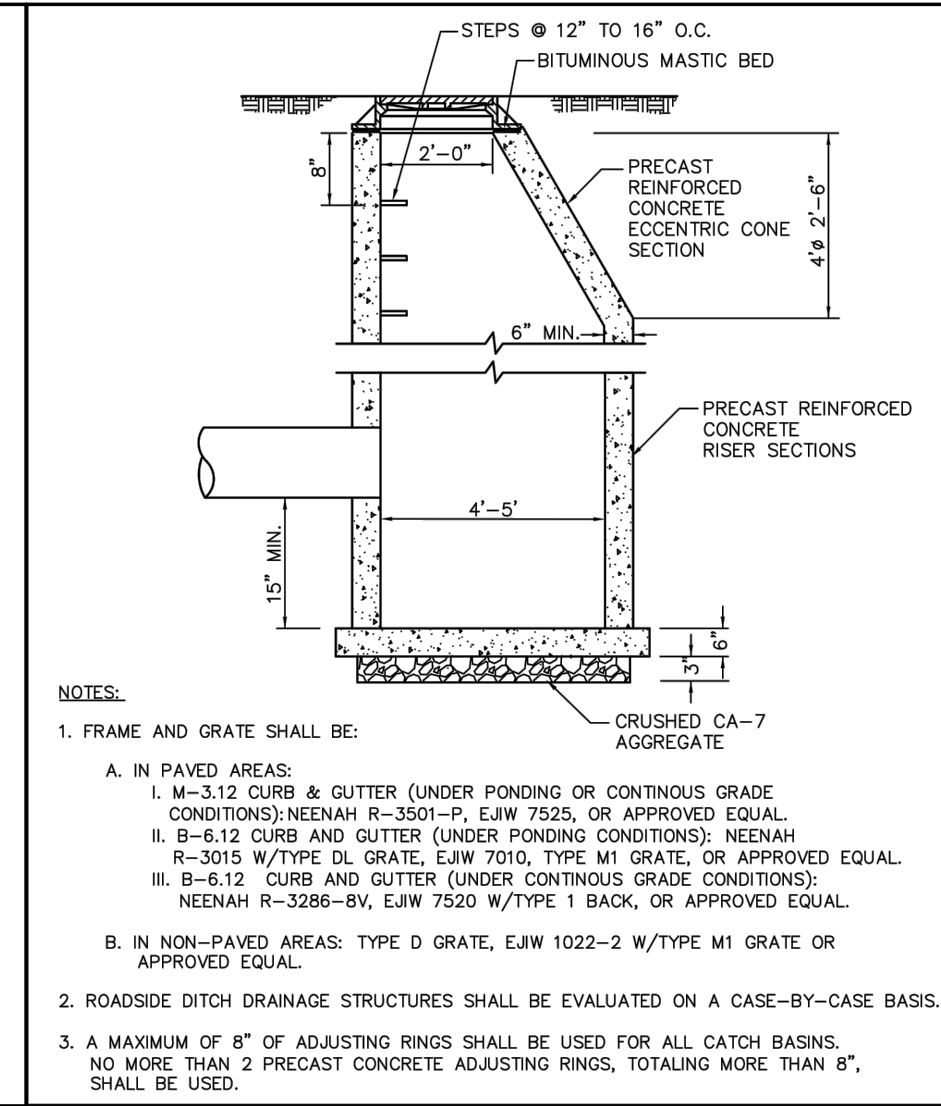
REGULATORY SIGNS				
Village of Sugar Grove 10 Municipal Drive Sugar Grove, Illinois 60054 Phone: (630) 466-4507	SCALE N.T.S.	FOLDER SG-SI	DRAWING NUMBER 01	DRAWN BY BLM
	DATE 11/29/17			REVIEWED



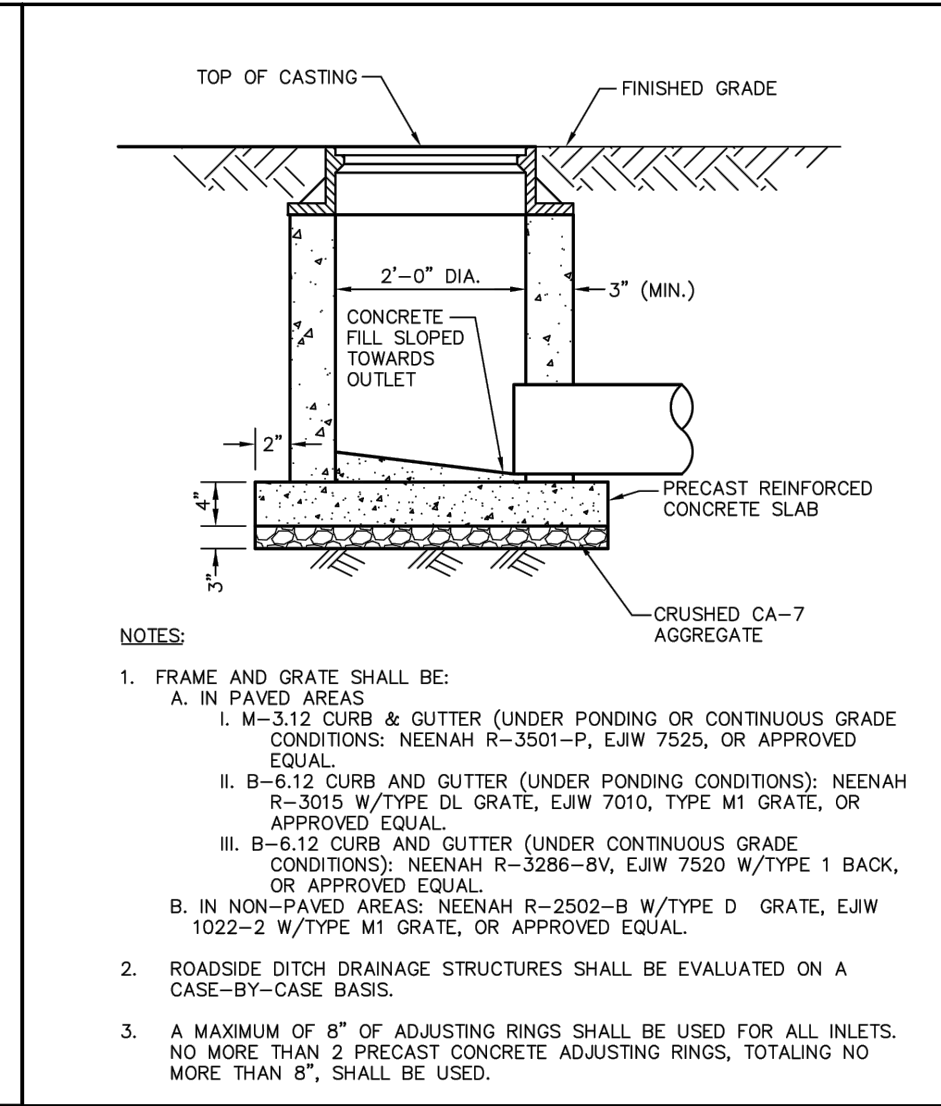
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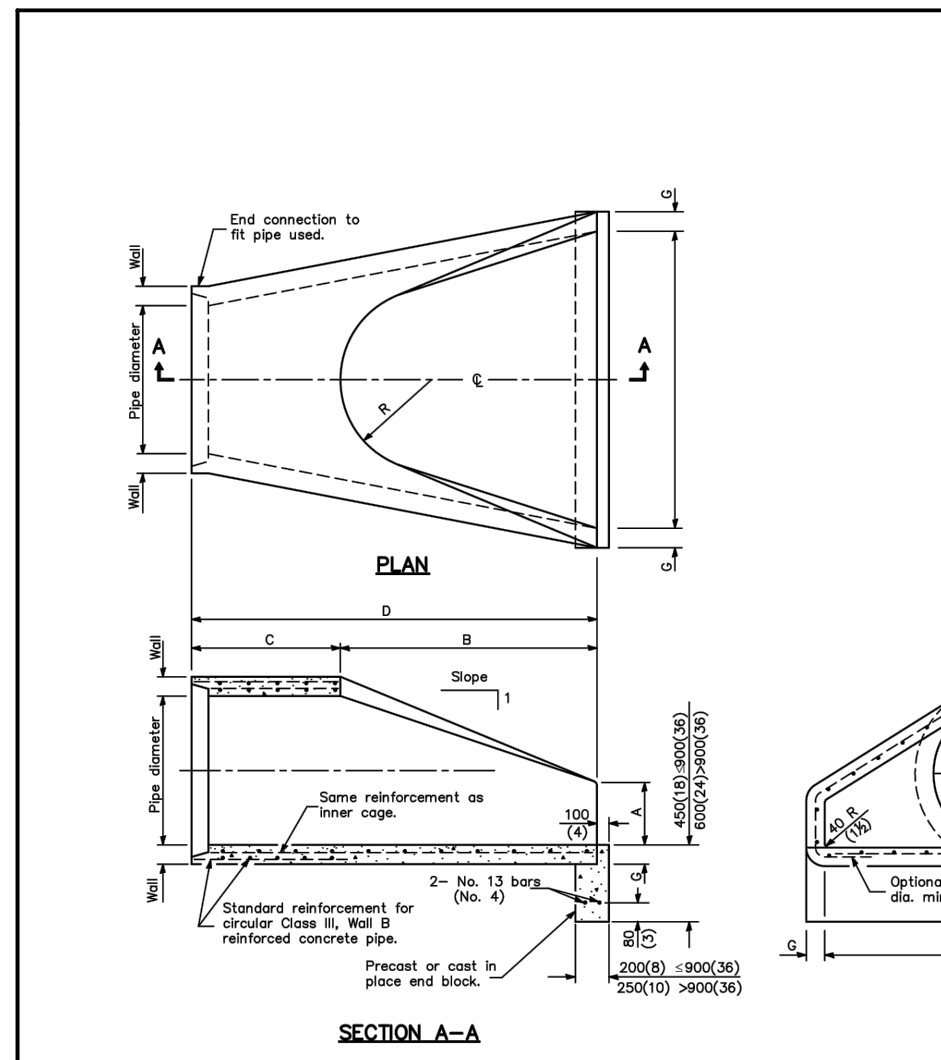
STORM MANHOLE TYPE A (CIRCULAR)				
Village of Sugar Grove 10 Municipal Drive Sugar Grove, Illinois 60054 Phone: (630) 466-4507	SCALE N.T.S.	FOLDER SG-ST	DRAWING NUMBER 01	DRAWN BY BLM
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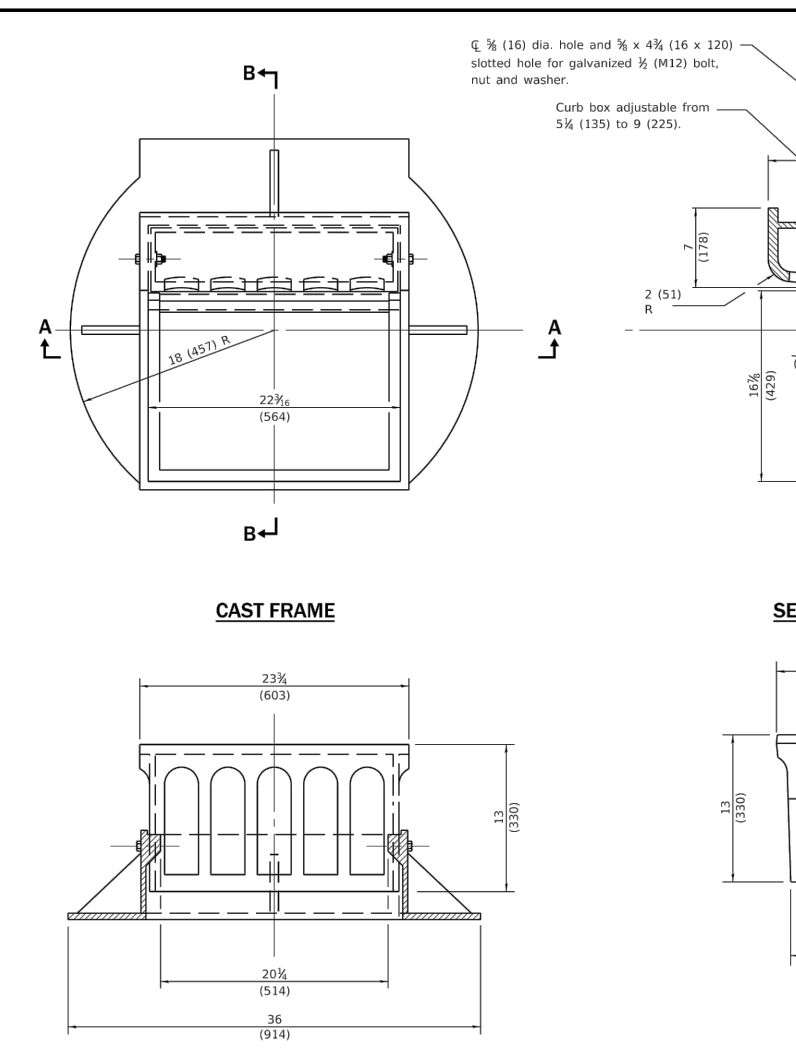
CATCH BASIN - TYPE A				
Village of Sugar Grove 10 Municipal Drive Sugar Grove, Illinois 60054 Phone: (630) 466-4507	SCALE N.T.S.	FOLDER SG-ST	DRAWING NUMBER 02	DRAWN BY BLM
	DATE 8/14/07			REVIEWED



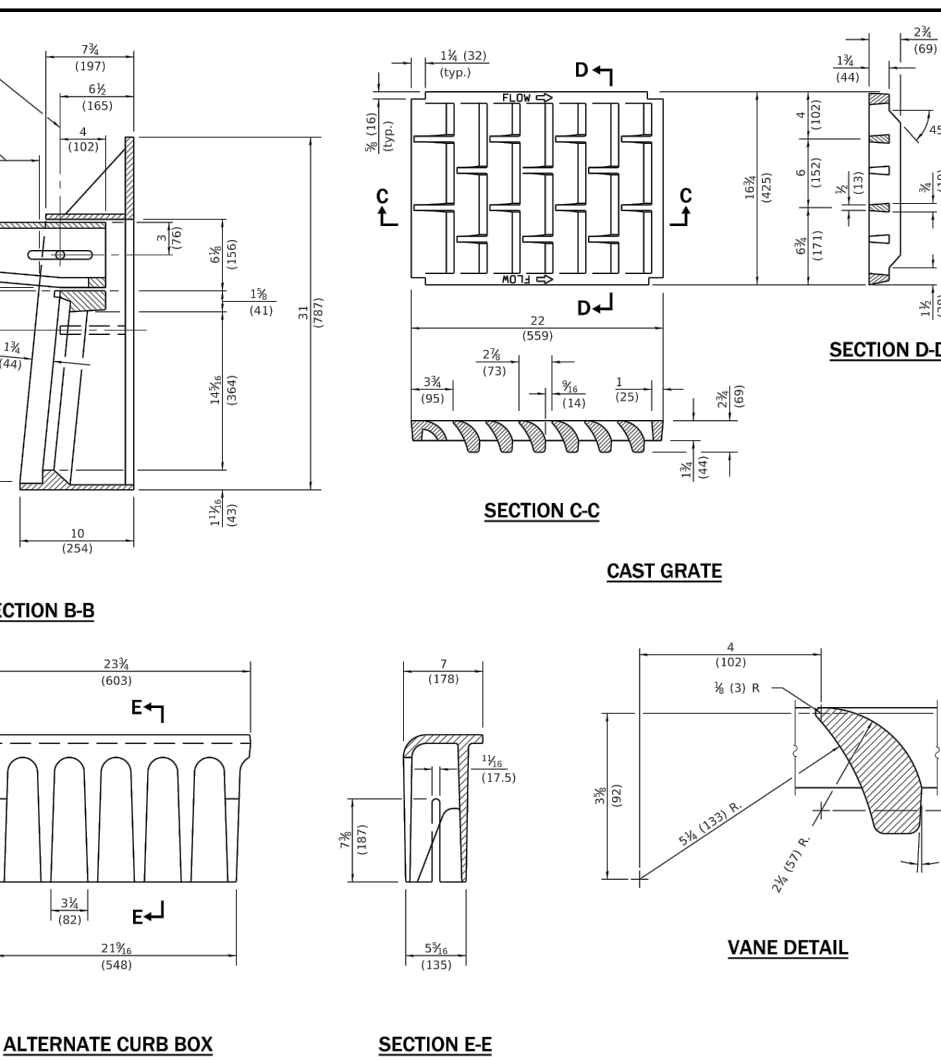
INLET - TYPE A				
Village of Sugar Grove 10 Municipal Drive Sugar Grove, Illinois 60054 Phone: (630) 466-4507	SCALE N.T.S.	FOLDER SG-ST	DRAWING NUMBER 05	DRAWN BY CLN
	DATE 8/14/07			REVIEWED



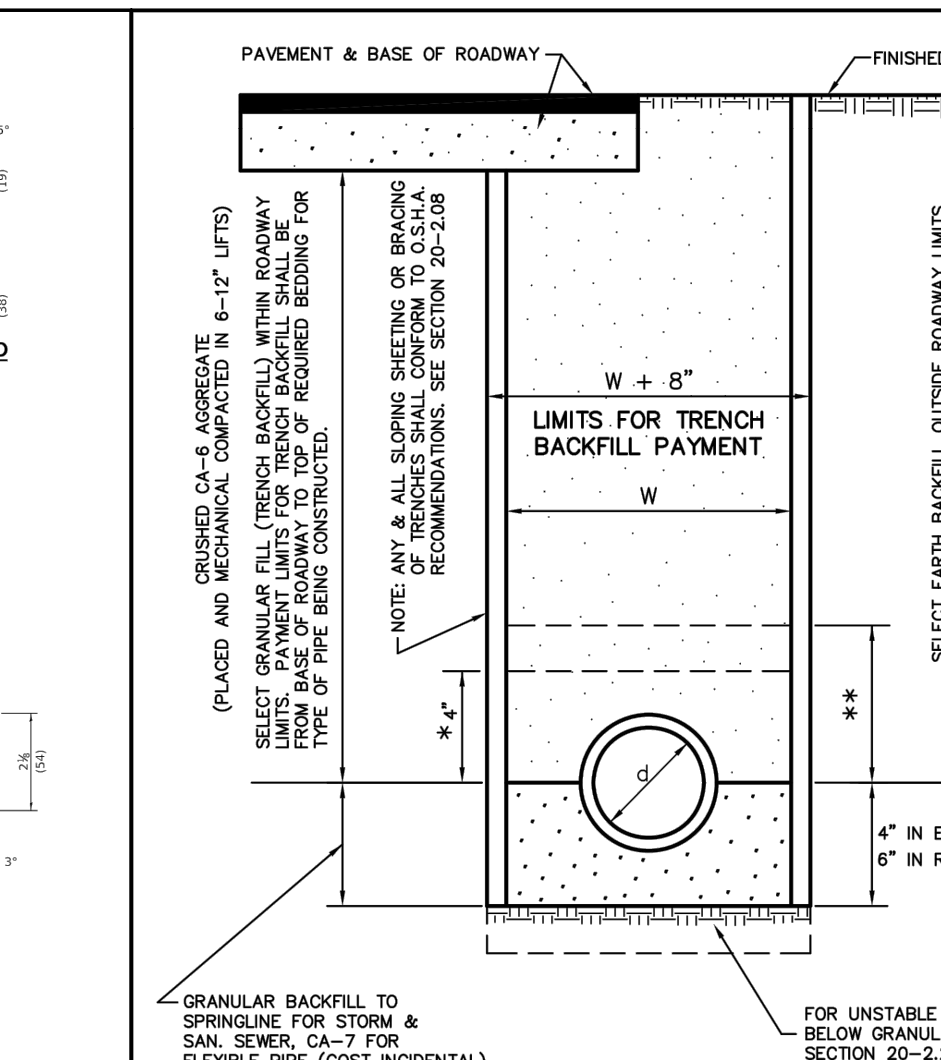
FLARED END SECTION				
Village of Sugar Grove 10 Municipal Drive Sugar Grove, Illinois 60054 Phone: (630) 466-4507	SCALE N.T.S.	FOLDER SG-ST	DRAWING NUMBER 08	DRAWN BY BLM
	DATE 01-04-08			REVIEWED



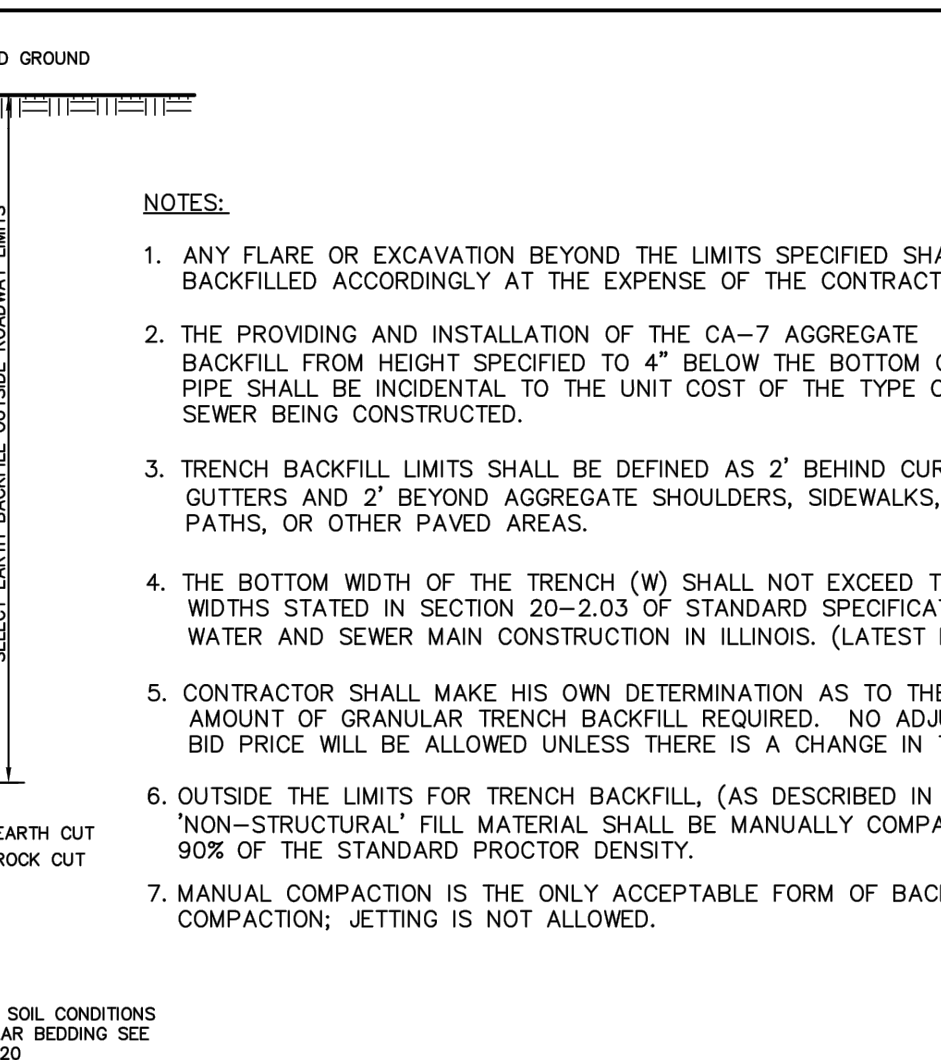
PRECAST REINFORCED CONCRETE FLARED END SECTION				
Village of Sugar Grove 10 Municipal Drive Sugar Grove, Illinois 60054 Phone: (630) 466-4507	SCALE N.T.S.	FOLDER SG-ST	DRAWING NUMBER 08	DRAWN BY BLM
	DATE 01-04-08			REVIEWED



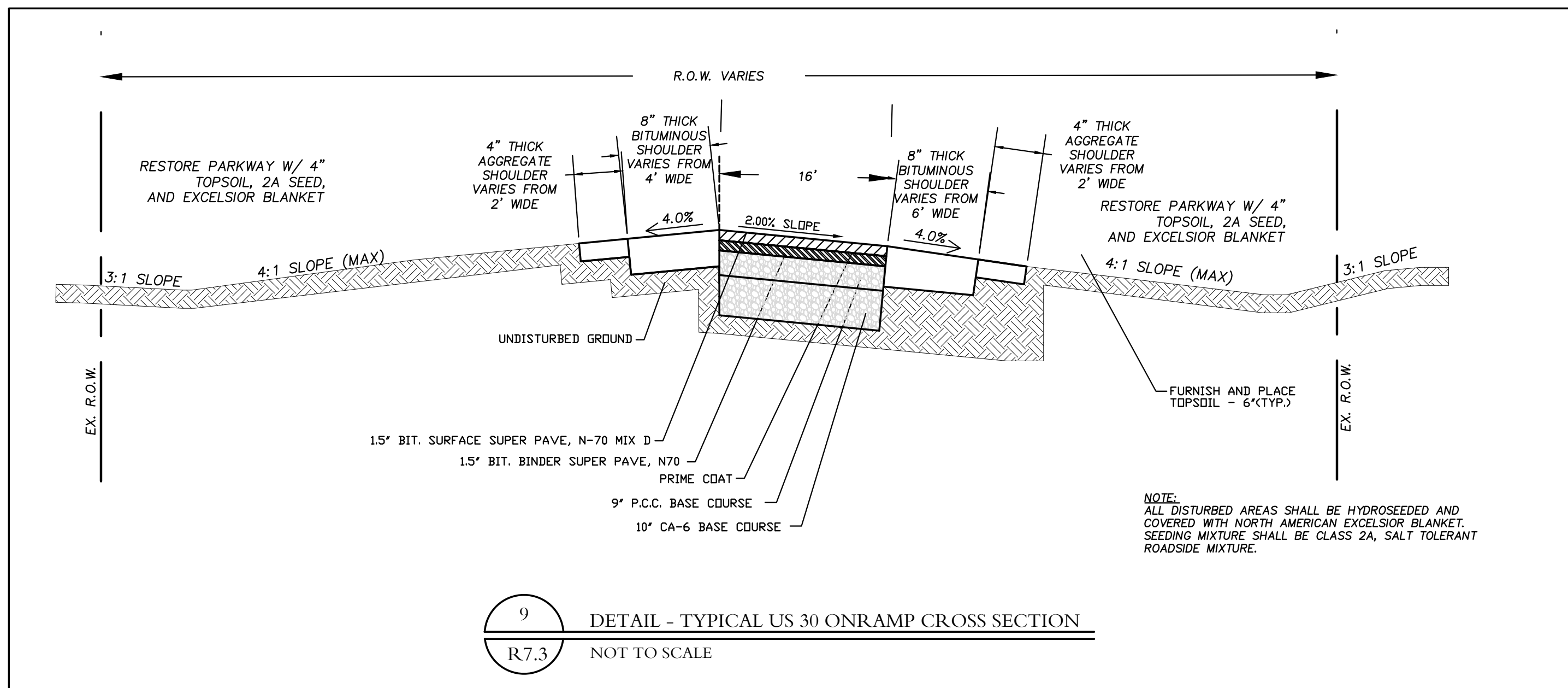
STORM MANHOLE TYPE A (CIRCULAR)				
Village of Sugar Grove 10 Municipal Drive Sugar Grove, Illinois 60054 Phone: (630) 466-4507	SCALE N.T.S.	FOLDER SG-ST	DRAWING NUMBER 01	DRAWN BY BLM
	DATE 8/14/07			REVIEWED



CATCH BASIN - TYPE A				
Village of Sugar Grove 10 Municipal Drive Sugar Grove, Illinois 60054 Phone: (630) 466-4507	SCALE N.T.S.	FOLDER SG-ST	DRAWING NUMBER 02	DRAWN BY BLM
	DATE 8/14/07			REVIEWED



INLET - TYPE A				
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9
R7.3
DETAIL - TYPICAL US 30 ONRAMP CROSS SECTION
NOT TO SCALE

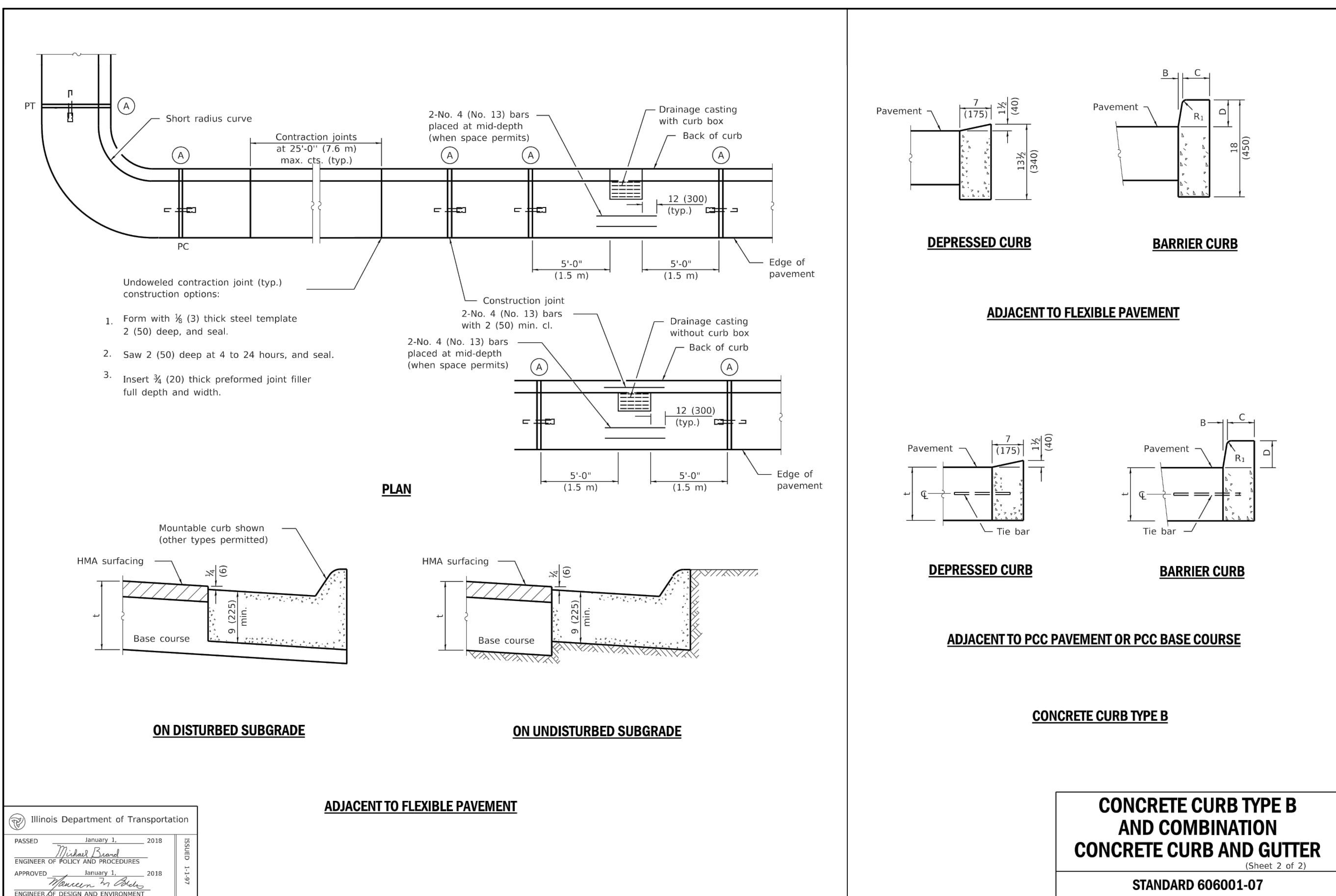
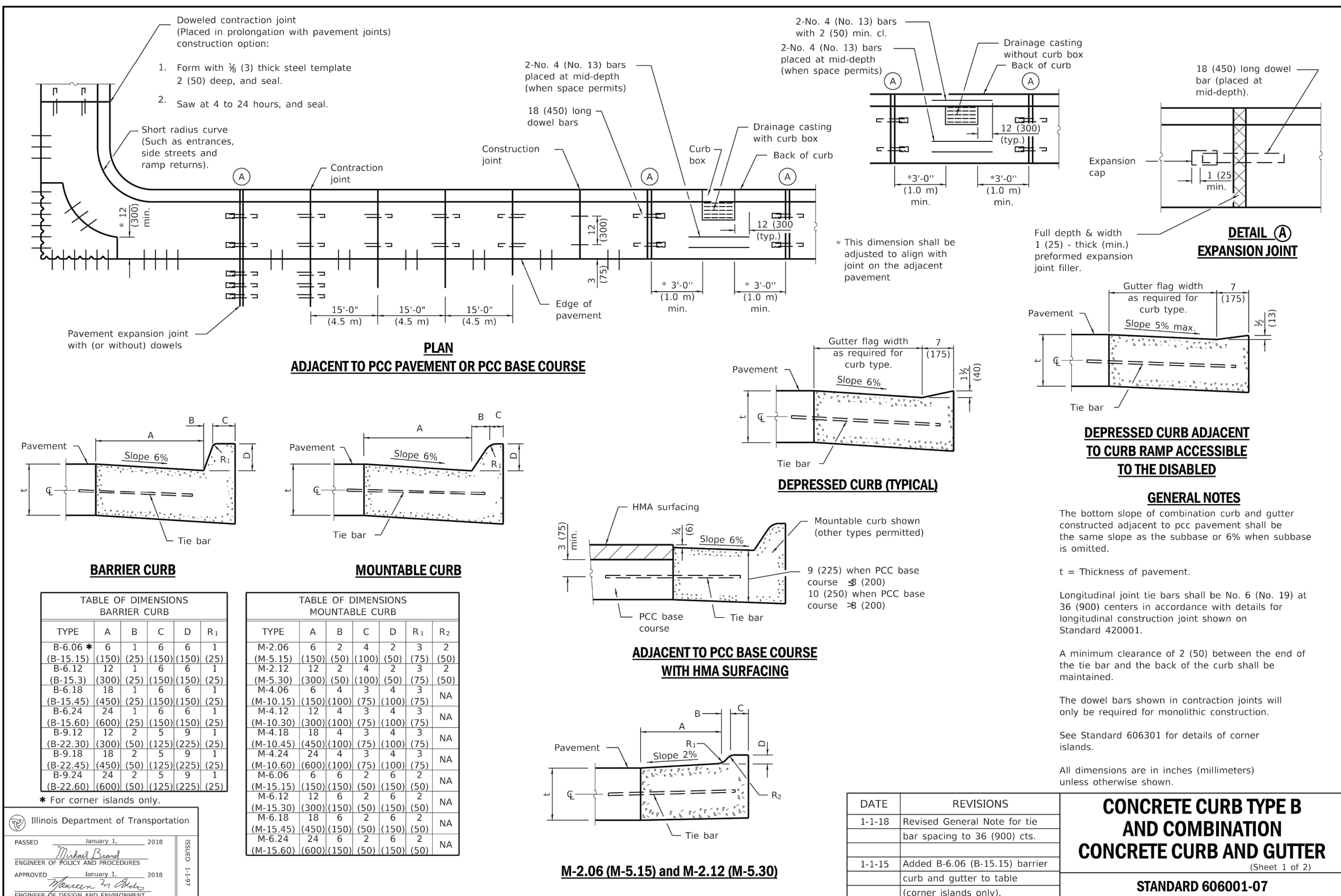
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NO.	DATE	DESCRIPTION	

SITE & UTILITY DETAILS

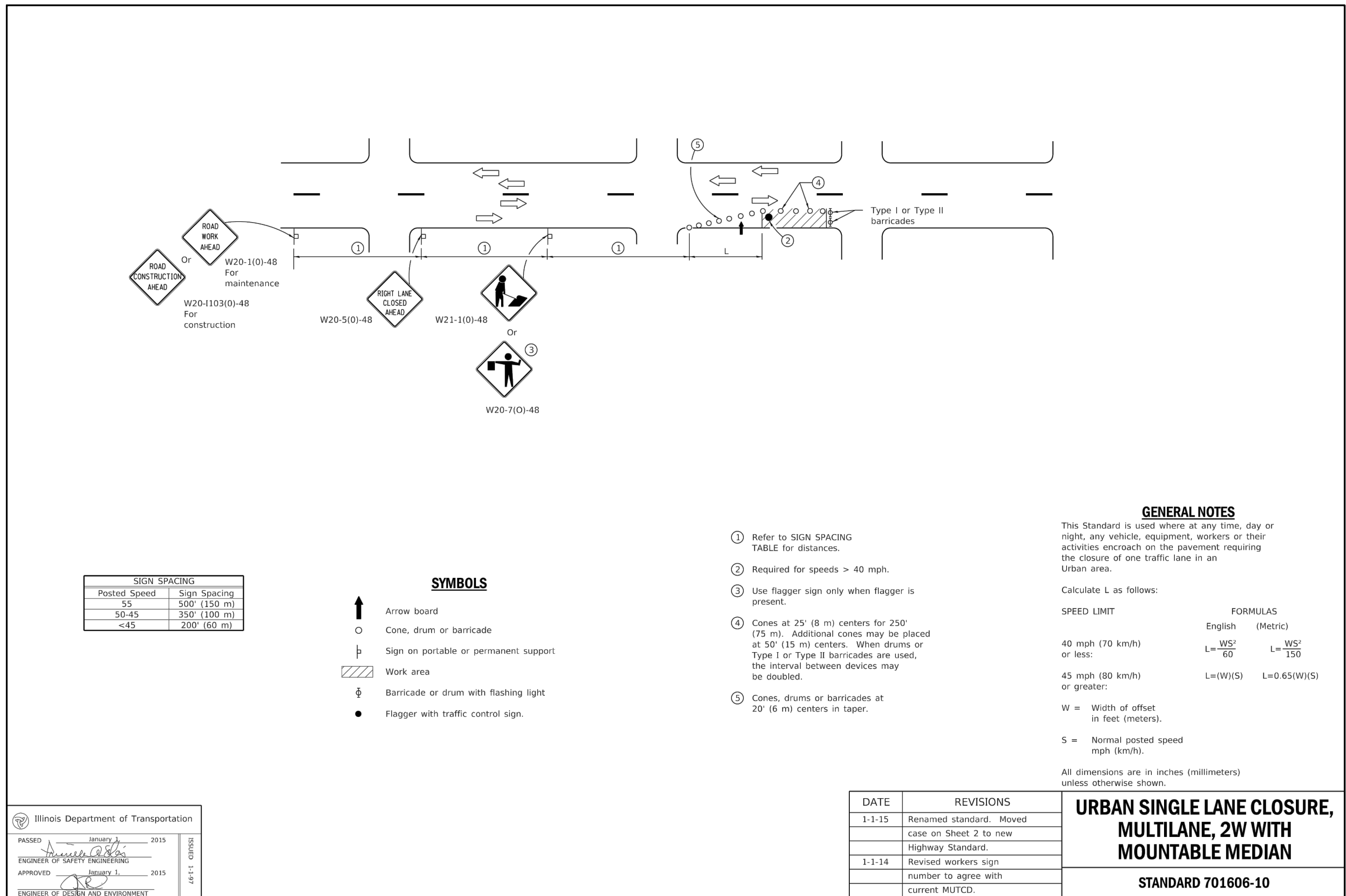
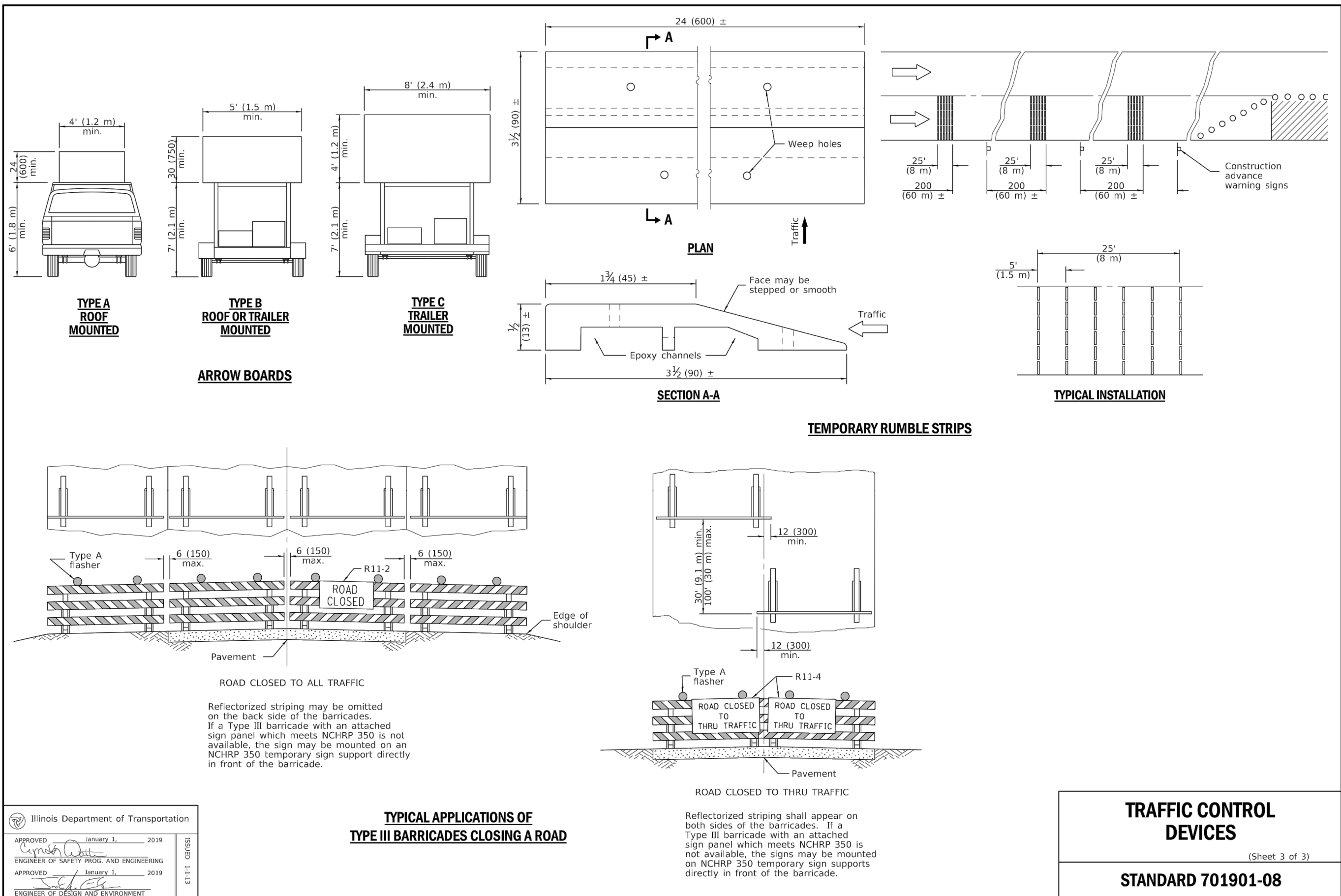
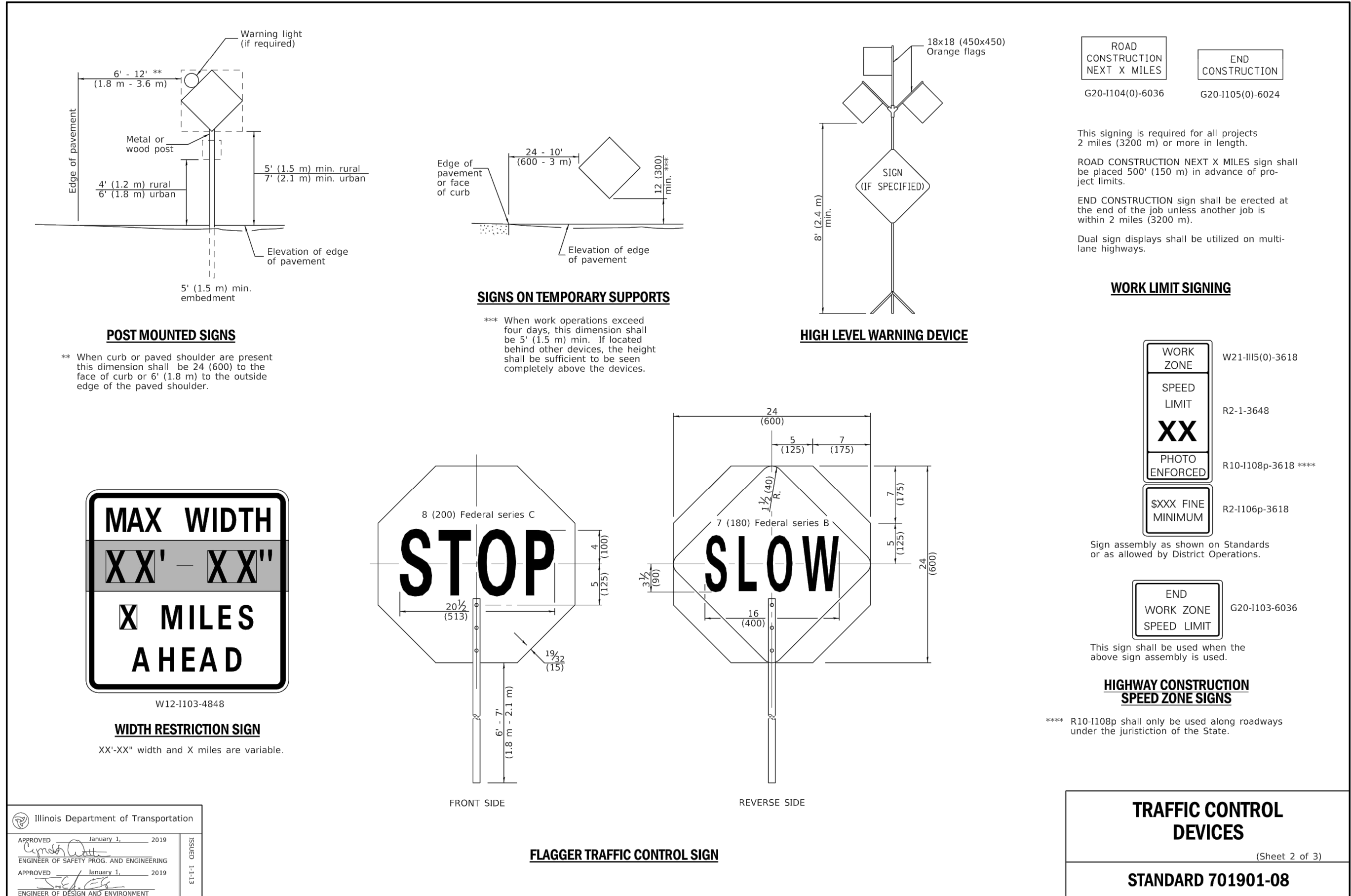
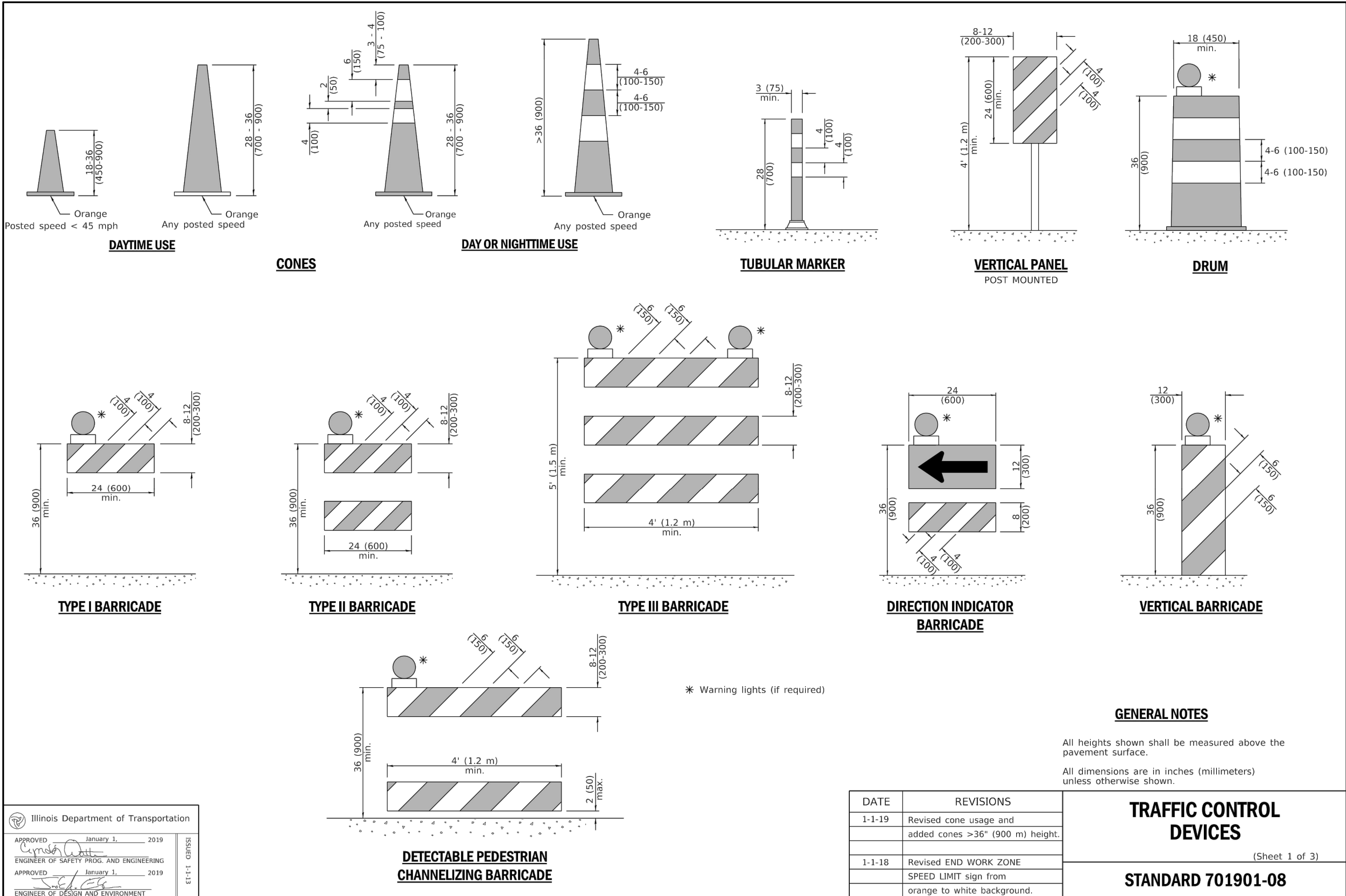
DIVISION DRIVE IMPROVEMENTS SWC IL 47 & GALENA BLVD SUGAR GROVE, ILLINOIS

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DATE: 6/17/21	FILE: 20-036 R70	JOB NO: 20-036	SHEET NO. R7.3
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	Civil Engineers, P.C.		FILE: 20-036 R70	
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				SHEET NO.



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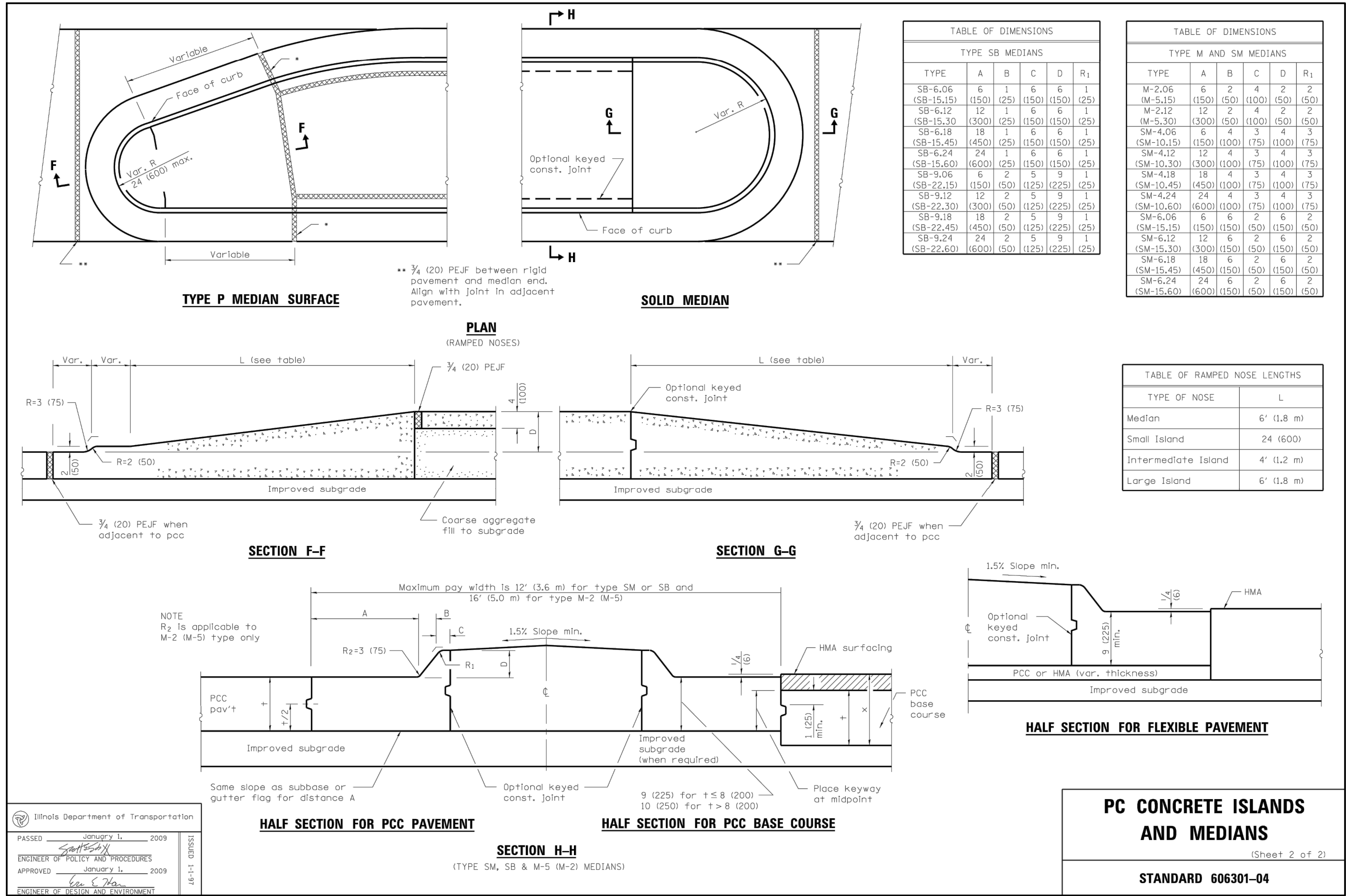
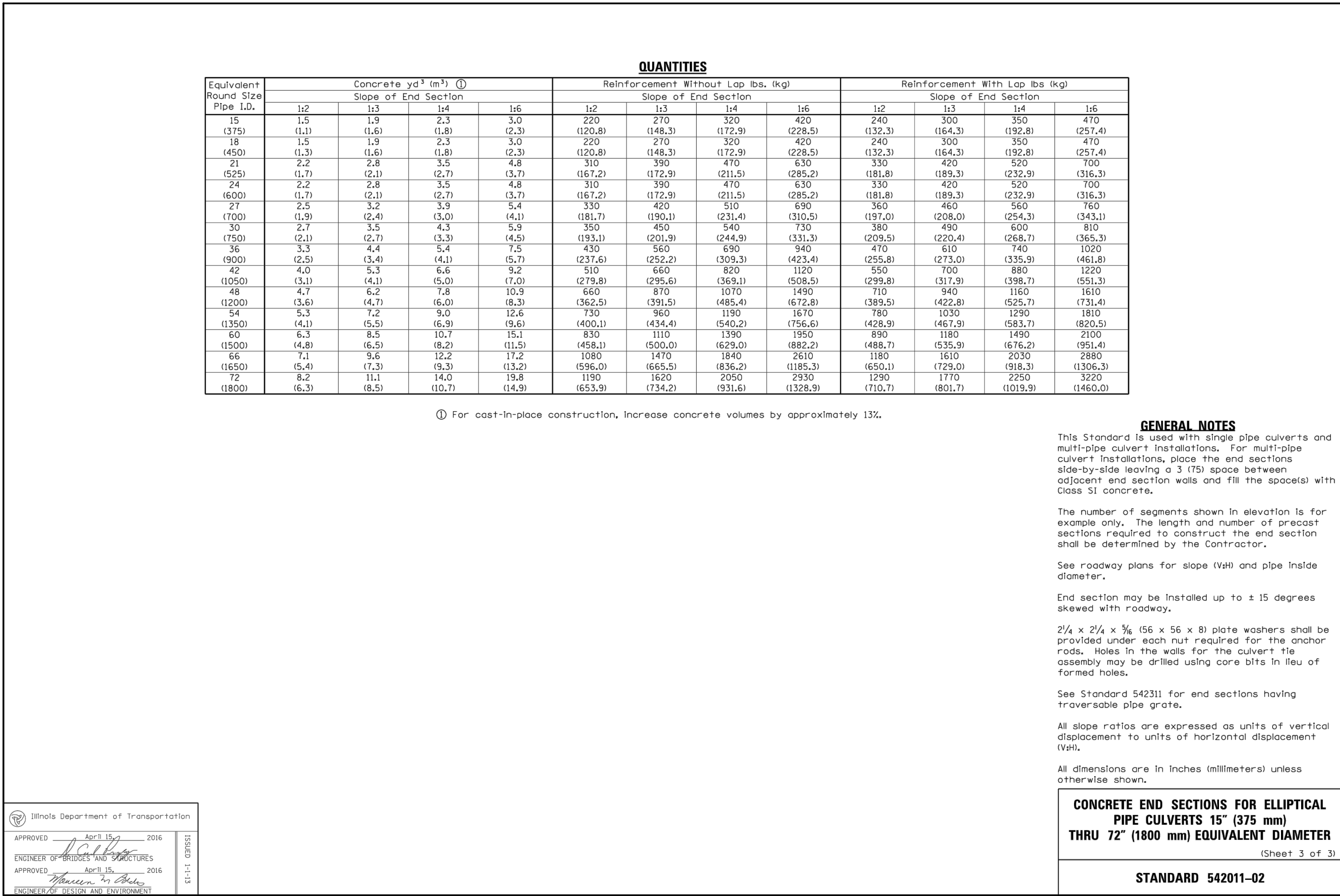
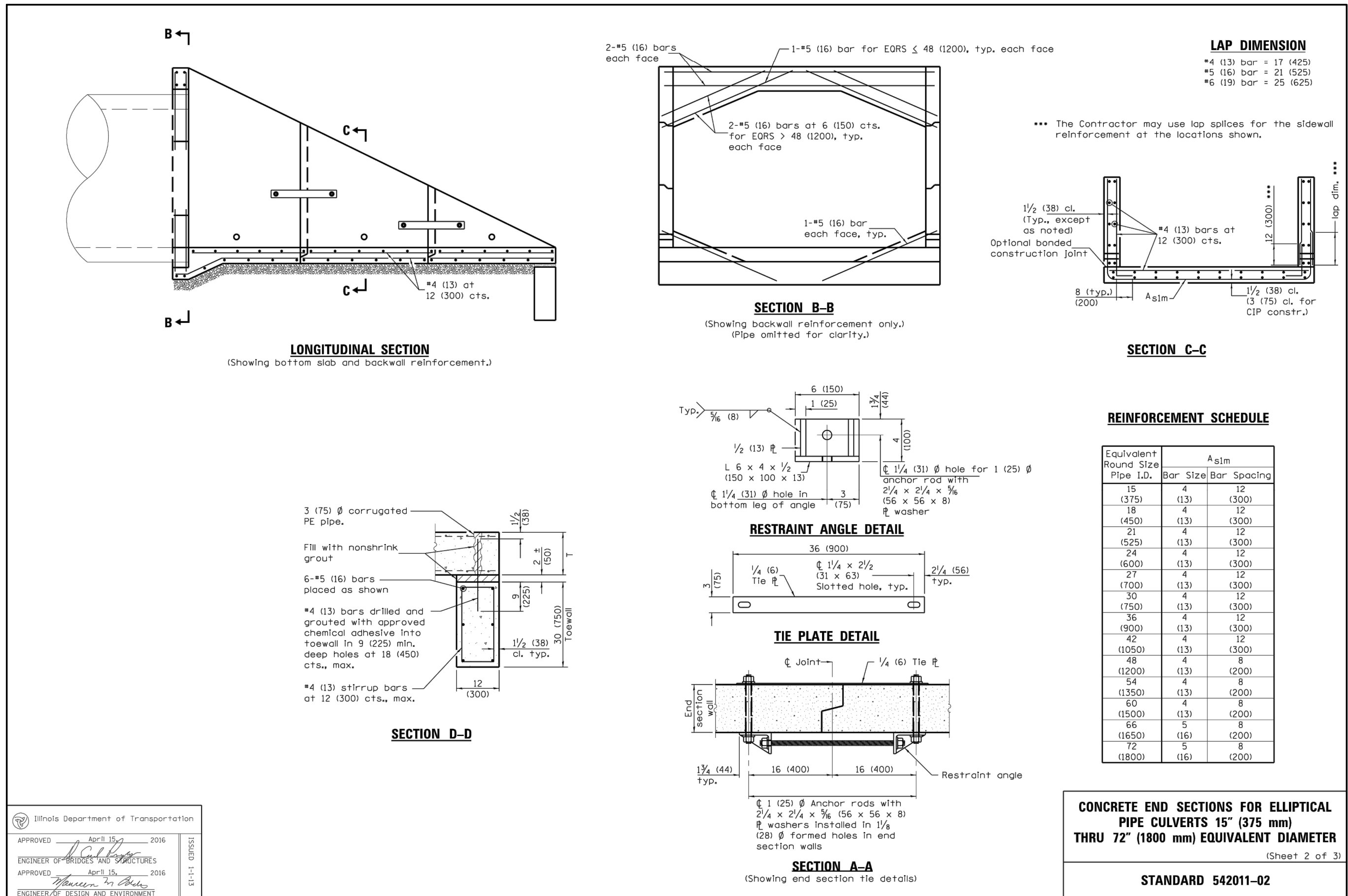
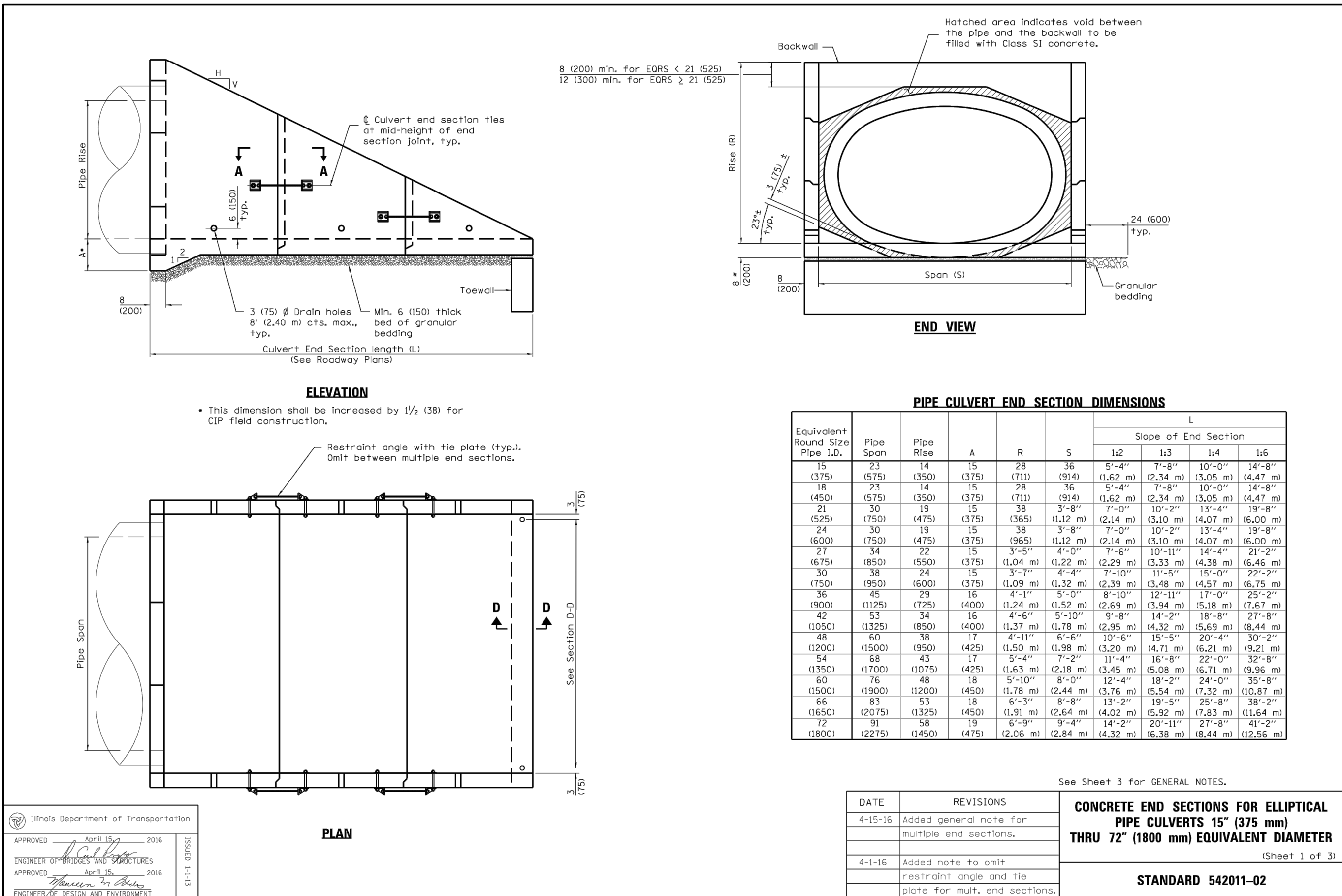
IDOT
DETAILS

DIVISION DRIVE IMPROVEMENTS
SWC IL 47 & GALENA BLVD
SUGAR GROVE, ILLINOIS

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R7.5



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IDOT DETAILS

DIVISION DRIVE IMPROVEMENTS
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JOB NO: 20-036
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R7.6