

Section 4(f) De Minimis Documentation
Kloempken Prairie and Big Bend Lake
Forest Preserve District of Cook County

IL ROUTE 58 DRAINAGE IMPROVEMENTS



P-91-290-13

City of Des Plaines
Cook County, Illinois

IDOT – Division of Highways – District One – Region One

November 2015

**Section 4(f) *De Minimis* Documentation
Kloempken Prairie and Big Bend Lake
Forest Preserve District of Cook County**

1. Project Description

- a. Project Name:** Illinois Route 58 (IL 58) Drainage Improvements
- b. Project Number (State and Federal):** P-91-290-13
- c. Project Termini:** 500 feet west of the CN Railroad (CNRR) to 700 feet east of the CNRR in the City of Des Plaines, Cook County, Illinois
- d. Project Type:** Drainage improvements consisting of flood control berm restoration, replacing a section of the Pump Station No. 17 (PS 17) storm sewer outfall, relocation of the PS 17 access drive, and construction of an additional storm sewer system along IL 58.
- e. Project Length:** Approximately 4,400 lineal feet (0.83 miles).

Purpose and need of the Project: IL 58 is a consistent source of flooding, due to the depressed roadway condition and the proximity of the Des Plaines River floodplain and floodway. The existing berms were originally constructed in 1930, at the time when IL 58 was depressed under the CNRR. The berms provide overtopping flood protection to the depressed section of IL 58, preventing additional overflow into PS 17. Over time the existing berms have eroded and/or settled, allowing offsite flows to spill into the PS 17 tributary area overwhelming the system which is not designed to withstand offsite runoff. The berms are proposed to be raised to their original elevations. Additionally, the existing access drive from IL 58 to PS 17 is proposed to be relocated to the east and elevated above flood elevations to improve access to the facility during large storm events. In order to reinstate the berms, tree removal will be required.

- f. NEPA Class of Action:** Categorical Exclusion Group II
- g. Project Status:** The Illinois Department of Transportation (Department) is nearing completion of a preliminary engineering and environmental study (Phase I). The anticipated Phase I design approval date is December 2015. Phase II (Contract Plan Preparation and Land Acquisition) and Phase III (Construction) are included in the Department's FY 2016-2021 Proposed Highway Improvement Program. The current engineering efforts are targeted to enable a contract letting in the early years of our current multi-year program contingent upon plan readiness, land acquisition, and funding availability through our future annual legislative appropriations.

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2. Section 4(f) Resources

- a. Resource Type:** Forest preserves
- b. Resource Name:** Kloempken Prairie and Big Bend Lake
- c. Official with Jurisdiction (OWJ):** Forest Preserve District of Cook County (FPDCC).
- d. Description of the Role/Significance in the community:**
 - i. Kloempken Prairie:** The history of Kloempken Prairie exhibits an ideal example of sustainable land use. The preserve was once a savanna, a prairie sprinkled with oak and hickory trees. During the 1800's, farmers cleared and plowed much of the land for agricultural use. In the 1940's, the preserve was acquired by the FPDCC. Hard work and dedication by many volunteers planting native seeds and clearing non-native weeds has expanded the native plant life of Kloempken Prairie into the ecosystem it is today. The preserve is located along the north side of IL 58, extending east of College Drive to just west of the CN Railroad. This open space land acts as a year round place of recreation for the community. It provides forest and prairie refuge offering a range of native trees, the Des Plaines River trails and wildlife viewing.
 - ii. Big Bend Lake:** This Lake was created in 1958 in order to provide fill for the new Tri-State Tollway. Big Bend Lake consists of a 27 acre site that provides a 27-foot deep lake containing a spillway to the Des Plaines River during large storm events. This site consists of sparse sections of vegetation and/or trees and is free of real aquatic vegetation. Big Bend Lake contains a boat ramp and allows for the use of non-motorized boats. Big Bend Picnic Grove includes a parking lot, shelter and picnic tables, as well as hiking trails.

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3. Description of Intended Section 4(f) Resource Use

a. Type and Acres of Impact: 0.477 acres

i. Kloempken Prairie

- Temporary Easement: 0.071 acres for berm restoration and grading. (See Attachment A-1 for more details)

ii. Big Bend Lake

- Permanent Easement: 0.283 acres for the existing access drive to PS 17
- Temporary Easement: 0.123 acres for berm restoration and grading. (See Attachment A-1 for more details)

b. Existing function of the Impacted Acres: The impacted areas for temporary easements are located directly adjacent to IL 58, away from recreational uses and amenities, and contain berm embankment with trees and vegetation. The impacted area for the permanent easement is an existing access drive for pump station. All of the impacted areas are located within the Des Plaines River floodway and/or floodplain.

c. Description of the relationship of the impacted area to the Section 4(f) function and significance of the resource: The berm embankments and the existing access drive are located on FPDCC property which is not used for recreation. It is believed that the original berms were constructed around 1930, when the roadway underpass was constructed. All temporary grading easements are located directly adjacent to the proposed improvements, along the edge of the FPDCC property. For the relocation of the access drive, the majority of the proposed work will be within roadway right-of-way (ROW). The proposed improvements will be consistent with the functions and significance of the current land use and away from recreational uses. The proposed temporary and permanent easements are necessary to relocate the access drive to PS 17 further east, to increase the elevation of the access drive, improve access during flooding, and also to reduce flooding in the area (by reinstating the original design elevations of the berms).

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4. Description of Efforts to Avoid, Minimize, and Mitigate or Enhance Resource

a. Avoidance and minimization efforts made and benefits to resource:

The proposed improvements include restoring the flood control berms, located along the north and south sides of IL 58, to their original elevations. The berms have eroded due to flooding or settled over time. Since FPDCC properties are located along both sides of IL 58, shifting the proposed improvements could not be implemented. Additionally, replacing the existing pump station to provide greater pumping capacity cannot be considered. The pump station outlets into the Des Plaines River, a constant source of flooding and the pumping capacity cannot increase. If increased capacity was provided, stormwater detention would be required and impacts to the FPDCC would be greater. However; several alternatives were evaluated to minimize impacts to the FPDCC properties.

Berm Alternative No. 1 – Regrade Berms to Original Elevation

This alternative would reinstate the height of the berms to their original elevation of 632.55. As a result, temporary easements are required for grading during construction. A hydraulic report for PS 17, completed in 2005, concluded that reestablishing the berms to their original elevation provides less than 10-year protection to IL 58. The design standard is 100-year protection. This reduces the impacts adjacent to the improvement while still providing the benefit of decreased flooding. This is the preferred alternative because it minimizes impacts to FPDCC property. To further avoid impacts, the backslope of the berms are proposed to be 2H:1V in certain locations in lieu of the typical 3H:1V.

Berm Alternative No. 2 – Retaining Walls on Existing Berms

This alternative would construct retaining walls at the top of the berms to avoid the need for additional ROW. This alternative was not feasible due to the increase in constructability impacts, such as construction equipment access, which would result in additional tree removal and temporary easement than compared to Berm Alternative No. 1. In addition, permanent easements would be required for long-term maintenance of the retaining walls.

Berm Alternative No. 3 – Regrade Berms to 100-Year Flood Protection

This alternative would increase the height of the berms to provide the design standard 100-year flood protection for IL 58. The 2005 hydraulic report for PS 17 determined that in order to achieve this height, the berms would have to be approximately three feet higher than their original elevation. This would increase the width of disturbance by a minimum of 18 feet on both sides of IL 58 which would result in additional tree removal and temporary easement than compared to Berm Alternative No. 1.

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The proposed project also includes improving access to PS 17. During large storm events the existing access drive to PS 17 becomes flooded and impassable, which prevents the Department from maintaining PS 17. The following alternatives were evaluated. See Attachment B-7, Access Drive Relocation Plan and Alternatives for additional details.

Access Drive Alternative No. 1 - Access East with Retaining Wall

This alternative would relocate the access approximately 350 feet to the east along IL 58, which is approximately two feet higher in elevation. The drive would be extended the 350 feet within the existing ROW, but would require the construction of retaining walls on either side. The new drive would connect to the existing drive, located on FPDCC property. Even with retaining walls, a temporary easement would be required to construct the drive extension. A permanent easement is proposed to maintain the existing drive on FPDCC property. This is the preferred alternative because it minimizes impacts to FPDCC property.

Access Drive Alternative No. 2 – Access East-At-Grade

This alternative is similar to Access Drive Alternative No. 1; however, instead of using a retaining wall, the access drive would be at-grade through FPDCC property. This would increase the amount of permanent easements and require additional tree removal.

Access Drive Alternative No. 3 - Big Bend Lake Boat Ramp Shared Access

This alternative would use the access at Big Bend Lake boat ramp to connect to the existing access drive. The new driveway would be located entirely on FPDCC property. This alternative was not considered any further as it was determined during coordination with the FPDCC that the boat ramp access is locked after hours, and this would present a problem should emergency access be required.

Access Drive Alternative No. 4 - Access East Entirely on IL 58 ROW

This alternative is similar to Access Drive Alternative No. 1; however, instead of connecting to the existing driveway on FPDCC property, the driveway would be extended to PS 17 entirely within IL 58 ROW. This was determined to be not feasible due to the steep embankment grade between PS 17 and IL 58. In addition, an access at this location would not allow the proposed berm height to be attained. As a result, the berm would need to be relocated onto FPDCC property to match into higher ground south of PS 17, resulting in increased impacts to FPDCC.

The proposed improvements will not impact any recreational uses; or areas that utilized OSLAD or LAWCON funds.

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- b. Commitments for mitigation or enhancement:** The proposed drainage improvements will attenuate overland flow, providing enhanced water quality benefits and erosion control.

The impacted areas contain 51 trees on FPDCC property that are proposed to be removed, including 18 Common Buckthorn and one dead tree. The other 32 trees will be mitigated through the fee and replacement program set forth in the FPDCC Tree Mitigation Plan as adopted by the Board of Forest Preserve District Commissioners on March 21, 2007. The estimated mitigation fee is \$44,272. Attachment F contains the detailed tree survey.

The project also requires 92 trees to be removed with highway right-of-way, which will be replaced according to Department Policy D&E-18 Preservation and Replacement of Trees. Tree replacement provides an opportunity to replant native trees that will enhance the quality of the forest. A landscaping plan will be prepared during Phase II, which can be coordinated with the FPDCC.

The Department will contact the FPDCC prior to the start of construction to inform them of the initiation of construction activities near their properties. A commitment will be included in the project report as follows: “ The Construction Resident Engineer will contact the FPDCC prior to the start of construction to inform them of the initiation of construction activities near their properties.”

5. Evidence of Opportunity for Public Review and Comment:

- a. Type of Public Availability:** A newspaper ad will be posted in the Chicago Sun Times on XX, 2015 and on XX, XX, 2015 to allow the public 30 days to review and comment on the Section 4(f) impacts (See Attachment E). The Section 4(f) documentation will be available for viewing during the comment period at the Department (201 West Center Court, Schaumburg, IL, at FPDCC (536 North Harlem Avenue River Forest, IL 60305) and on the Department’s website at <http://www.idot.illinois.gov/transportation-system/environment/index>. Comments could be made by e-mail through the Department website by clicking on the link above.

- b. Summary of Comments:** Pending.

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6. Evidence of Coordination with Official(s) with Jurisdiction (OWJ):

- a. June 26, 2013 FPDCC Coordination Meeting
- b. August 1, 2014..... FPDCC Coordination Meeting
- c. June X, 2015 Transmittal of Draft Section 4(f)
- d. July X, 2015 FPDCC Coordination Meeting
- e. TBD..... Transmittal of Section 4(f) with Public Comments
- f. TBD..... Concurrence of No Adverse Impact
- g. TBD..... Transmittal of Final Section 4(f)

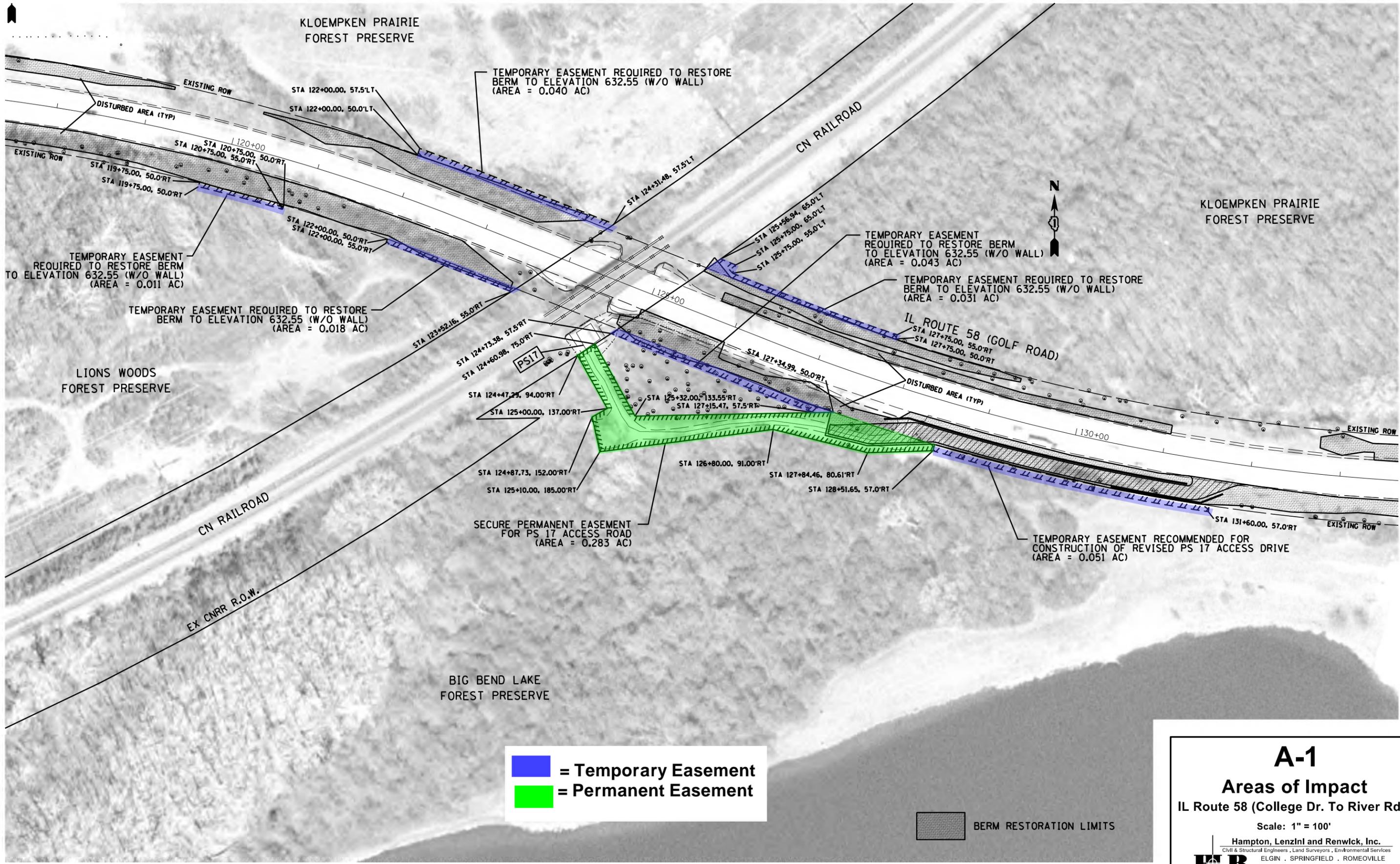
The above items are included in Attachment C, Coordination.

7. Supporting Documentation

- a) Section 4(f) Impact Exhibit Attachment A
- b) Regional Location Map Attachment B-2
- c) Aerial View-Kloempkin Prairie/Big Bend Lake Attachment B-3
- d) FPDCC Facility Map Attachment B-4
- e) Kloempkin Prairie Forest Preserve Map Attachment B-5
- f) Big Bend Lake Forest Preserve Map Attachment B-6
- g) Access Drive Relocation Plan and Alternatives Attachment B-7
- h) Coordination Attachment C
- i) Proposed Typical Sections Attachment D-1
- j) Proposed Plan and Profile Sheets Attachment D-2
- k) Public Review and Comment Attachment E
- l) Tree Survey..... Attachment F

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Attachment A
Section 4(f) Impact Exhibit



= Temporary Easement
 = Permanent Easement

BERM RESTORATION LIMITS

A-1

Areas of Impact

IL Route 58 (College Dr. To River Rd.)

Scale: 1" = 100'

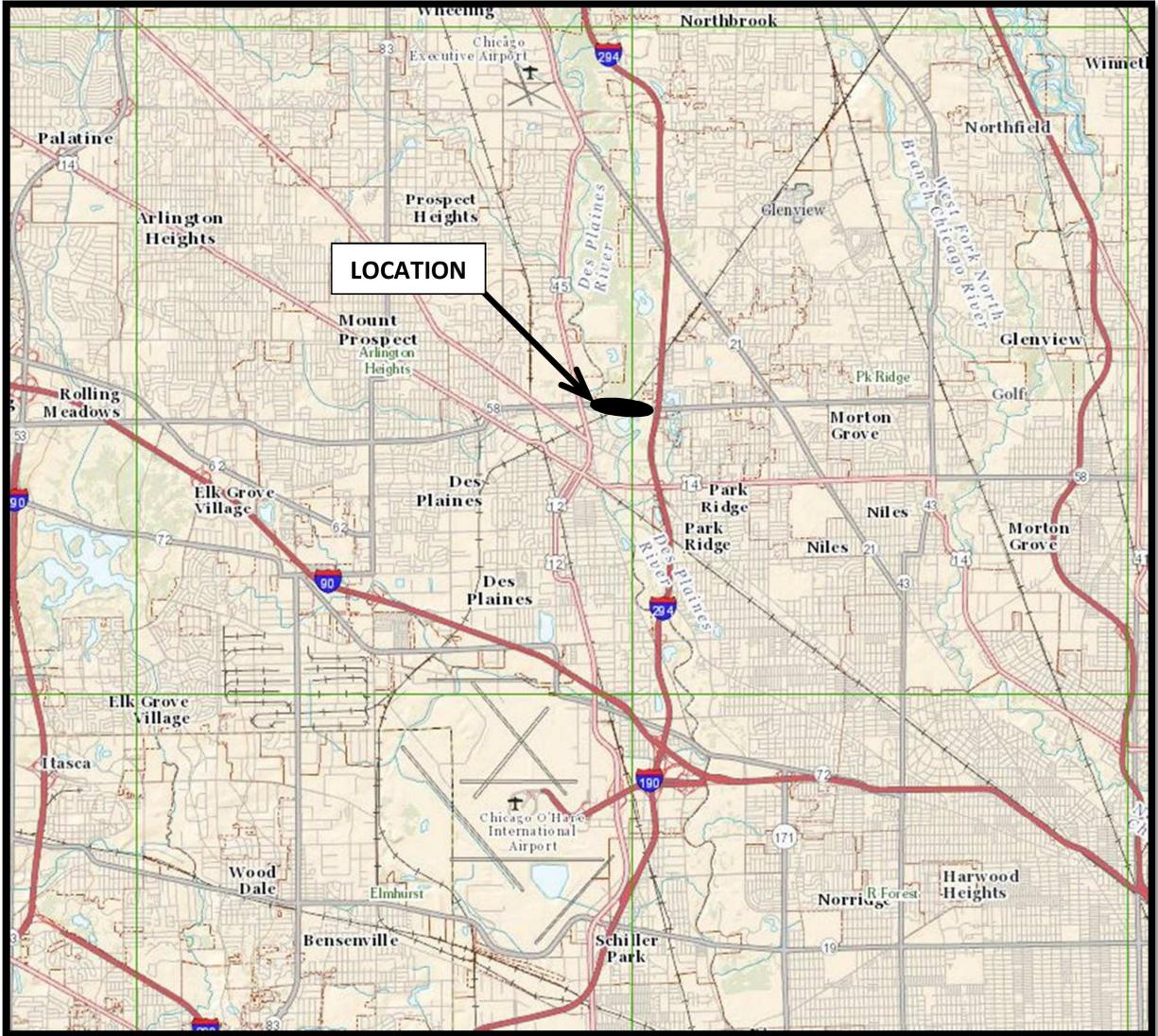
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Attachment B

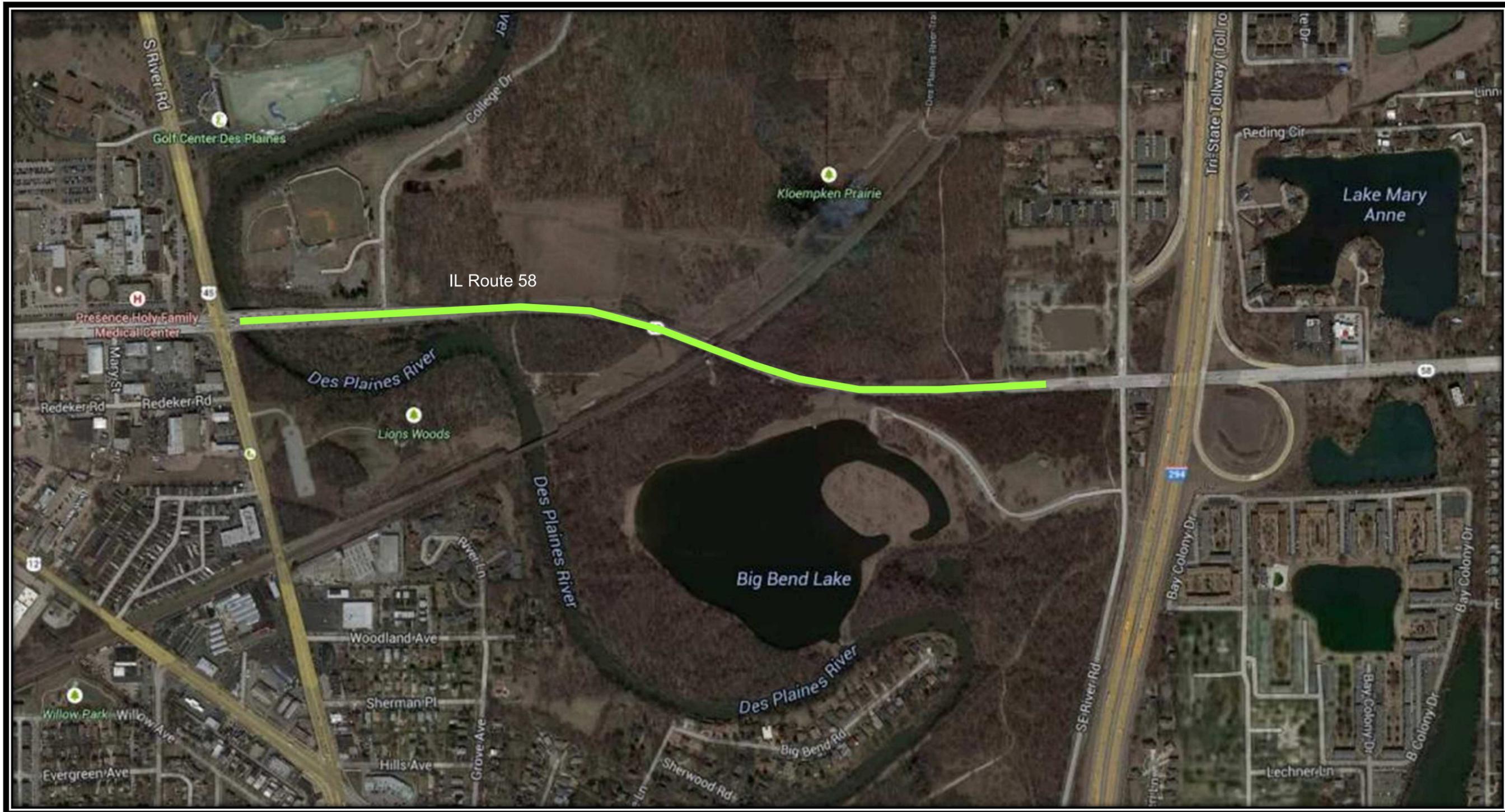
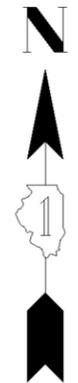
Regional Location Map
Aerial View-Kloempkin Prairie/Big Bend Lake
FPDCC Facility Map
Kloempkin Prairie Forest Preserve Map
Big Bend Lake Forest Preserve Map
Access Drive Relocation Plan and Alternatives



B-2
Regional Location Map
 IL Route 58 (Golf Rd)

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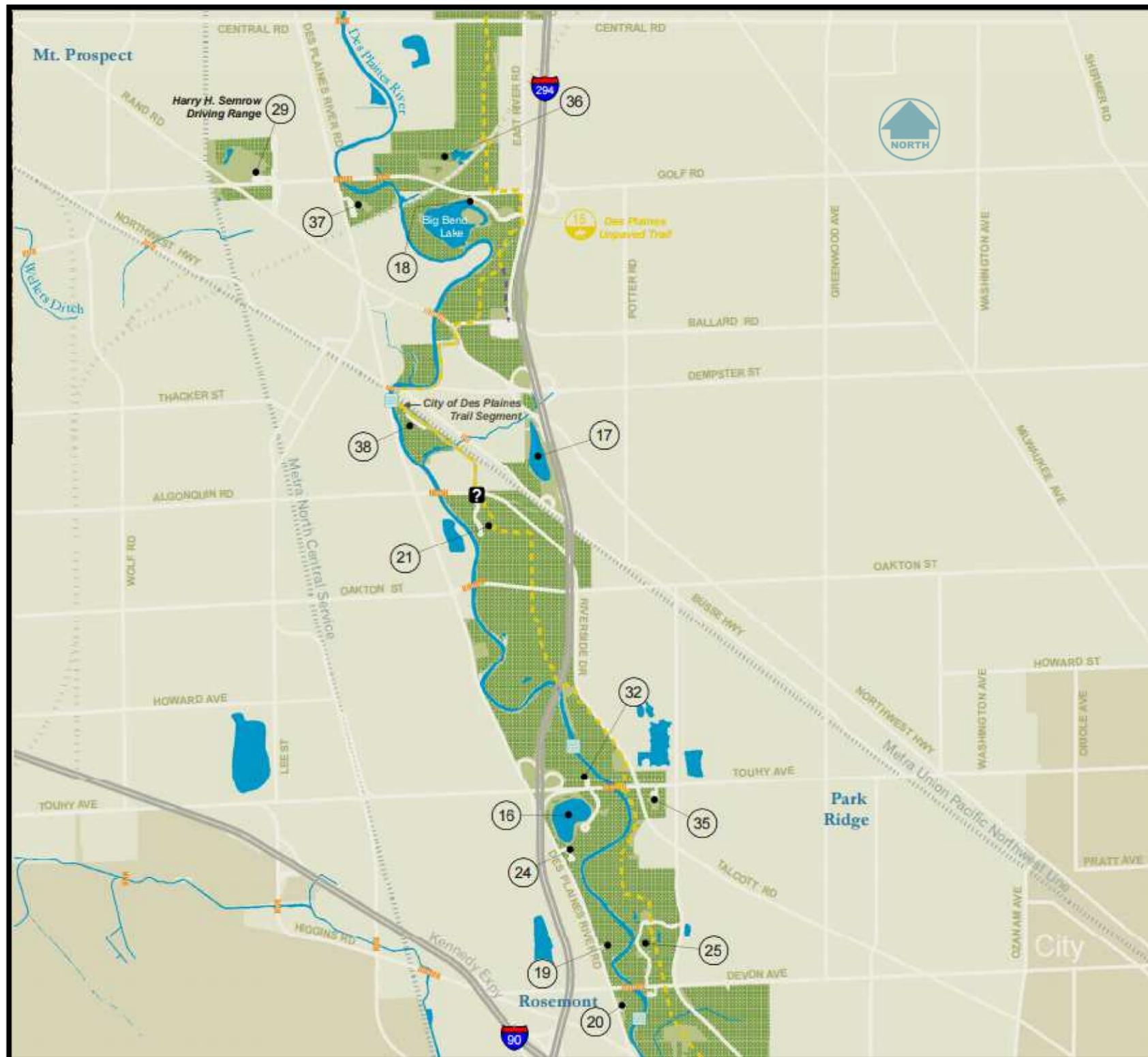


 Project Improvement Limits

B-3
Existing Aerial
IL Route 58 (College Dr. to River Rd.)

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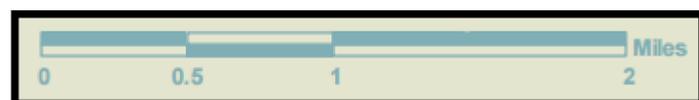
- Activity Areas**
- 16 Axehead Lake
 - 17 Belleau Lake
 - 18 Big Bend Lake
 - 19 Blandings Grove Family Picnic Area
 - 20 Blue Beach Family Picnic Area
 - 21 Camp Ground Road Woods
 - 22 Catherine Chevalier Woods
 - 23 Che-Che-Pin-Qua Woods
 - 24 Chippewa Woods
 - 25 Dam No. 4 Woods-East
 - 26 Evans Field
 - 27 Fullerton Woods
 - 28 Fullerton Woods Family Picnic Area
 - 29 Harry H. Semrow Driving Range
 - 30 Indian Boundary Family Picnic Area
 - 31 Indian Boundary Golf Course
 - 32 Iroquois Woods
 - 33 Irving Park Road Canoe Landing
 - 34 Jerome Huppert Woods
 - 35 John E. Traeger Family Picnic Area
 - 36 Kloempken Prairie
 - 37 Lions Woods
 - 38 Northwestern Woods
 - 39 River Bend Family Picnic Area
 - 40 Robinson Homestead Family Picnic Area
 - 41 Robinson Woods-South
 - 42 Schiller Model Airplane Flying Field
 - 43 Schiller Playfield
 - 44 Schiller Pond
 - 45 Schiller Woods-East
 - 46 Schiller Woods-South
 - 47 Schiller Woods-West
 - 48 Sunset Bridge Meadow
- Trail Systems**
- 15 Des Plaines (Unpaved)

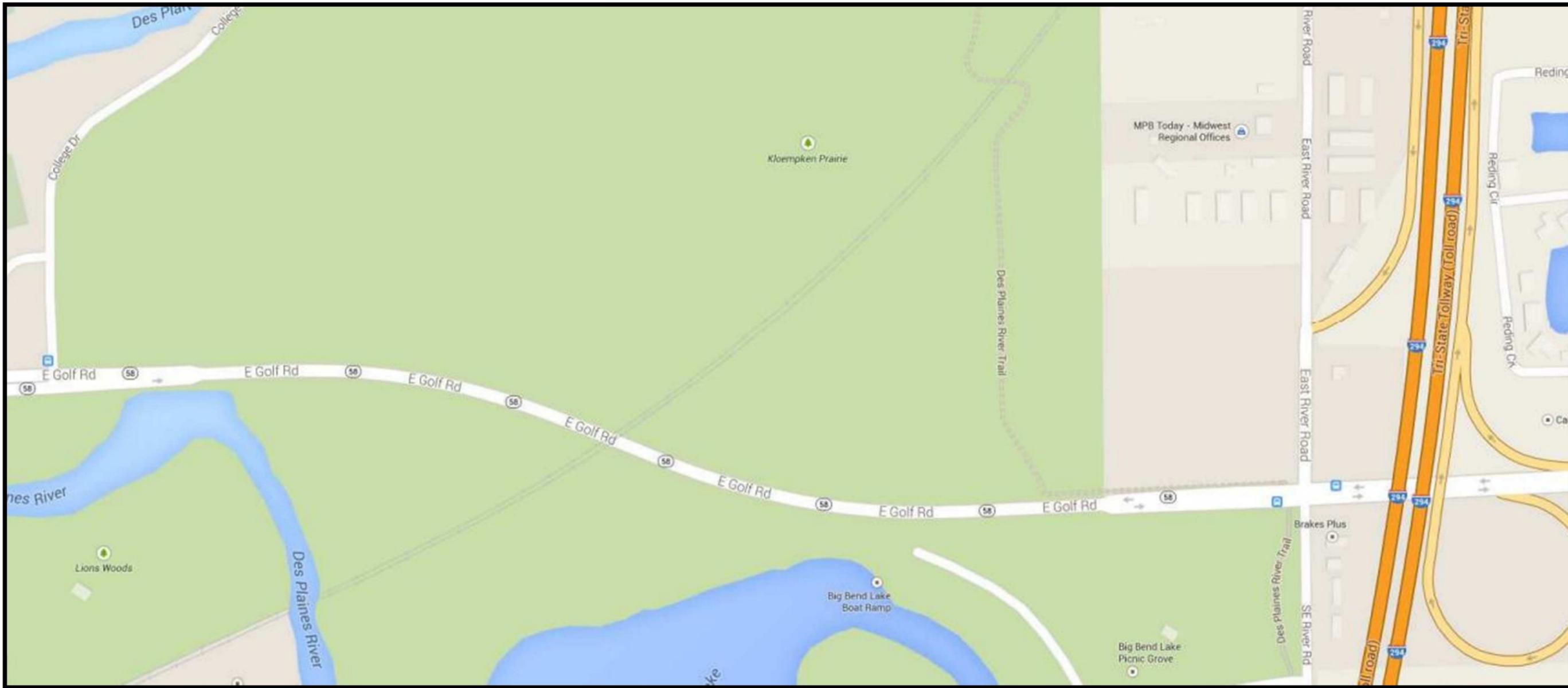
EXPLANATION OF SYMBOLS

ICONS & NOTATIONS

Note: while not all activities are available in each region, they may be available in a region nearby. Please refer to the Forest Preserve District-wide map for locations of all activities.

	Picnic Grove		Canoe Landing
	Shelter		Snowmobiling
	Ecological Management Site		Model Boat Area
	Hiking		Model Airplane Flying Field
	Birding Hotspot		Camping-Youth Group Only
	Equestrian Trailer Parking		Dog Friendly Area
	Sledging		Golfing
	Boat Ramp		Cycling
	Fishing		In-line Skating
	Nature Center		Cross-Country Skiing
	Swimming Pool		No Parking
	No Alcohol		Boat rental available at this site
			Gas-powered boat launch at this site
			Large capacity grove





B-5
Kloempkin Prairie
IL Route 58 (Golf Rd)

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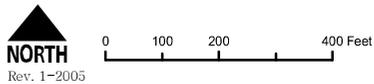
Picnic Groves

BIG BEND LAKE

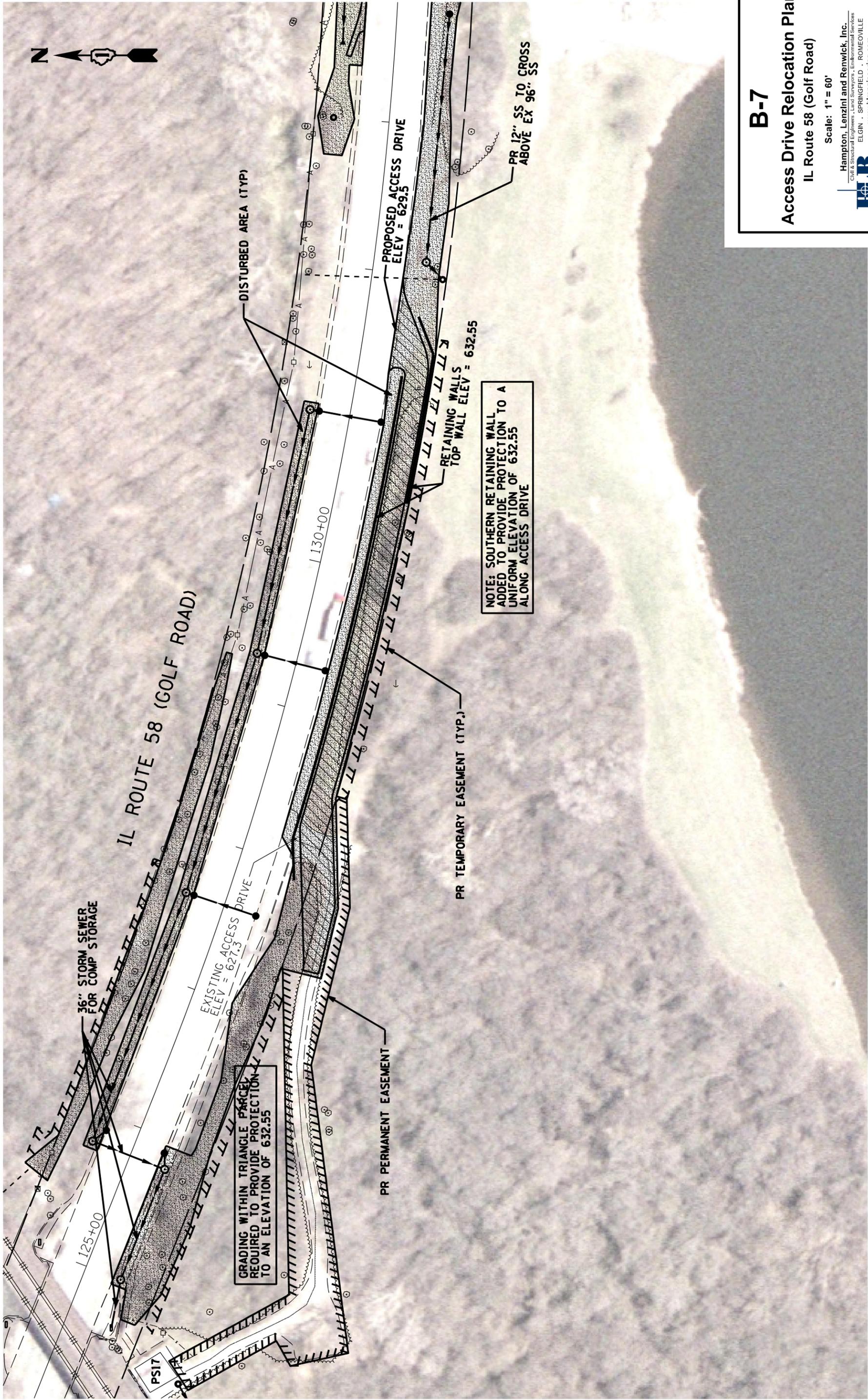
DES PLAINES DIVISION



B-6



-  Grove Number
Capacity
-  Shelter
-  Unpaved Trail
-  Trees
-  Parking



B-7

Access Drive Relocation Plan IL Route 58 (Golf Road)

Scale: 1" = 60'

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GRADING WITHIN TRIANGLE PARCEL
REQUIRED TO PROVIDE PROTECTION
TO AN ELEVATION OF 632.55

NOTE: SOUTHERN RETAINING WALL
ADDED TO PROVIDE PROTECTION TO A
UNIFORM ELEVATION OF 632.55
ALONG ACCESS DRIVE

36" STORM SEWER
FOR COMP STORAGE

EXISTING ACCESS DRIVE
ELEV = 627.3

PR PERMANENT EASEMENT

PR TEMPORARY EASEMENT (TYP.)

RETAINING WALLS
TOP WALL ELEV = 632.55

PROPOSED ACCESS DRIVE
ELEV = 629.5

PR 12" SS TO CROSS
ABOVE EX 96" SS

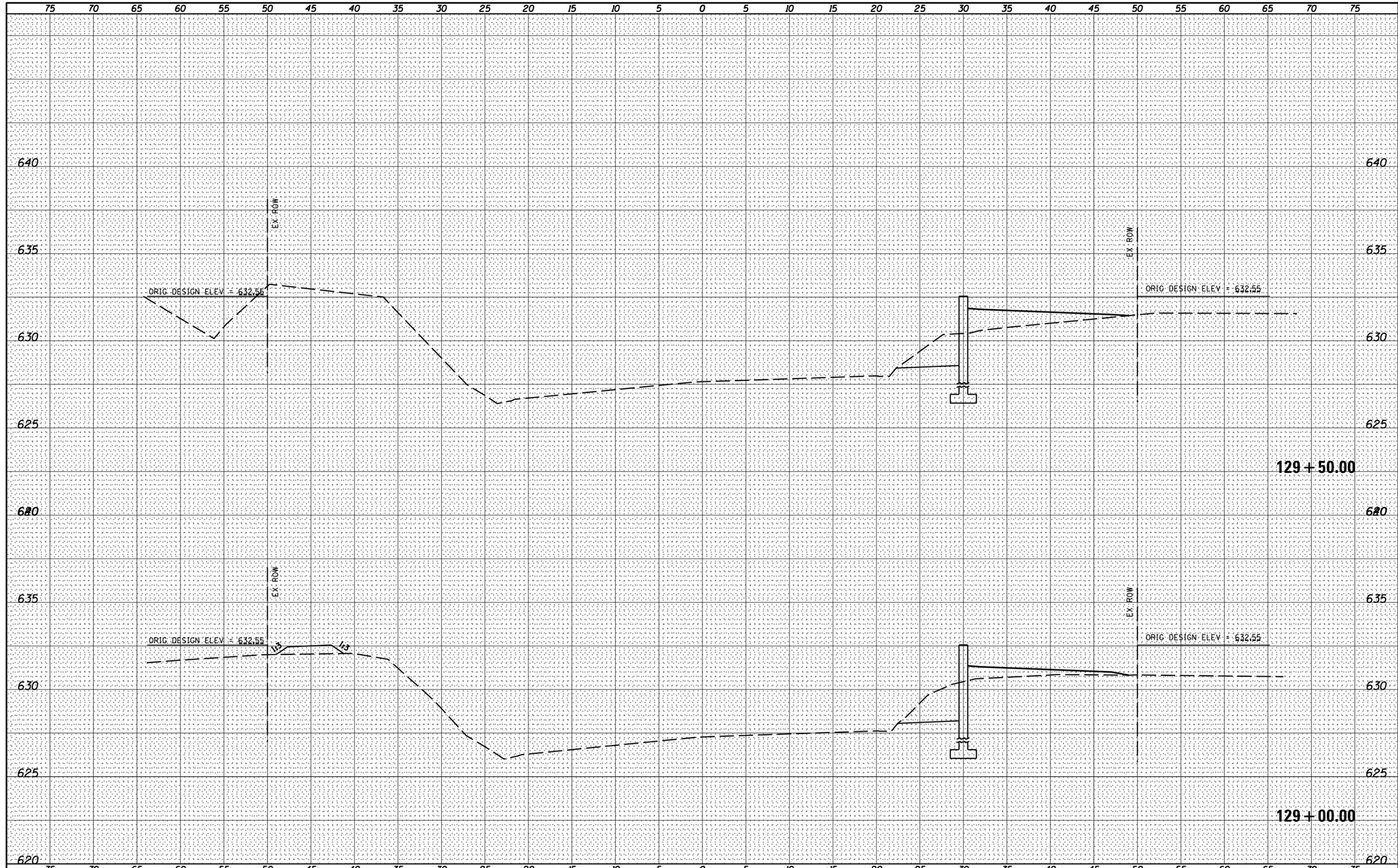
DISTURBED AREA (TYP)

IL ROUTE 58 (GOLF ROAD)



BY	DATE
FINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	TEMPLATE
	AREAS CHECKED

BY	DATE
ORIGINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	TEMPLATE
	AREAS CHECKED





Access Alt #1
Pump Station No. 17
 IL-58 (Golf Road) LDS

Scale: 1" = 60'

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Access Alt #2
Pump Station No. 17
IL-58 (Golf Road) LDS

Scale: 1" = 60'

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Access Alt #3
Pump Station No. 17
IL-58 (Golf Road) LDS

Scale: 1" = 60'

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April 17, 2013 – Flooding occurred south, from the river. Then, substantial residual overflow from the floodplain spread to the north. The maximum depth of water from the flood was recorded at 14' and the road was closed for four days. The lid of a 94" storm sewer main blew off and heavy overflow was reported coming up from the pipe for a full day after the river receded.



Pic #1: car submerged at College Dr. looking east.



Pic #2: looking west from college Dr.



Pic #3: third day and first access to cars lost under the bridge.

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**Attachment C
Coordination**

AGENDA ITEM #12

Illinois Route 58 (Golf Road)
College Drive to N. East River Road
Job. No. P-91-290-13
Cook County

May 15, 2013

This is the 1st presentation for this project. The purpose of this meeting is to present and discuss coordination items related to this project's drainage improvements. The project, located just west of I-294 and east of the Des Plaines River, addresses flooding problems at the subway beneath the railroad viaduct. There are three main coordination items: maintenance to Pump Station No. 17's (PS 17) outfall storm sewer, maintenance to the roadway berms adjacent to IL-58, and providing alternate access to PS 17.

Televising of the 24" outfall storm sewer from PS 17 indicated that there are three sections of undersized pipe (18" diameter). There is currently an investigation to determine property ownership along the outfall storm sewer path (either Forest Preserve District of Cook County (FPDCC) or Union Pacific – C.P Rail System). Per a 1920s agreement with the railroad, the outfall storm sewer was to be located within railroad right-of-way to its discharge point along the Des Plaines River. Confirming ownership along the storm sewer's path will allow for coordination with the proper agencies. It is currently proposed that the section of storm sewer with undersized pipe be replaced with 24" storm sewer.

The next coordination item is related to the berms located to the north and south of IL-58. These berms are parallel to the roadway and offer flooding protection to the subway from the offsite areas, including backwaters from the Des Plaines River. Over time, the berms have eroded from their original design elevations. Maintenance to the berms is proposed to restore them to their original design elevations which will increase protection for higher frequency flooding events (less than 10-year). The proposed berm maintenance is to occur within Department right-of-way. However, construction of the original berms extended beyond the right-of-way. For certain locations where it is not possible to achieve the original design elevation within existing right-of-way, a small retaining wall is proposed so that flood protection to a uniform elevation may be provided.

It was commented by IDOT that the FPDCC may not look favorably on the construction of walls adjacent to their property. It was determined that this item should be discussed at the next quarterly FPDCC/IDOT coordination meeting.

The final coordination item also concerns the FPDCC. The existing access drive to PS 17 from IL-58 is below the 10-year flood elevation. Access to the pump station becomes restricted when subway flooding occurs. Three different alternates were presented to revise the access location in order to decrease its susceptibility to flooding. The alternates increase the elevation of the access drive to improve the ability to reach the pump station during flooding. In addition to improving maintenance vehicle access, the access revisions also aim

to provide a uniform flood protection elevation (carrying the berm through the access drive). In the existing conditions, the access drive is lower than the berm elevation and susceptible to allowing floodwaters to reach the IL-58 subway. The first alternate, which may be constructed within existing right-of-way, moves the access further up grade from the subway. The first alternate would require the construction of a retaining wall which would be located parallel to IL-58, several feet behind the existing curb. For the second alternate, access to the pump station from IL-58 is in the same location as the first alternate. However, instead of using a retaining wall, the access drive would go through FDPCC property. The third and final alternate recommends access be provided from the pavement near the Big Bend Lake boat ramp, through FPDCC property, to the pump station. The second and third alternates would require cooperation from the FPDCC to allow construction for the access drive revisions.

During the meeting, there were several comments related to the access drive revisions. The retaining wall, used in the first alternate, would require end treatment for safety. Also, it should be verified that heavy equipment, such as a crane, is able to make the movement to the access drive.

All of those in attendance at the meeting were in concurrence that coordination should proceed with the Forest Preserve District of Cook County to discuss the proposed approach. Following FPDCC coordination, this project will be presented at a future FHWA coordination meeting.

Chris Olcott, Randy Newkirk – Hampton, Lenzini and Renwick, Inc.

IDOT/FPDCC COORDINATION MEETING

FPDCC Office; 536 N. Harlem Avenue, River Forest

June 26, 2013

General Discussion:

The purpose of this meeting was to coordinate various IDOT projects and to discuss various locations selected by the FPDCC where IDOT action is needed.

IDOT Items:

The following are the discussions had for various Phase I projects that IDOT has or will coordinate with the FPDCC. See agenda spreadsheet for additional project information:

183rd Street at Central Avenue

The proposed improvements consist of channelization and traffic signal modernization. FPDCC indicated drainage concerns in the southwest quadrant and the need to avoid a mitigation site to the west of the project. IDOT noted that upon approval of the project drainage and geometrics, these will be presented to FPDCC to begin the 4f process. FPDCC noted that part of their long term plan is to provide a trail connection from the South Green Belt Trail (located southeast of the project) and the Bob O. Links Trail (northwest of the project).

IL 50 (Cicero Avenue) at Vollmer Road

The project has obtained design approval and IDOT would like to incorporate the shared-use path connection proposed on the northeast corner of the intersection. At the March 27, 2013 meeting, the FPDCC was in concurrence with the temporary easement and letter. IDOT has not received written concurrence of this request. FPDCC requested that the letter be emailed to them so that a signature could be provided. IDOT noted that signed concurrence was needed to incorporate the path into the project plans and maintain the project schedule.

Subsequent to the meeting: a signed concurrence letter from FPDCC was emailed to IDOT on July 2, 2013.

IL 43 at 46/47th Streets

IDOT would like signed concurrence for the shared-use path connection that is proposed on the northeast corner of the intersection to provide a link to the trail on the Ottawa Trail Woods holdings. FPDCC requested that the letter be emailed to them so that a signature could be provided.

Subsequent to the meeting: a signed concurrence letter from FPDCC was emailed to IDOT on July 2, 2013.

IL 171 (1st Avenue) at Ridgewood Rd/Forest Avenue

The proposed scope included traffic signal modernization, including pedestrian countdowns with push buttons, and the addition of a southbound and westbound right turn lane. IDOT has coordinated the project improvements with the local agencies involved and will be pursuing a pedestrian island at the north leg of the project. The concept geometry is being developed and the intent is to widen asymmetrically to the west and minimize impacts to FPDCC.

Illinois Route 68 over the Middle Fork North Branch of the Chicago River

The FPDCC presented the project at the June 18th 2013 Cook County Board of Commissioners. This improvement has been forwarded to the Real Estate Committee for their review/approval to be subsequently presented to the Cook County Board of Commissioners for approval of the requested easements on July 16, 2013 at 9:15 AM. IDOT will send staff to address any project questions and/or concerns raised at this meeting. The FPDCC stated that at their June meeting, Commissioner Daily inquired if there would be an intergovernmental agreement clause added to the real estate documents stating IDOT's responsibility to maintain the proposed culvert. IDOT's practice is that all structures built by IDOT on IDOT right-of-way are IDOT's maintenance responsibility. Which is why IDOT is undergoing this improvement to repair the existing culvert of which portions lie within FPDCC property. IDOT stated that this is not done for various reasons; given the number of structures in IDOT's system, generation and tracking of maintenance agreements would pose an insurmountable burden on IDOT; access to real estate agreements is not readily accessible to engineering staff involved in engineering studies and as such there would be much room for errors on the maintenance and cost participation coordination of IDOT's improvements; and finally, real estate transactions are always independent of maintenance agreements. IDOT stated that they will forward the template easement letter approved by the FPDCC for the previous acquisitions for Commissioner Daily's information as well as stating the previously mentioned reasons why this practice is not done.

Old Willow Springs Road over Des Plaines River

IDOT has not received confirmation that the Cook County Highway Department (CCHD) will be accepting jurisdiction of the proposed pedestrian bridge; however, they are proceeding with completion of the Phase I improvement and expects to be able to let the project early in 2015 to coincide with the closure of the Centennial Trail done by the MWRDGC which is expected to last until early 2016. The MWRDGC sent a letter to IDOT informing them of their scope of work and IDOT will coordinate both projects further.

Rand Road over Des Plaines River

At the March 27, 2013 meeting, the FPDCC agreed with the Section 4f Deminimis document and would submit the easements to the Cook County Board of Commissioners for approval. The final Section 4f Deminimis Report was sent on May 21, 2013 and IDOT inquired if approval had been granted. The FPDCC stated that this was not done during this period and requested that the documents be resent to them via email for further coordination.

Subsequent to the meeting: the Final 4f Transmittal was emailed to the FPDCC on June 27, 2013

U.S. Route 6 over Midlothian Creek

At the March 27, 2013 meeting, the FPDCC agreed with the requested temporary easement and the temporary occupancy letter; however, subsequent to the meeting they were under the impression that the easement was no longer needed and did not sign off on the temporary

occupancy letter. IDOT stated that there have not been any changes to the easements needed. The FPDCC requested the temporary occupancy letter sent to them via email for approval. IDOT expects that similar to what was done for the Harts Road bridge improvement temporary occupancy letter, this would not require presentations at the Cook County Board of Commissioners and that the letter would be signed by the FPDCC General Superintendent.

IDOT informed the FPDCC that the evaluation for the creek enclosure discussed at the previous meeting determined that the enclosure would be feasible and will be proceeding with this approach. IDOT has coordinated with the IDNR and the ACOE agencies and has received concurrence with IDOT's proposed approach. This work will not require any additional easements, impacts or compensatory storage from the FPDCC.

Subsequent to the meeting: the temporary occupancy letter was emailed to the FPDCC on June 27, 2013.

Golf Road, College Drive to NE River Road:

The proposed project is located west of Interstate 294 to east of the Des Plaines River. The scope of work includes drainage improvements to the storm water collection system, maintenance to the outfall storm sewer, reinstatement of the existing berms to their original design elevations, and revisions to the access road to Pump Station Number 17 (PS 17). IDOT presented each of these topics.

The outfall storm sewer for Pump Station No. 17 runs parallel to the Union Pacific-C.P. Rail System. Televising of the outfall revealed that there are three segments of undersized pipe located in the PS 17 outfall pipe. These pipe sections will be removed and replaced as part of the project. IDOT also needs to determine what repair may be needed at the end section of the outfall pipe. IDOT is investigating if the storm sewer is entirely within railroad ROW and will follow-up with the FPDCC should an easement be necessary for this maintenance work.

There are existing berms on the north and south sides of IL 58 that require restoration. This location is susceptible to flooding from the Des Plaines River, even during high frequency flood events. Existing plan information shows that portions of the original berms were located outside the IDOT ROW. If the proposed maintenance is to occur within the ROW, a retaining wall is required so the berm is located on IDOT ROW. The back of the wall would be graded with a steep slope to remain within the IDOT ROW. The proposed retaining wall would be exposed between 0.5-ft to 2.5-ft feet at several locations. The other alternative would be to restore the berms with the original slopes and request Temporary Easements from the FPDCC. FPDCC inquired about tree impacts resulting from the berm restoration, IDOT indicated that the area around the existing berms is comprised primarily of dense brush. IDOT will conduct a tree survey and update the FPDCC. The FPDCC inquired if a Permanent Easement would be required for IDOT berm maintenance. IDOT replied that in many cases a Temporary Easement is sufficient for construction, but hasn't determined maintenance needs yet. FPDCC requested the plan information and berm typical sections.

FPDCC will use this information to conduct internal discussions and comments will be provided to IDOT.

Three alternatives were discussed for the revisions to Pump Station 17 access drive. The existing access drive to the pump station is within the floodplain which causes it to become inaccessible during flooding events. FPDCC will review the alternatives that were presented. Coordination of a Temporary or Permanent Easement will be ongoing with FPDCC.

Subsequent to the meeting: IDOT emailed the requested information to the FPDCC for their review.

Des Plaines River Road; Touhy Avenue to U.S. Route 12 (Rand Road)

The proposed improvement will include the reconstruction of Des Plaines River Road to provide a four-lane arterial route. A flush two-way left turn median will be provided in the non-residential sections of the route. Major intersections will be improved by adding turn lanes, increasing queue storage lengths, increasing taper rates and modernizing traffic signals. The elevation of Des Plaines River Road will be raised above the 100-year floodplain elevation of the Des Plaines River where feasible with curb and gutter and a new storm sewer drainage system provided for the length of the improvement. In areas where it is not feasible to raise the elevation above the 100-year floodplain elevation due to significant property impacts, the roadway elevation will at least be raised above the 10-year flood elevation.

This proposed improvement addresses existing safety and capacity deficiencies by improving operation at intersections, reducing congestion and increasing storage for turning vehicles. The improvements are consistent with the City of Des Plaines Comprehensive Plan, adopted in 2007 and the Chicago Area Transportation Study's 2030 Regional Transportation Plan, adopted in 2003.

The Section 4(f) document for this improvement was approved on January 17, 2007. An offer was made to the FPDCC on May 10, 2012. Things have been at a standstill since then. IDOT's design consultant was asked to evaluate the dimensions of the proposed easements and to minimize impacts to the FPDCC property as much as possible. They were able to do so. The original requirements were 0.075 ac of PE's and 1.014 ac of TE's. The ROW impacts were reduced by approximately 0.043 ac in PE's and 0.970 ac in TE's; however, two new additional TE's (0.023 ac) are necessary. There is still an overall reduction of 0.947 ac in TE's. IDOT stated that a total of 346 trees are within the improvement limits and out of these 85 of them fall within the FPDCC holdings. IDOT is currently performing a quality assessment on these trees and will submit the FPDCC Tree Mitigation Plan per their policy dated March 21, 2007 for the value of the trees being impacted. IDOT will transmit all documents as soon as they are received.

FPDCC / IDOT QUARTERS (COORDINATION)
06/26/13

NAME	COMPANY	EMAIL	PHONE#
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CHRIS MERENOWICZ	FPDCC	chris.merenowicz@cookcountyil.gov	708/771-1338
MIKE MURNANE	FPDCC	michael.murnane@cookcountyil.gov	312-972-2016
CARLOS FELICIANO	IDOT	CARLOS.FELICIANO@ILLINOIS.GOV	847-705-4106
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PERRY MASOUIDIS	IDOT/FPDCC	eleftherios.masouidis@illinois.gov	847-705-4474

IDOT/FPDCC COORDINATION MEETING
IDOT Office – 201 W. Center Ct, Schaumburg
4th Floor Executive Conference Room

August 1, 2014

General Discussion:

The purpose of this meeting was to coordinate various Illinois Department of Transportation (IDOT) projects which are currently in Phase I, Preliminary Engineering and Environmental Studies, and to discuss various locations selected by the Forest Preserve District of Cook County (FPDCC) where IDOT action is needed.

FPDCC Items:

95th Street at 104th –The FPDCC noted that as part of last year’s construction project there were 3 trees that were impacted which were not in the tree impact plans. These trees were replaced last fall and were found dead this year. The FPDCC would like IDOT to replace these trees.

IDOT noted that the contractor was told by the FPDCC to move the trees to a different location from what was stated in the plans which was outside of the IDOT right-of-way (ROW) and the location was apparently not suitable for tree growth because of flooding concerns. IDOT’s Maintenance Staff noted that since the trees were taken out of the IDOT ROW and put in a place different than the plans stated, that the contractor could not be held responsible for ensuring the trees survived. IDOT’s Maintenance Staff noted that IDOT has a tree installation contract coming out in the Spring which can be used to replace the 3 dead trees. Rick Wanner and/or Steve Lipkie from IDOT’s Bureau of Maintenance will coordinate with John Sterenberg of the FPDCC on the location of the trees that are to be replaced. Any trees placed outside of the IDOT ROW will require donation of the easement or a right of entry license to the contractor.

Permits for FPDCC Work on State ROW – John McCabe of the FPDCC wanted to note that the FPDCC has been having issues with getting IDOT permits for tree installation approved and were wondering if there was anything that could be done to resolve the delays. IDOT’s Maintenance staff noted that the issue has been resolved. The issue was related to the contractor.

IDOT Public Meeting/Hearing Invite Letters – The FPDCC has received invitation letters to a Public Meeting for Wood Street and asked if there was anything that IDOT wanted to follow up on those letters. IDOT noted that the letters are invitation letters mailed to a large group of stakeholders to provide an opportunity for the public to review and comment on

proposed improvements. Separate coordination meetings with the FPDCC take place prior to these meetings but that the invitation is for your information only.

IDOT Requests for FPDCC Information – IDOT noted that one of the issues that seems to be reoccurring with the various improvement plans that IDOT has is a lack of information on the existing FPDCC property boundaries which often times delays projects. IDOT inquired if the FPDCC kept readily available records of the FPDCC holdings that could be used to aid in the initial ROW determination. The FPDCC noted that they keep good records of their current holdings but that easements could be difficult to find/track. IDOT noted that it would be useful if any available information could be transmitted to IDOT when they send out their initial project letters requesting for information. IDOT will revise the letter template to note the request for this information and include a location of the area where information is requested.

IDOT Items:

The following are the discussions had for various Phase I projects that IDOT has or will coordinate with the FPDCC. See agenda spreadsheet for additional project information:

147th Street at Menard Avenue – This was the initial presentation of this project. The project is located in the City of Oak Forest. IDOT was notified of flooding concerns at the culvert crossing 147th Street west of Menard Avenue and in the neighborhood to the southeast of 147th Street and Menard Avenue. A drainage investigation was performed. Two culverts at 147th Street located approximately 1,200 feet and 2,600 feet west of Central Avenue convey water to the north side of the road and through FPDCC land. The existing outfall in the FPDCC property, to the north of the eastern culvert crossing 147th Street, has silted in over the years and the water does not drain properly. Several options were studied in the drainage investigation and the scope of work proposed is to replace the eastern culvert with a larger culvert and grade from the existing outfall approximately 200 feet to the north to reestablish flow to the north. Phase I studies have been initiated and IDOT inquired whether the FPDCC had any concerns or comments. The FPDCC asked if increasing the culvert size alone was sufficient to resolve the problem and IDOT noted that the combination of reinstating the flow line and replacing the culverts is needed. IDOT also noted that this appears to be a headwater area, so the channel in this area is not well defined with channel banks and a normal flow. Due to the siltation, the flow has to build up on the upstream side of 147th Street until it can divert to an offsite storm sewer. Flooding has threatened to enter homes and has overtopped over the roadway. The FPDCC would like to know what the tree impacts will be, as well as any other impacts to their property. The FPDCC mentioned that there is an agreement with the MWRD regarding small streams that may be able to do some grading work in this area.

IDOT will begin the environmental process and inform the FPDCC of the impacts to forest preserve land.

183rd Street at Central Avenue – The project is located at the intersection of 183rd Street and Central Avenue in Unincorporated Cook County and is bordered on all sides by Cook County Forest Preserve. The proposed scope of work includes channelization on 183rd Street and traffic signal replacement. The addition of the left turn lanes on Central Avenue and the extension of the existing left turn storage areas on 183rd Street will require pavement widening and ditch regrading within the project limits. In order to provide positive ditch flow to the outlets located west of the intersection improvements, the profile will be raised approximately 2-feet. Permanent Easements will be required from the FPDCC to regrade the ditches. IDOT reduced ROW needs to the extent possible and is in the process of coordinating a detour plan with Cook County, as this will eliminate the need for additional easements due to temporary widening.

The project was initially discussed at the March 2013 coordination meeting, and at the time the FPCDD requested a copy of the Drainage Technical Memo. Upon completing the study, a copy was forwarded to the FPDCC for their comments (October 2013).

An overview of the proposed drainage conditions was presented and IDOT asked if the FPDCC had comments on the scope of the improvements. The FPDCC would like to ensure that there will be no impacts to the southwest quadrant as this area is a mitigation site. The FPDCC will provide a Wetland Restoration Site Map, so that it may be determined if additional coordination with the ACOE is required.

IDOT will initiate the *4f De Minimis* process and submit the report to the FPDCC for approval.

Subsequent to the meeting: The FPDCC provided drainage comments via email on August 6, 2014. IDOT is coordinating an internal response and will follow-up with the FPDCC.

Illinois Route 58: College Drive to E. River Road – The scope of work includes drainage improvements to the storm water collection system, maintenance to the outfall storm sewer, reinstatement of the existing berms to their original design elevations, and revisions to the access road to Pump Station Number 17.

These topics were originally discussed at the June 26, 2013 FPDCC Coordination meeting. Based on feedback obtained from the FPDCC to have the access road placed entirely within the IDOT ROW, the access road will be extended to the east, along the IDOT ROW with the use of proposed retaining walls. Extending it to the east will allow access to the pump station during flooding events. A Temporary Easement will be required for construction purposes.

Preliminary ROW information verifies that a portion of the access road is located within FPDCC property. IDOT will request a Permanent Easement for these portions as part of this process.

The preferred location for the existing berms was also discussed. The original berms, located on the north and south sides of IL 58 are in need of restoration. This location is susceptible to flooding due to the proximity of the Des Plaines River. The existing plans show that the berms were located outside the IDOT ROW at several locations. It is preferred that the berms be replaced without the use of a retaining wall. This would require Temporary Easements from the FPDCC in order to restore the berms to their original elevation.

IDOT will initiate 4f *De Minimis* processing for berm restoration, access road modification and complete a tree survey to identify any impacts to trees located within FPDCC property.

I-90 (Kennedy Expressway); I-190 to IL 43 – The scope of work for the I-90 improvement is anticipated to consist of access improvements between I-190 and Cumberland Avenue including a westbound collector-distributor (C-D) road, auxiliary lanes between Cumberland Avenue and Harlem Avenue, and pavement resurfacing across all lanes along I-90.

A previously completed I-190 Phase I Study included project components contiguous to the I-90 proposed improvements. One specific element is the I-190 at Cumberland Avenue flyover ramp. The flyover ramp would merge onto I-190 prior to exiting to Cumberland Avenue. The exiting ramp traffic would be barrier separated from I-90.

The scope of both projects will impact the East River Road structure over I-90. Based on previous coordination, it is our understanding that the FPDCC owns the multi-purpose path adjacent to the East River Road bridge while CDOT has jurisdiction over the East River Road bridge. As such, this bridge will be reconstructed to accommodate the proposed I-90 and I-190 improvements in this vicinity. Funding for the reconstruction of this structure is identified as part of the I-190 at Cumberland Avenue Flyover project. No right-of-way is required to reconstruct the structure. A Section 4F Temporary Occupancy Letter was sent to FPDCC for their concurrence. FPDCC said we should expect their signed approval within the next week. FPDCC had no additional comments or questions on the proposed improvement.

Illinois Route 171 (Archer Avenue) at Wolf Road and 95th Street – IDOT began by reviewing the conclusions from the last quarterly meeting. At this meeting the FPDCC stated that if the proposed improvements alternative would require retaining walls along 95th Street, IDOT would need to further evaluate realignments and a shift of the intersection to the center of the triangle area. IDOT agreed to evaluate this alternative and told the FPDCC that by doing the T-Intersection, additional retaining walls will be required on Illinois Route 171 to



Illinois Department of Transportation

Attendance Roster

Bureau: PROGRAMMING Section: PROJECT STUDIES
 Project/Topic: FPDCC/IDOT QUARTERLY MEETING
 Date: AUGUST 1ST 2014
 Time: 9:00 am
 Location: IDOT SCHAUMBURG OFFICE

	Attendees	Representing	Phone Number	Email Address
1.	CARLOS FELICIANO	IDOT P&ES	847.705.4106	carlos.feliciano@illinois.gov
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3.	Kimberly Murphy	IDOT - P&ES	847-705-4791	kimberly.murphy@illinois.gov
4.	Mike Phan	IDOT - P&ES/Startec	847-705-4634	Michael.Phan@illinois.gov
5.	Beth Giarelli	IDOT - P&ES	847 705-4718	Beth.Giarelli@illinois.gov
6.	GISELDA MANSOURIS	IDOT - PM - CSU	847.705.4716	giselda.mansouris@illinois.gov
7.	PERRI MASOURIDIS	IDOT/PROG/HID	847 705-4474	eleftherios.masouridis@illinois.gov
8.	MELISSA DEL ROSARIO	IDOT - MAINT/ROADSIDE	847-705-4391	melissa.delrosario@illinois.gov
9.	FABIOLA QUIROZ	IDOT - MAINT - ROADSIDE	847.705.4596	fabiola.quiroz@illinois.gov
10.	Rick Warner	IDOT - Maint. Roadside	847-705-4172	rick.wannere@illinois.gov
11.	SAM MEAD	IDOT - ENV.	847-705-4101	SAM.MEAD@ILLINOIS.GOV
12.	Catherine Kibble	IDOT - Design	847 705 4269	Catherine.kibble@illinois.gov
13.	Steve Lipkoe	IDOT Maint.	847 705 4173	steven.lipkoe@illinois.gov
14.	Pam Broviak	IDOT - Prog.	847-705-4074	pamela.broviak@illinois.gov
15.	Brenda L. Alicea	IDOT - Prog.	847-705-4809	Brenda.Alicea@illinois.gov
16.	Chip O'Leary	FPCC	708 771 1008	charles.o'leary@cookcountyil.gov
17.	John McDonough	IDOT - Land Acq.	847-705-4321	john.mcdonough@illinois.gov
18.	John Baczek	IDOT P&ES	847 705 4104	john.baczek@illinois.gov
19.	JOHN STERNBERG	FPCC	708-771-1192	john.sternberg@cookcountyil.gov
20.	Chris Slattery	FPCC	708-771-1572	chris.slattery@ "
21.	Dave Kircher	FPCC	708-771-1172	david.kircher@cookcountyil.gov
22.	ADWAN NAMMARI	"	708-771-1357	adnan.nammari@cookcountyil.gov



Illinois Department of Transportation

Attendance Roster

Bureau: PROGRAMMING Section: PROJECT STUDIES

Project/Topic: FPOCC/IDOT QUARTERLY MEETING

Date: AUGUST 1ST 2014

Time: 9:00 AM

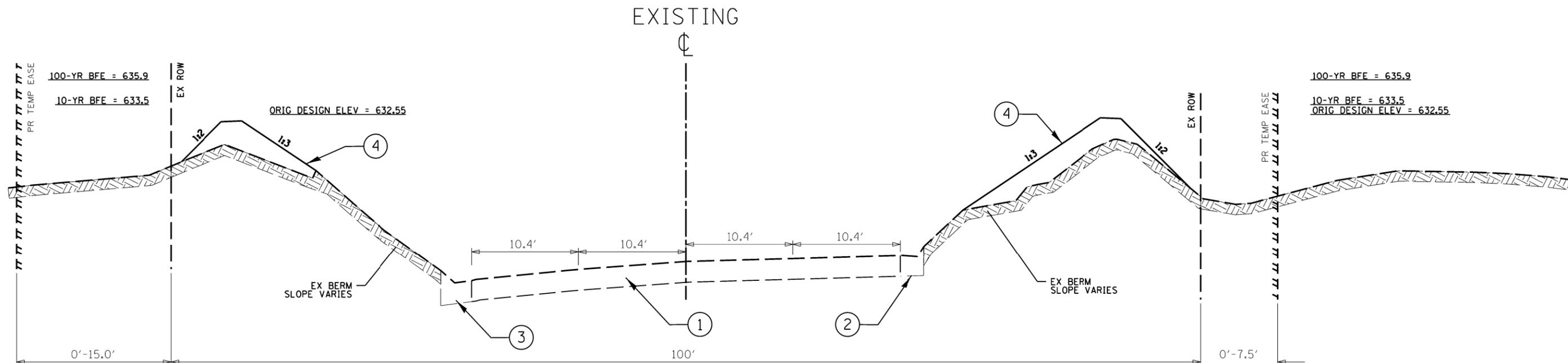
Location: IDOT SCHAUMBURG OFFICE

	Attendees	Representing	Phone Number	Email Address
1.	JASON SALLEY	IDOT PRES	847/705-4085	JASON.SALLEY@ILLINOIS.GOV
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3.	ESTHER WINDGRAD	IDOT - PROG/HYD	847/705-4475	esther.windgrad@illinois.gov
4.	Mark Somers	IDOT LAND MGR	847-705-4190	Mark.Somers@Illinois.gov
5.	Theresa Pelletier	IDOT Program	847-705-4479	theresapelletier
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**Section 4(f) *De Minimis* Documentation
Kloempken Prairie and Big Bend Lake
Forest Preserve District of Cook County**

Attachment D

Proposed Improvement Plans
Proposed Plan and Profile Sheets
Cross Sections

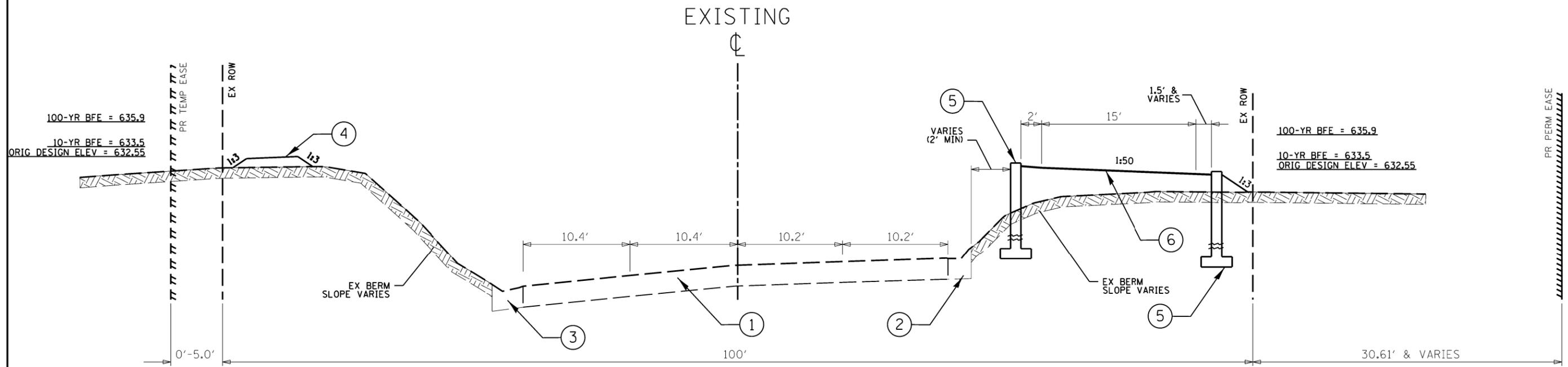


LEGEND

- ① EX ROADWAY PAVEMENT
- ② EX CURB & GUTTER
- ③ EX "V" TYPE C & G
- ④ PR BERM MAINTENANCE

C-1

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		DATE -	REVISED -								ILLINOIS FED. AID PROJECT		



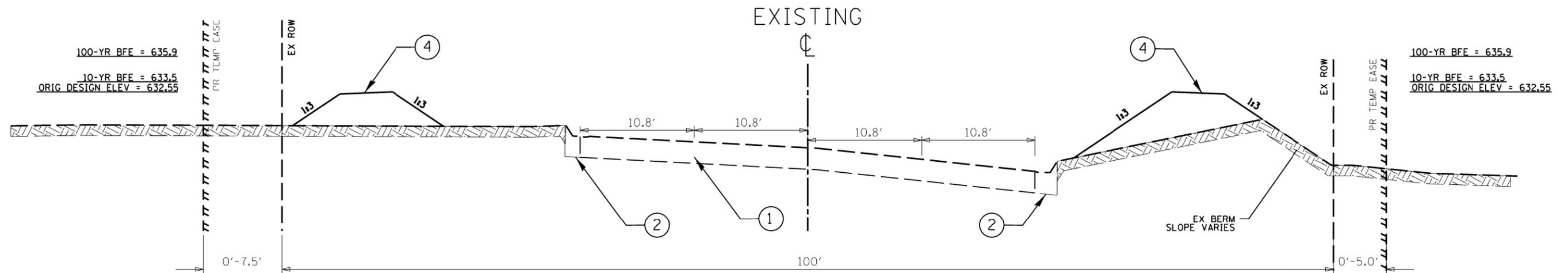
LEGEND

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- ② EX CURB & GUTTER
- ③ EX "V" TYPE C & G
- ④ PR BERM MAINTENANCE
- ⑤ PR RETAINING WALL*
- ⑥ PR ACCESS DRIVE

* SCHEMATIC RETAINING WALL IS SHOWN. STRUCTURAL DESIGN OF RETAINING WALL TO BE COMPLETED IN PHASE II.

C-1

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		CHECKED -	REVISED -								CONTRACT NO.		
		DATE -	REVISED -								ILLINOIS FED. AID PROJECT		



LEGEND

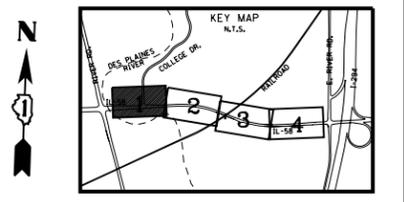
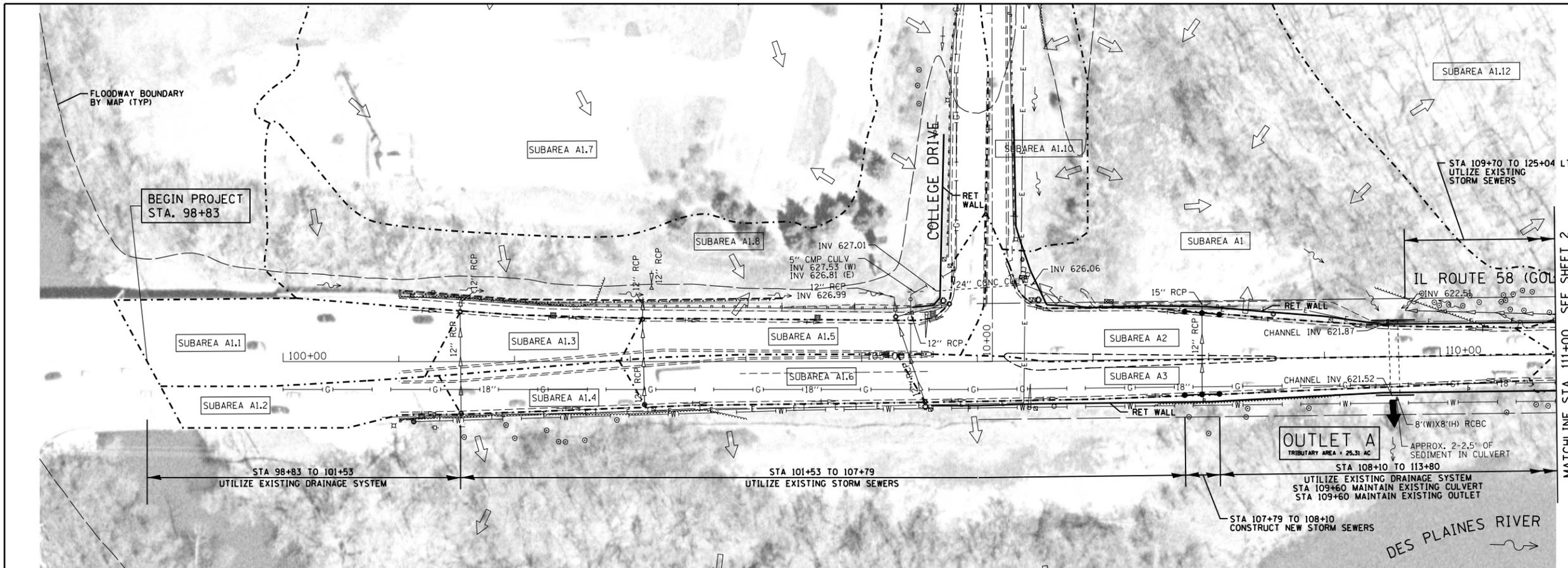
- ① EX ROADWAY PAVEMENT
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- ③ EX "V" TYPE C & G
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- ⑤ PR RETAINING WALL

C-1

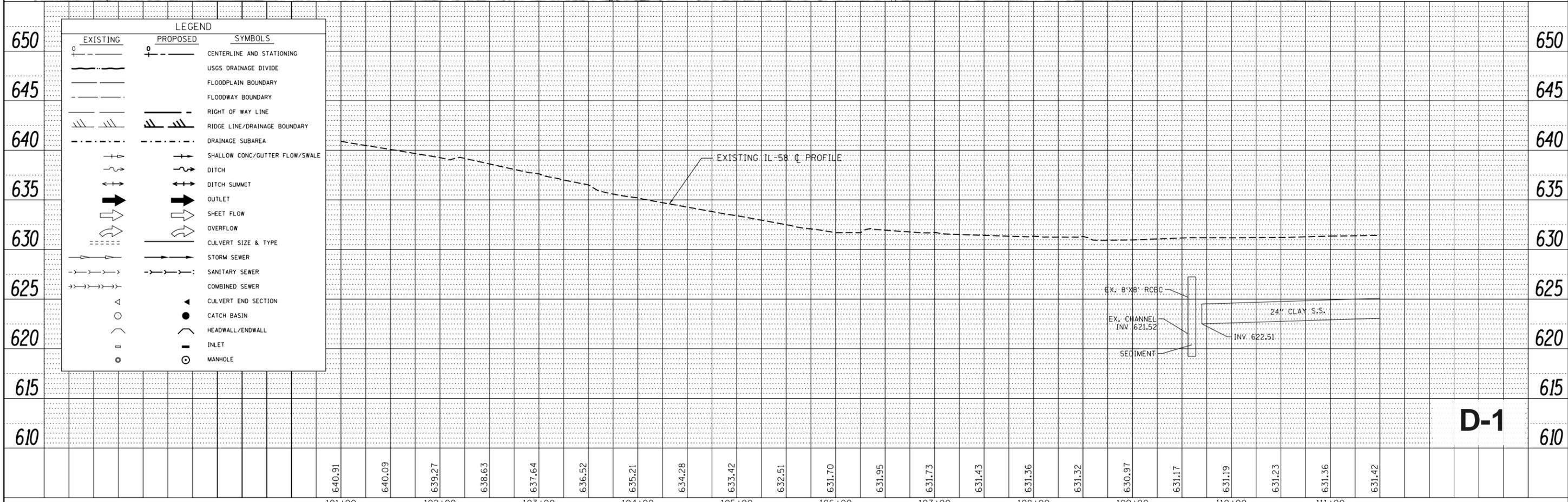
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											ILLINOIS FED. AID PROJECT		

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	ALIGNMENT CHECKED		
	STRUCTURE NOTATIONS CHECKED		
	FILE NAME		
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PROFILE	SURVEYED	BY	DATE
	PLOTTED		
	GRADES CHECKED		
	ALIGNMENT CHECKED		
	STRUCTURE NOTATIONS CHECKED		
	FILE NAME		
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REFER TO APPENDIX D.5 OF LDS FOR PROPOSED BERM MAINTENANCE ELEVATIONS AND PROFILE

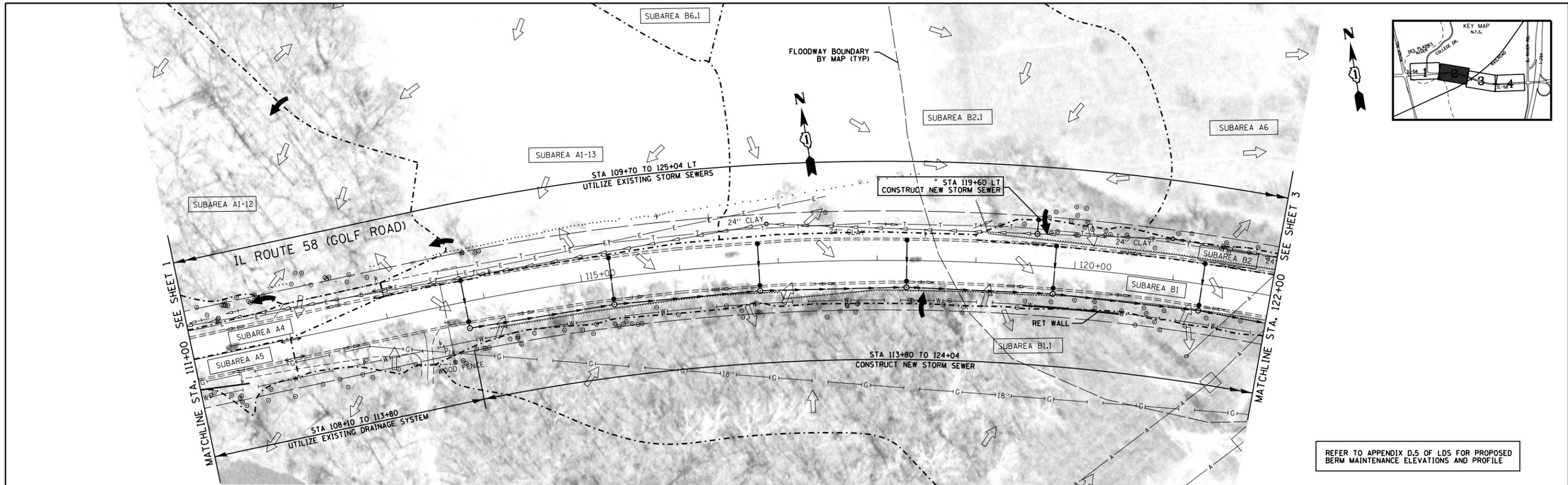


LEGEND		
EXISTING	PROPOSED	SYMBOLS
—+—	—+—	CENTERLINE AND STATIONING
—	—	USGS DRAINAGE DIVIDE
—	—	FLOODPLAIN BOUNDARY
—	—	FLOODWAY BOUNDARY
—	—	RIGHT OF WAY LINE
—	—	RIDGE LINE/DRAINAGE BOUNDARY
—	—	DRAINAGE SUBAREA
—	—	SHALLOW CONC/GUTTER FLOW/SWALE
—	—	DITCH
—	—	DITCH SUMMIT
—	—	OUTLET
—	—	SHEET FLOW
—	—	OVERFLOW
—	—	CULVERT SIZE & TYPE
—	—	STORM SEWER
—	—	SANITARY SEWER
—	—	COMBINED SEWER
—	—	CULVERT END SECTION
—	—	CATCH BASIN
—	—	HEADWALL/ENDWALL
—	—	INLET
—	—	MANHOLE

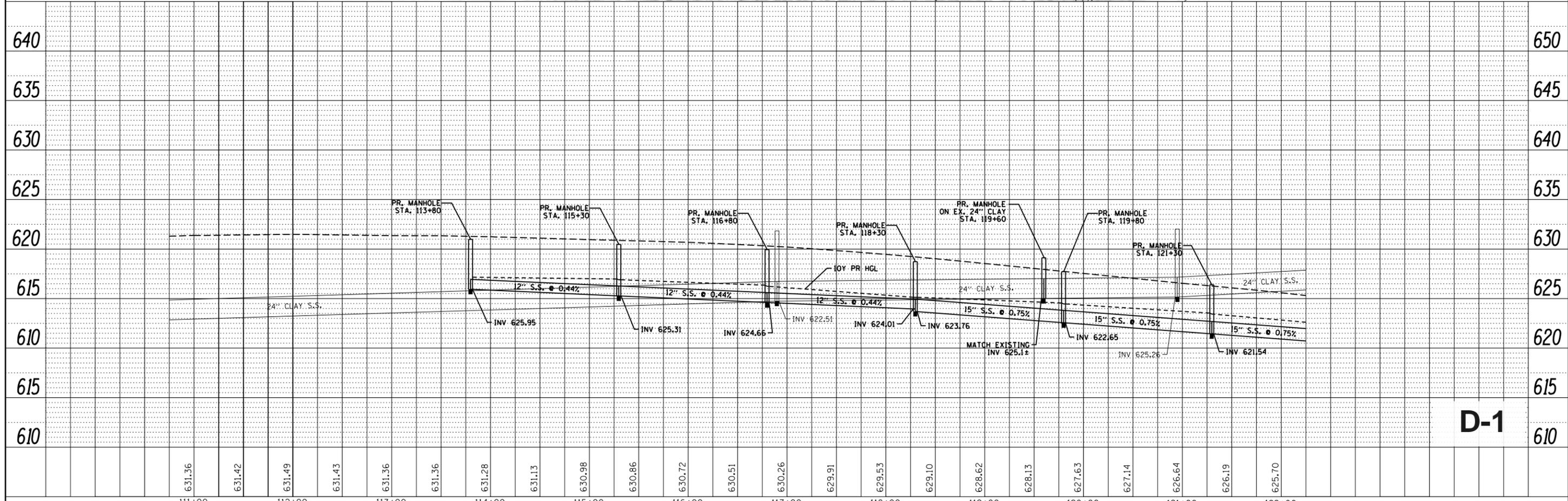
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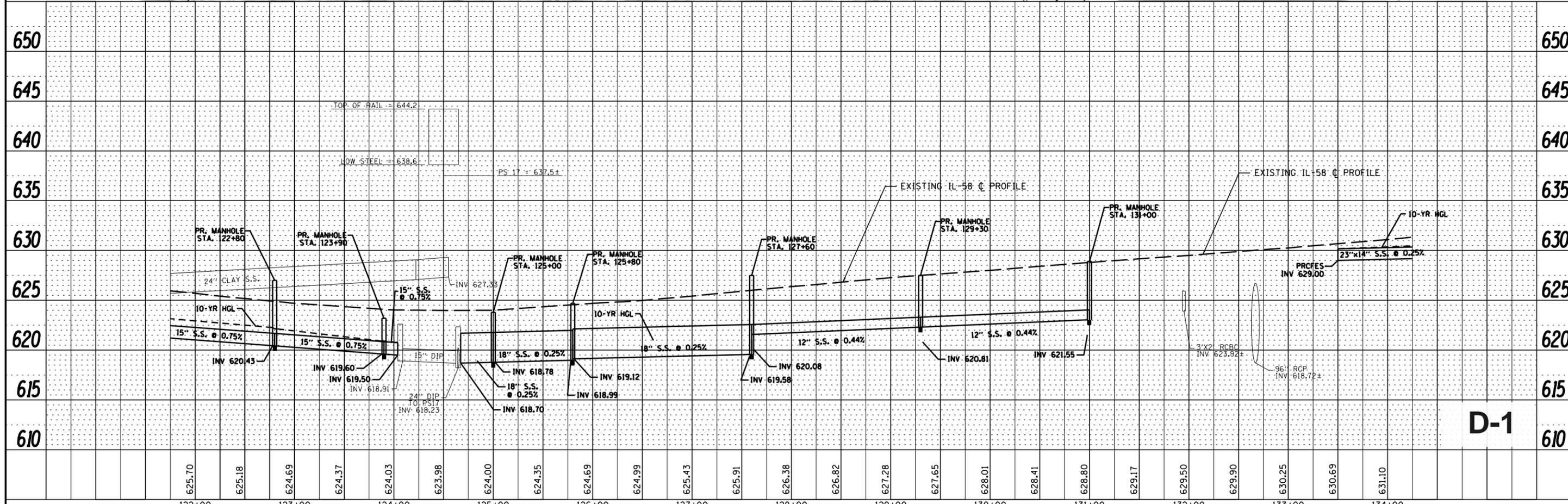
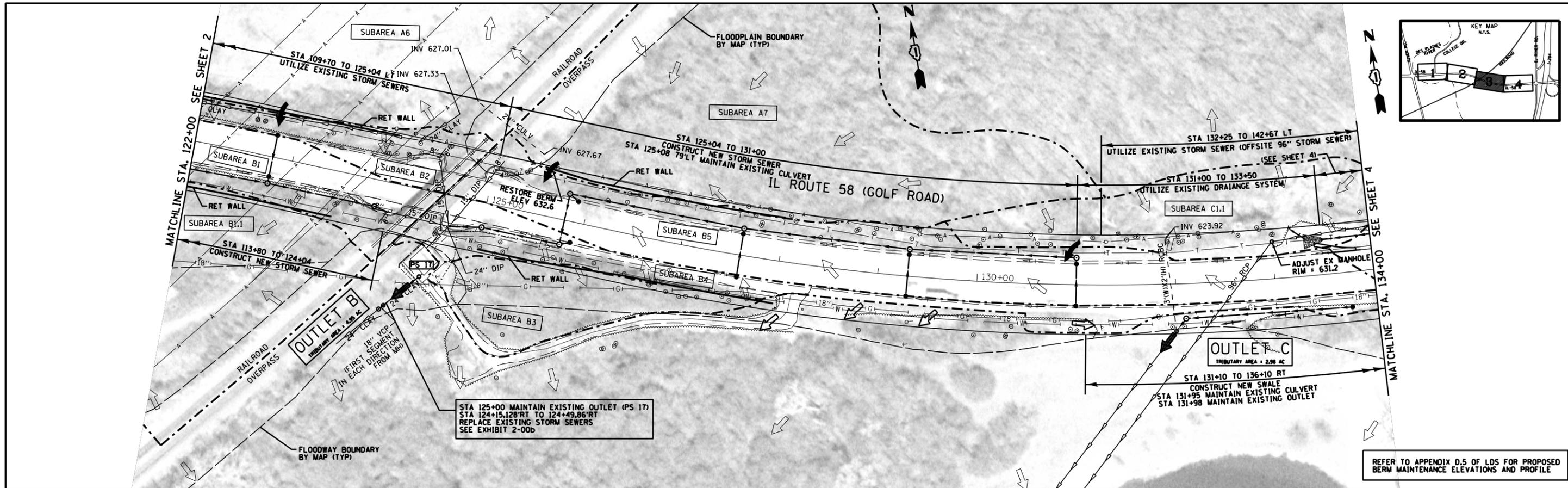


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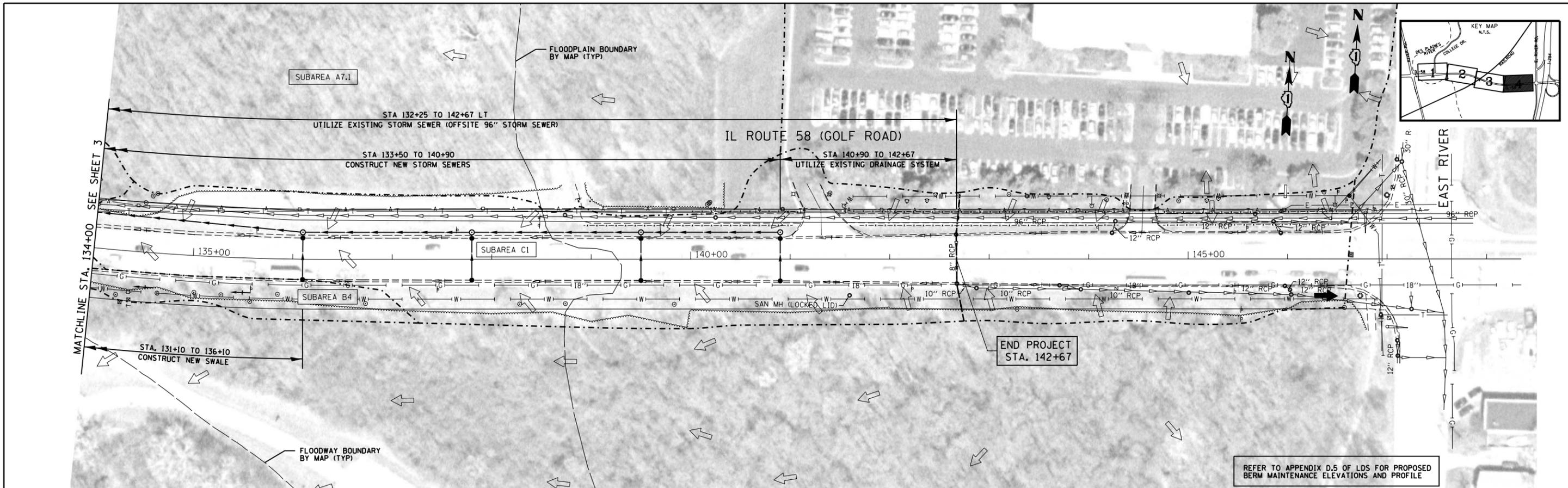
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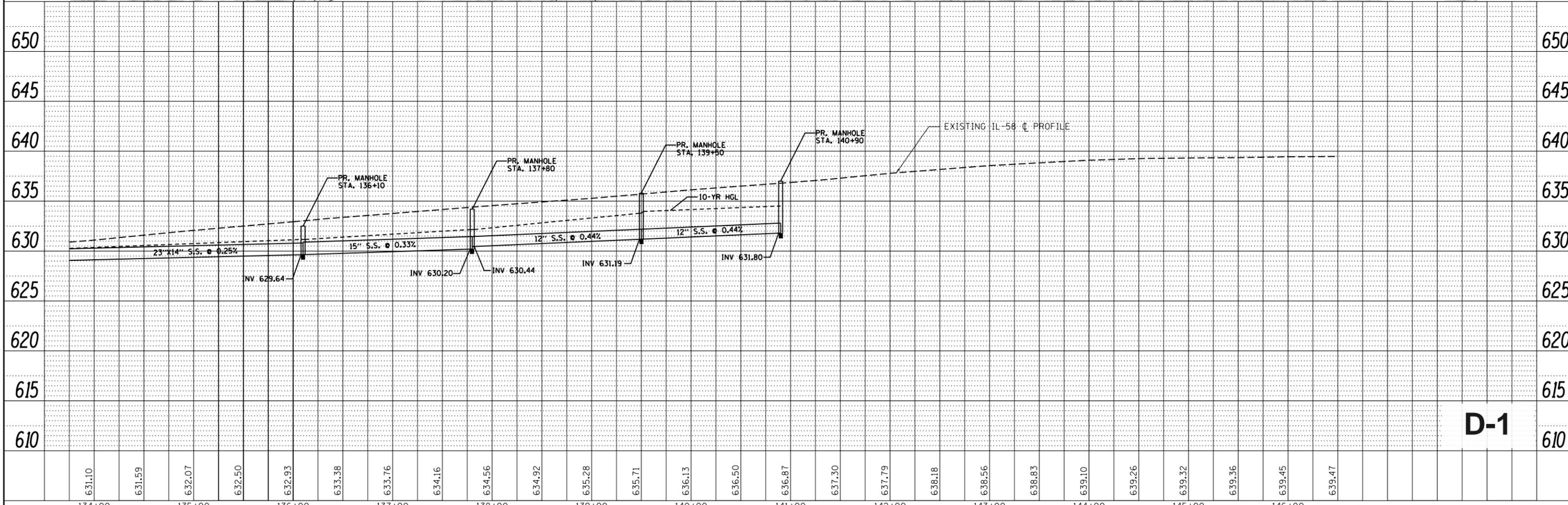
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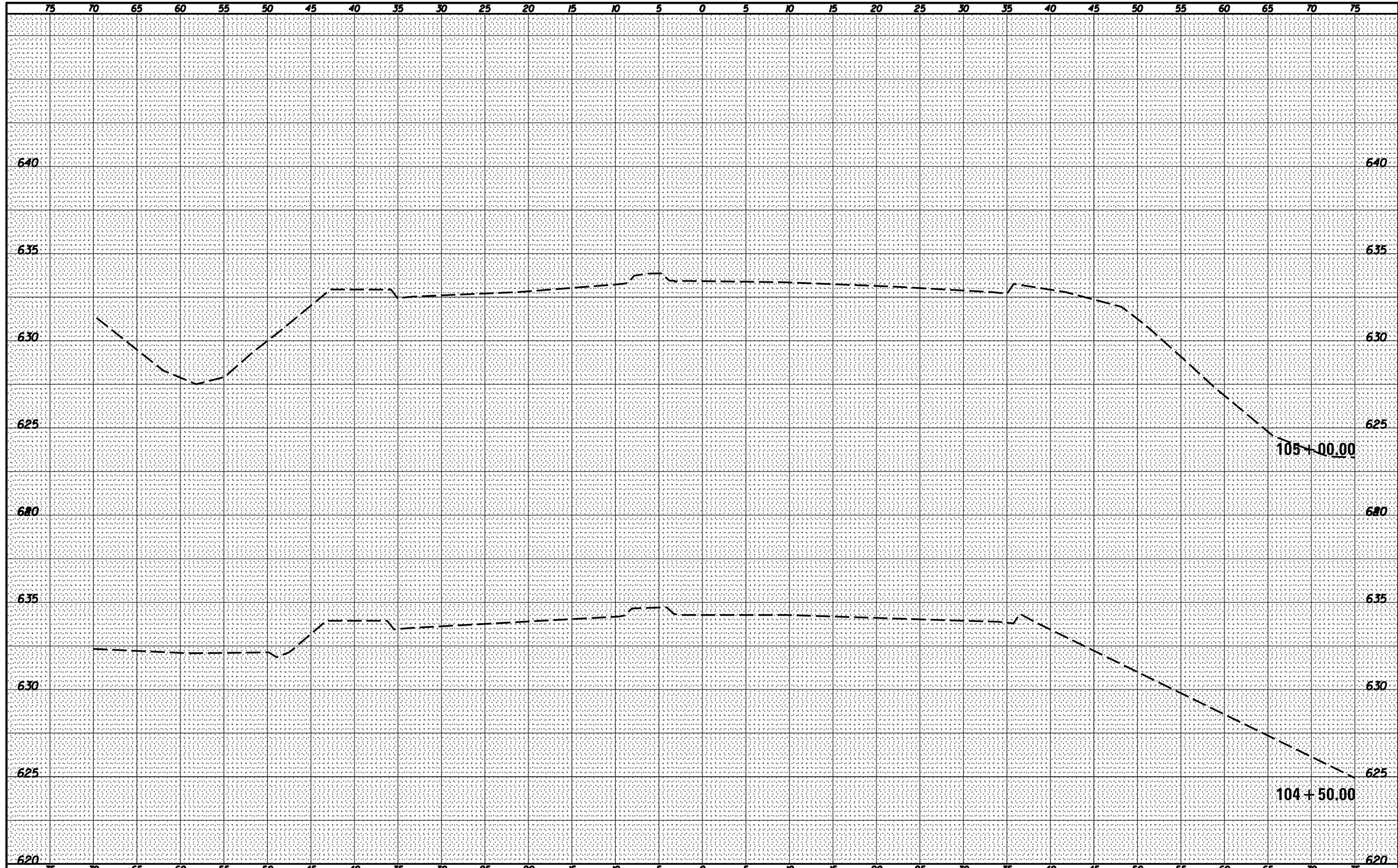


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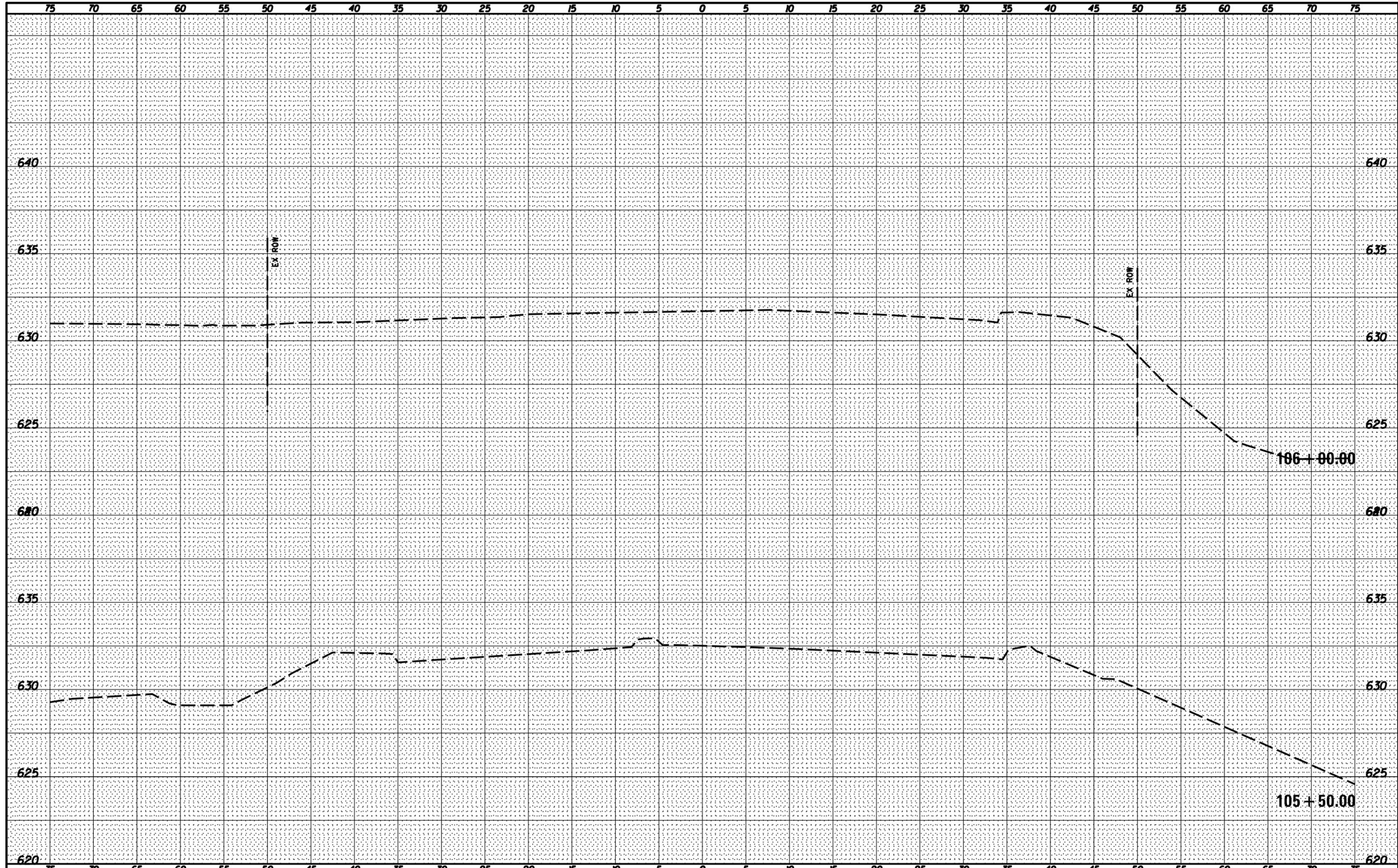
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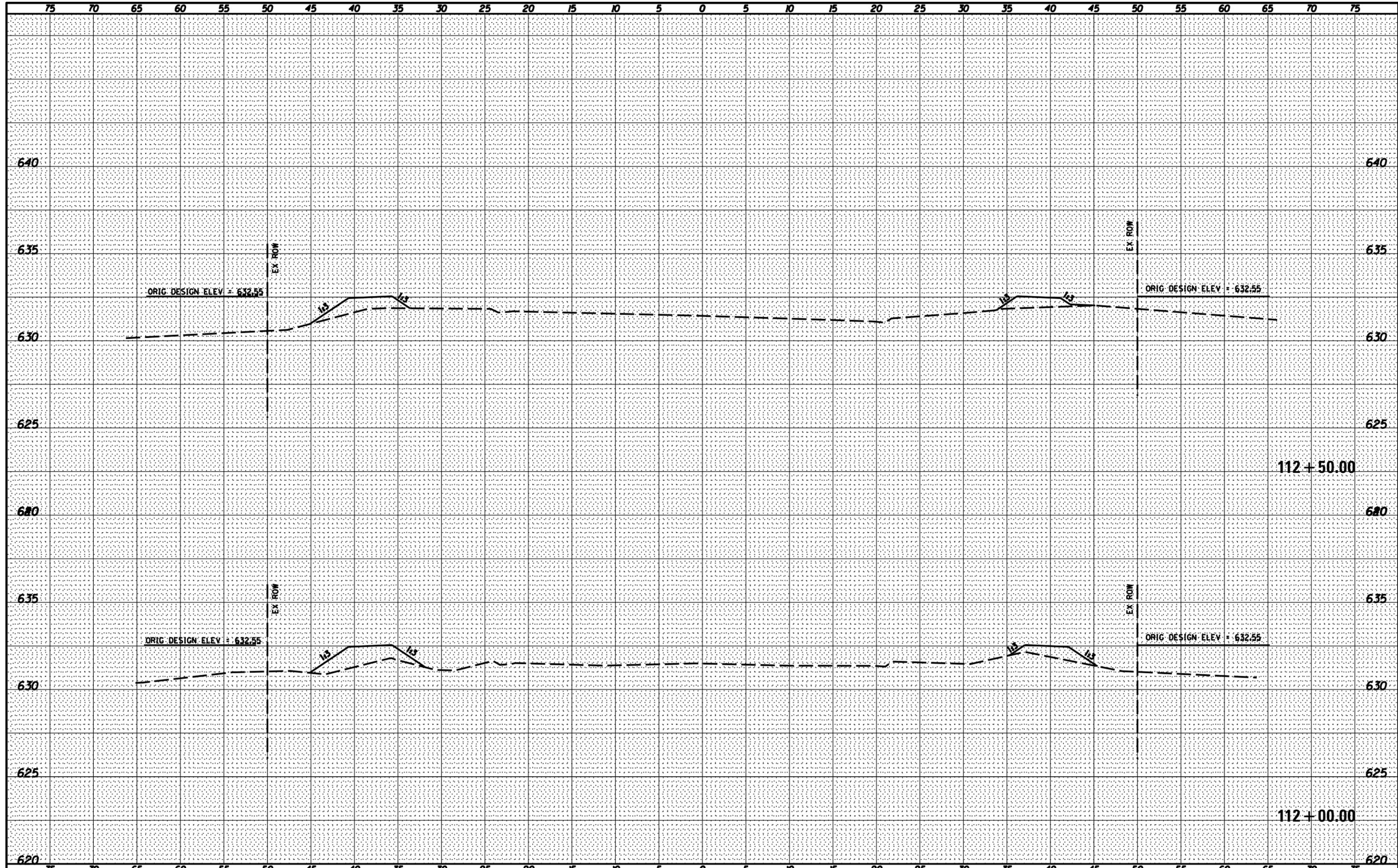
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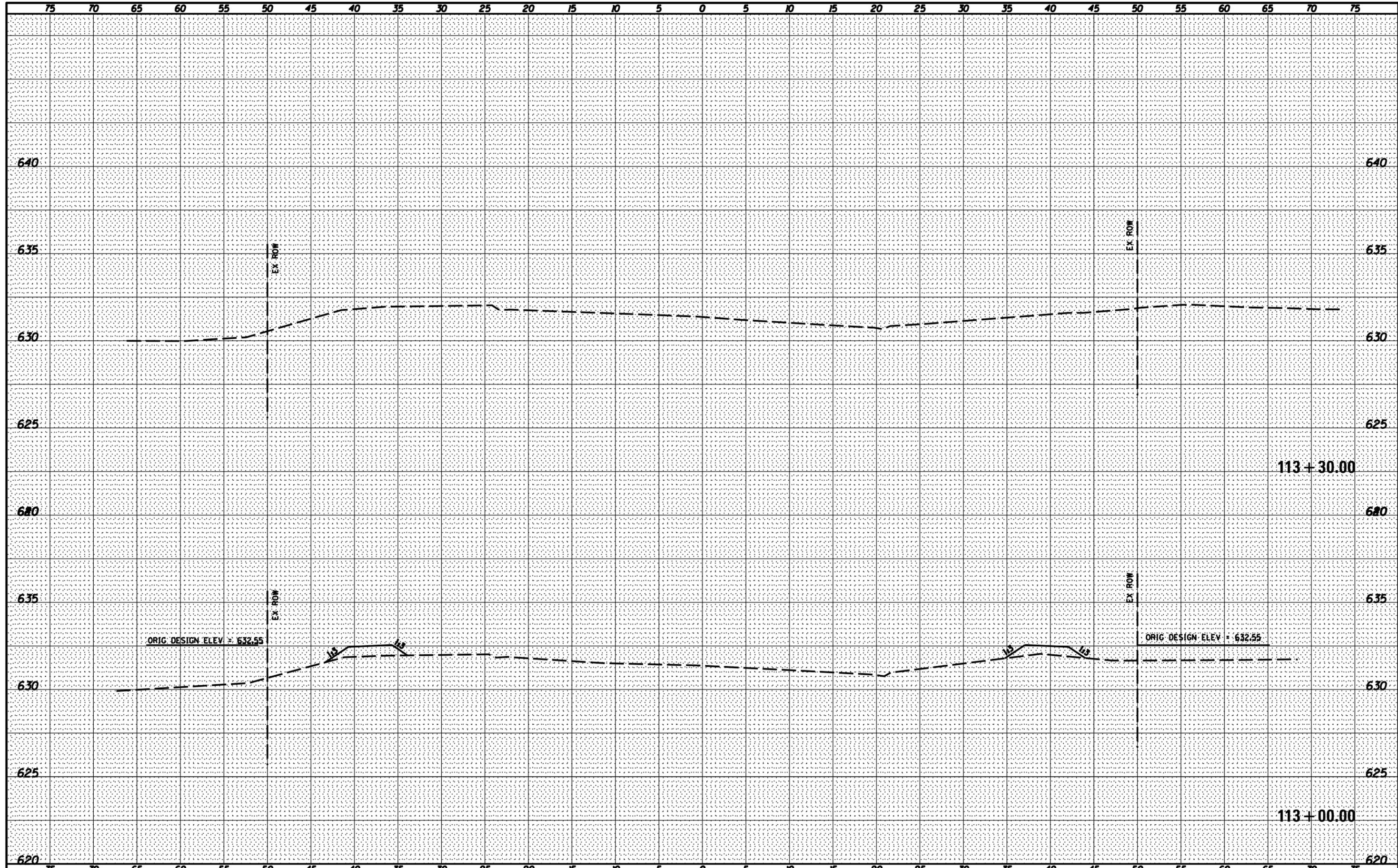
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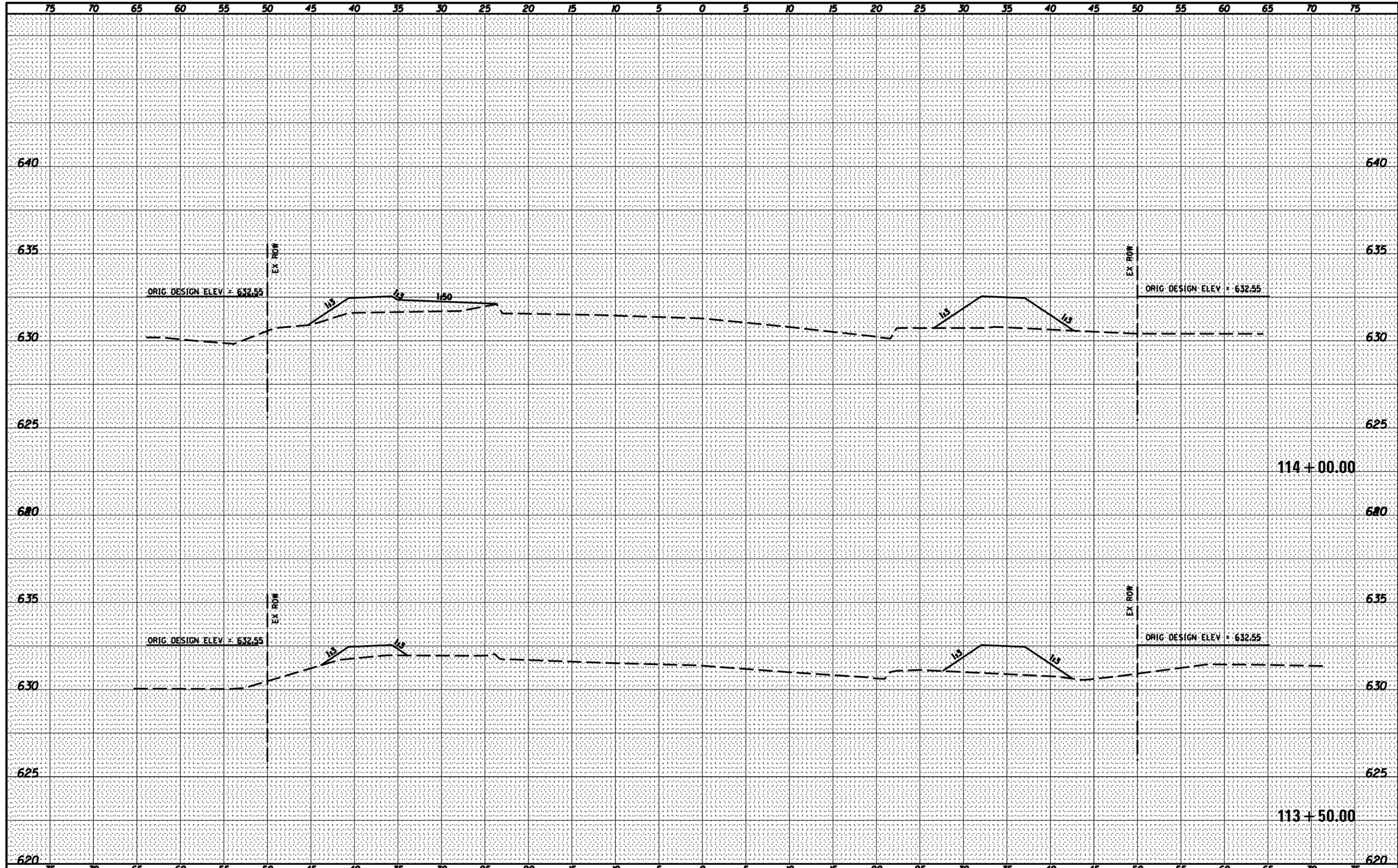
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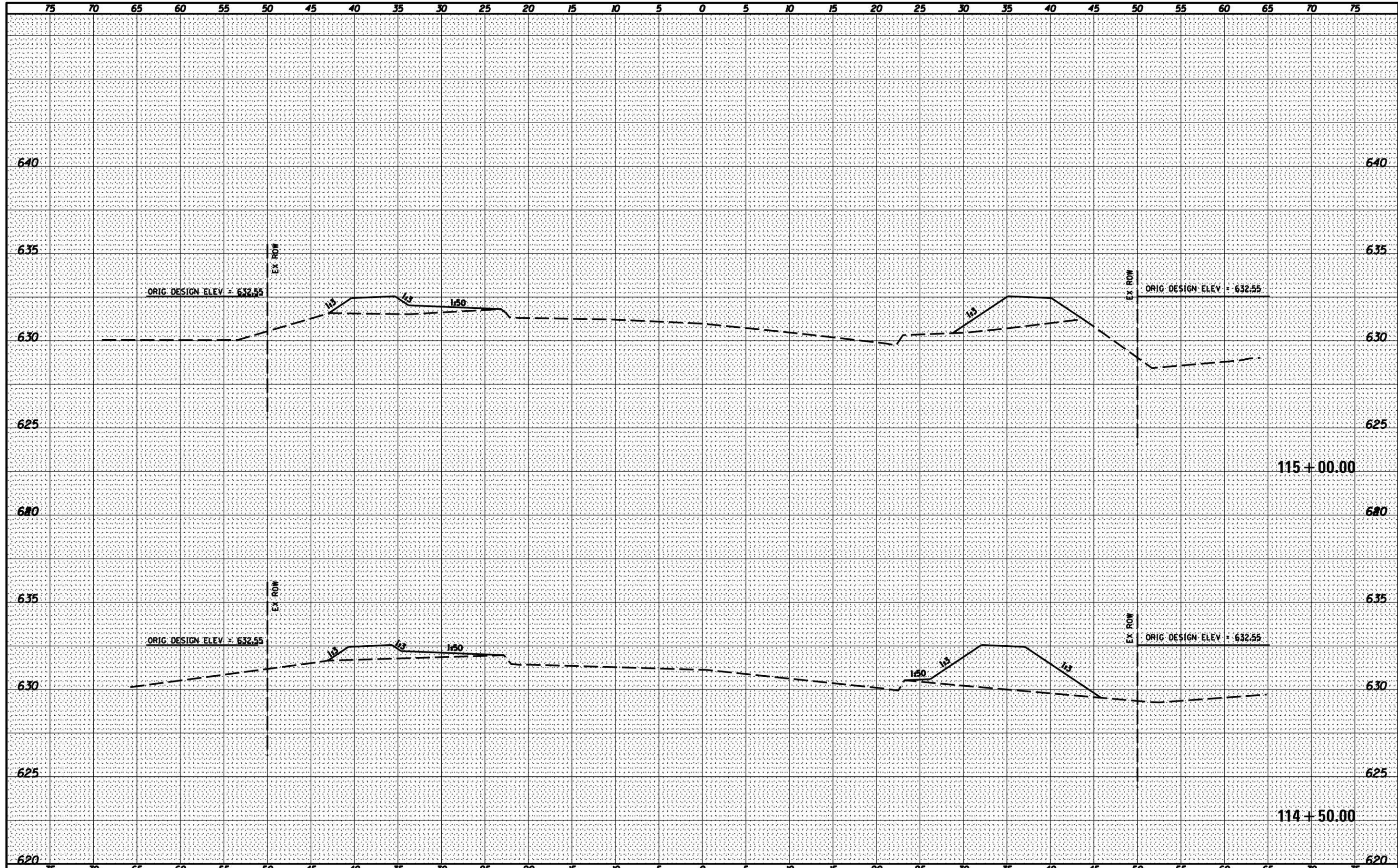
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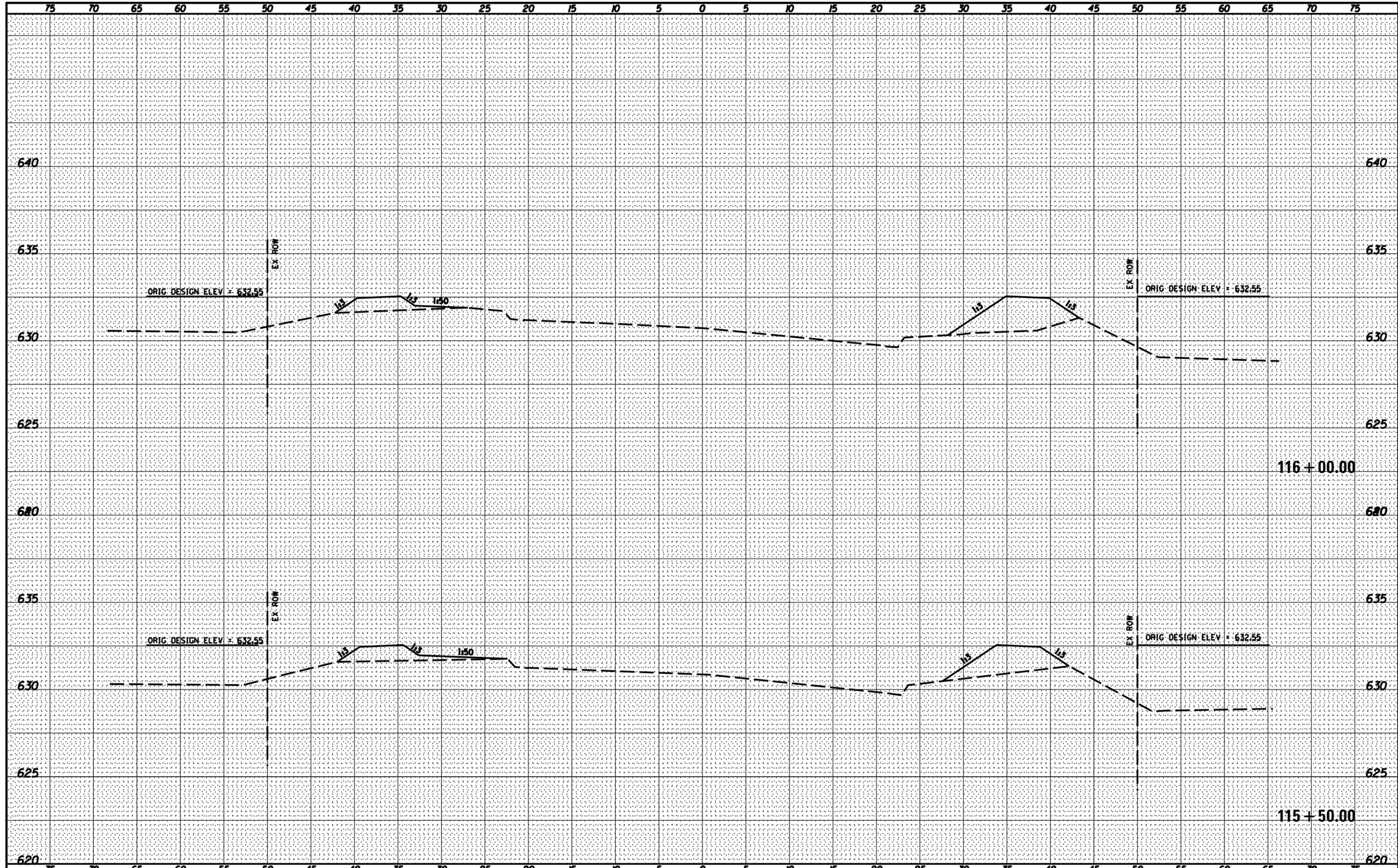
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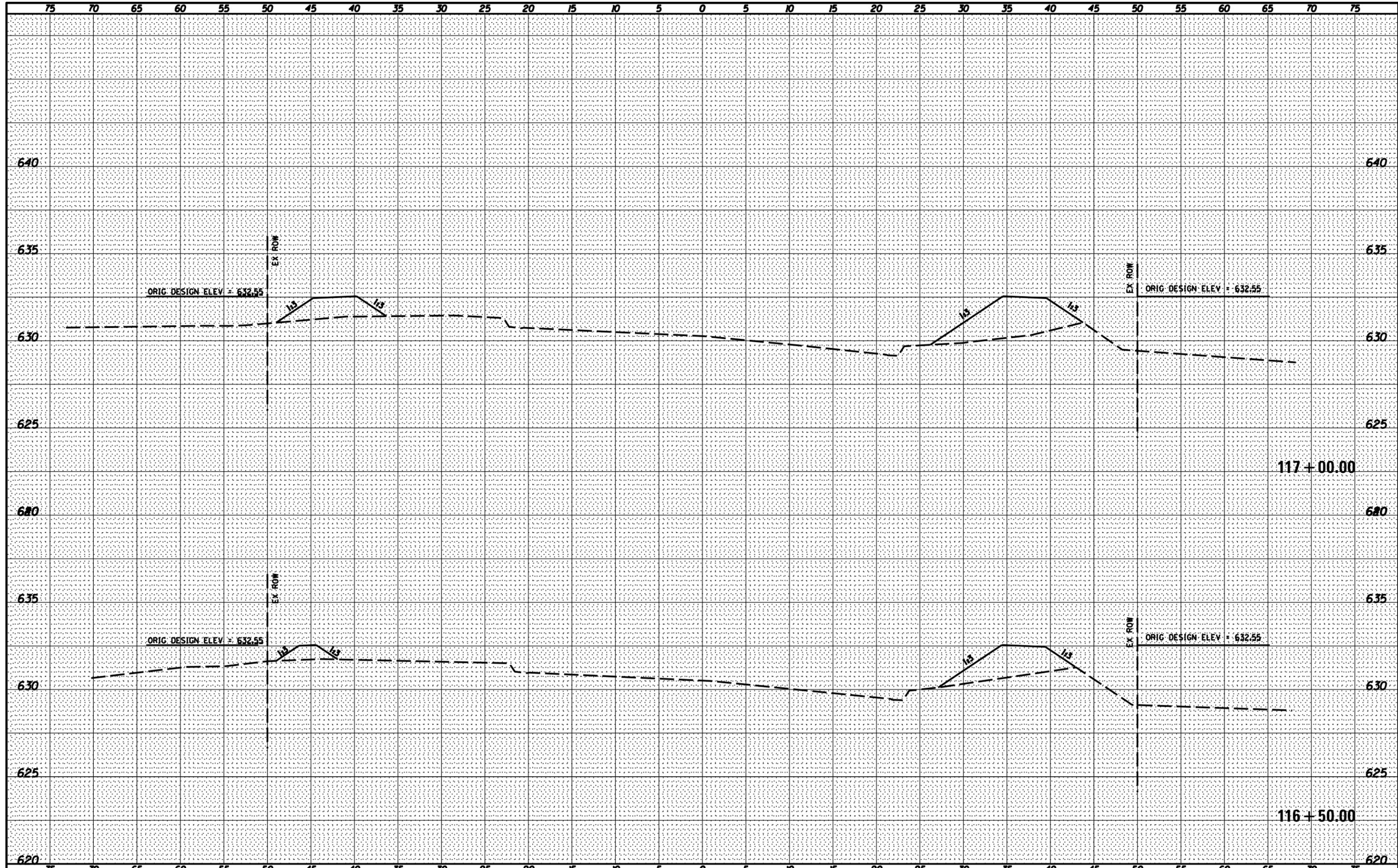
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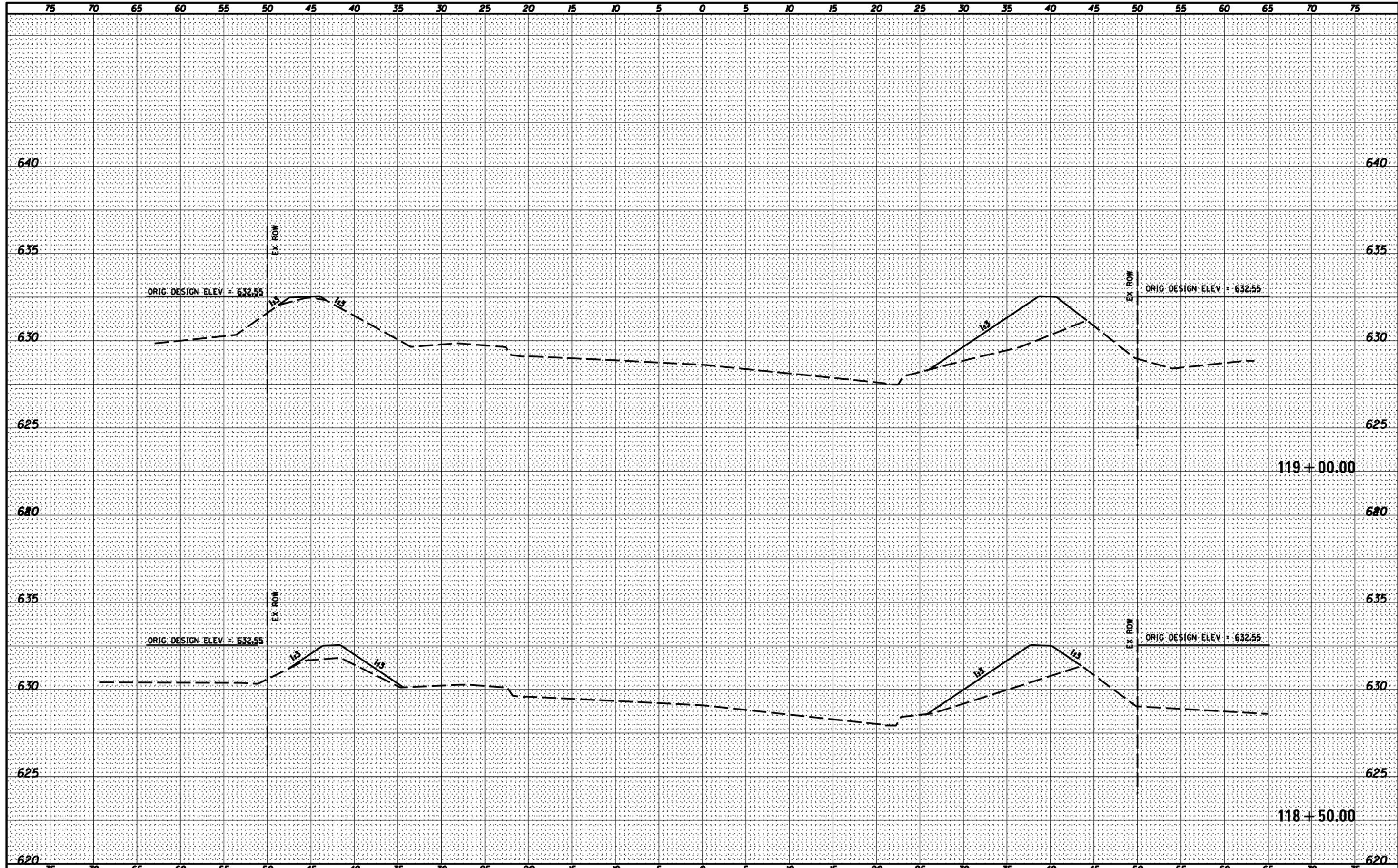
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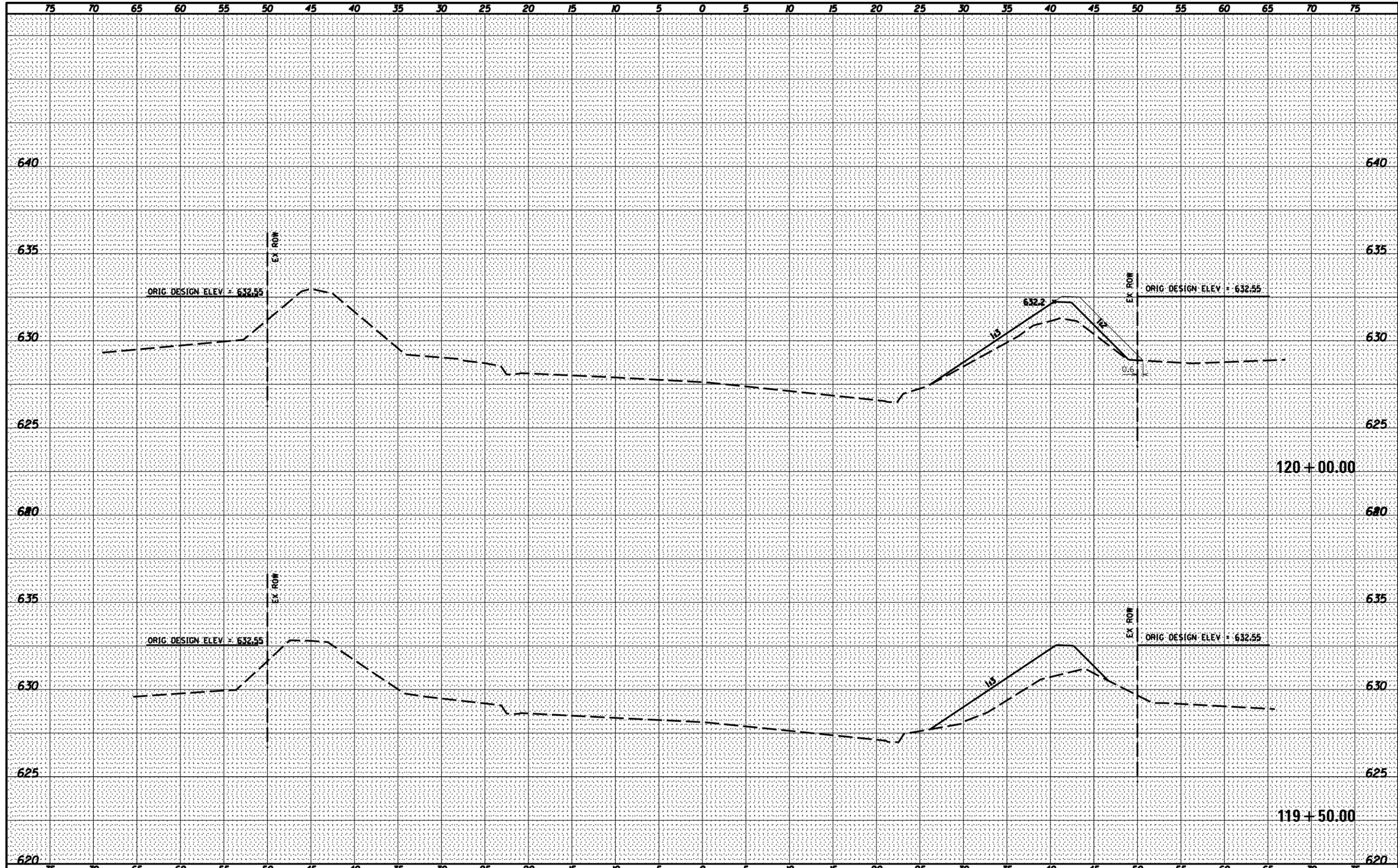
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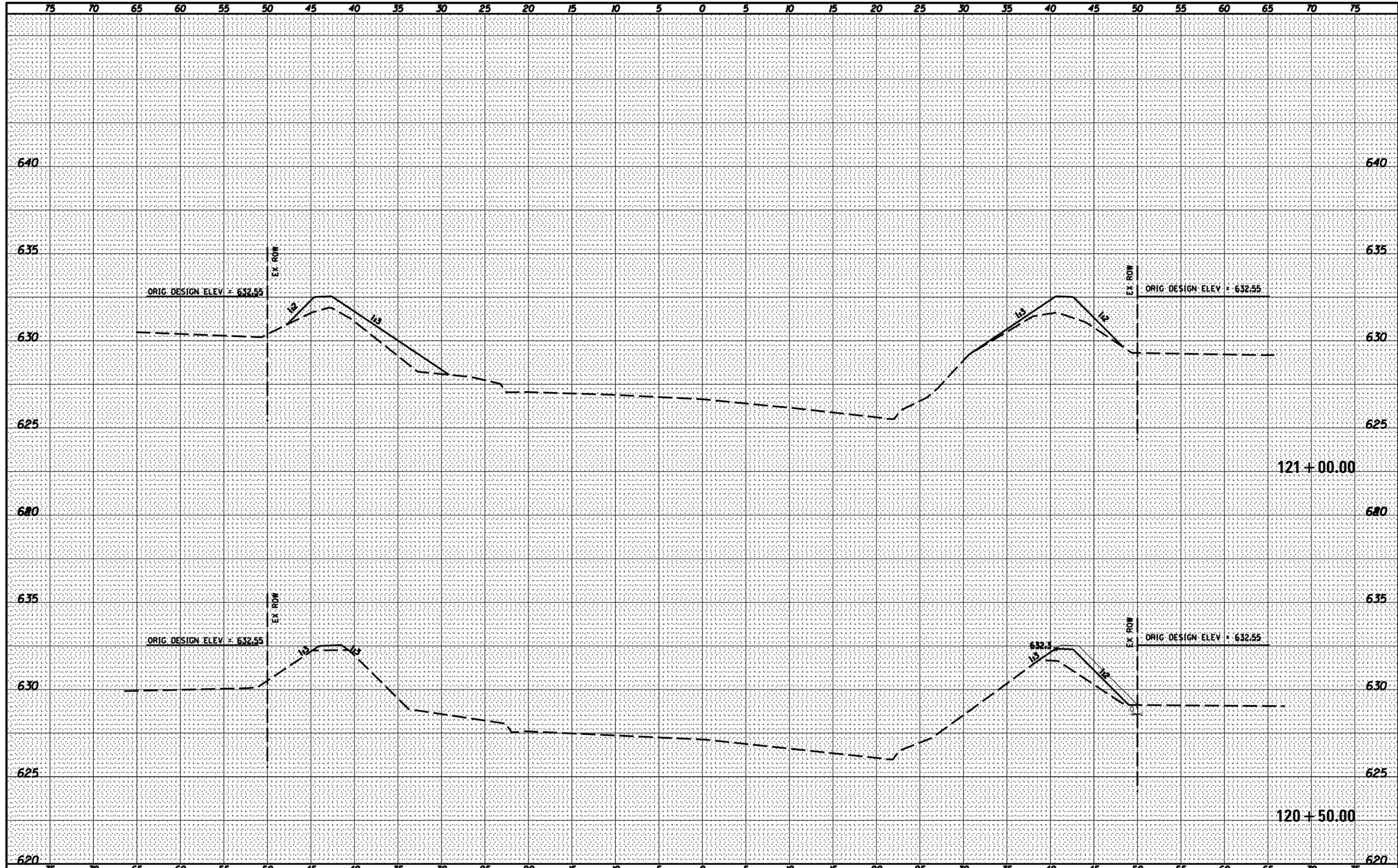
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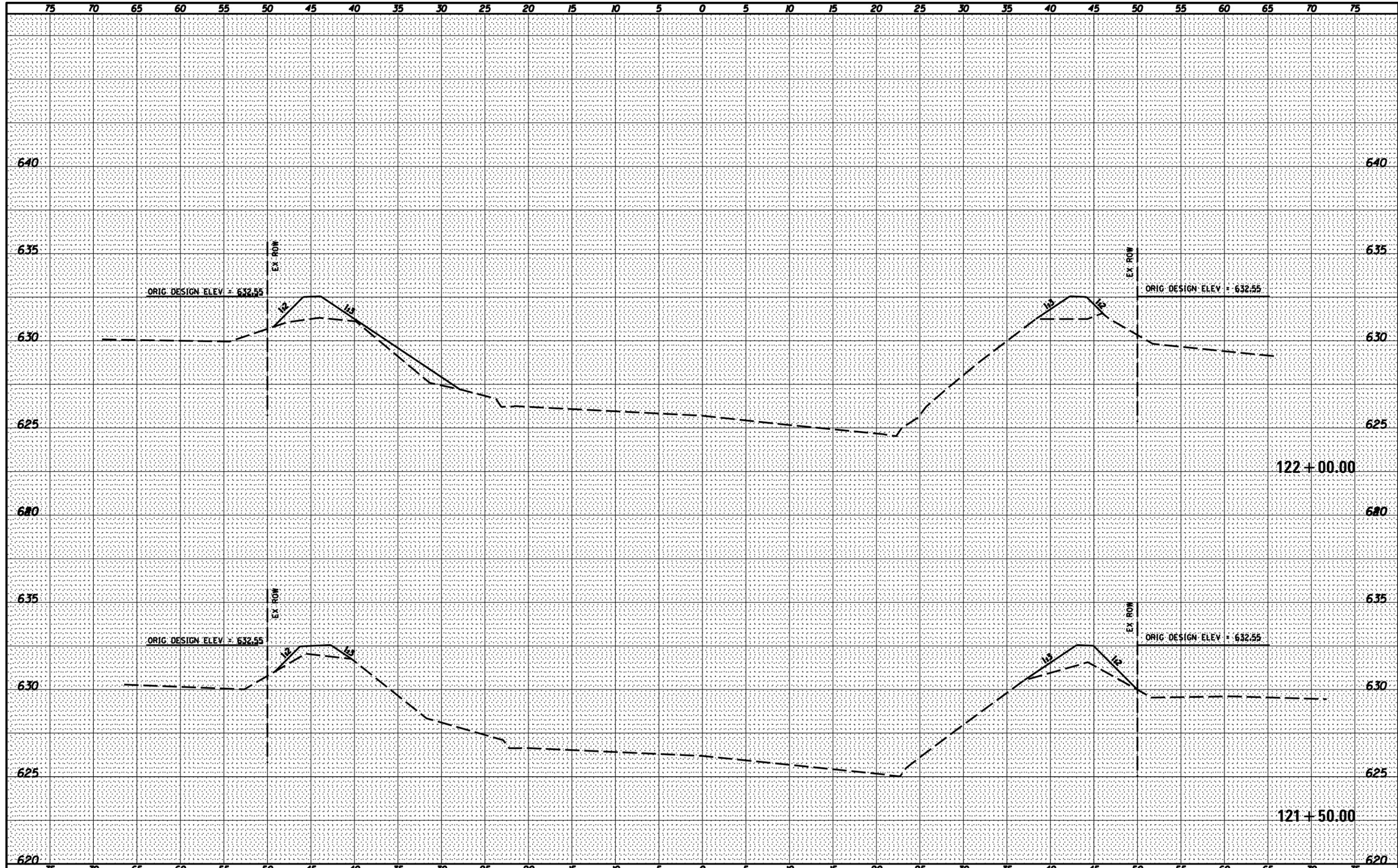
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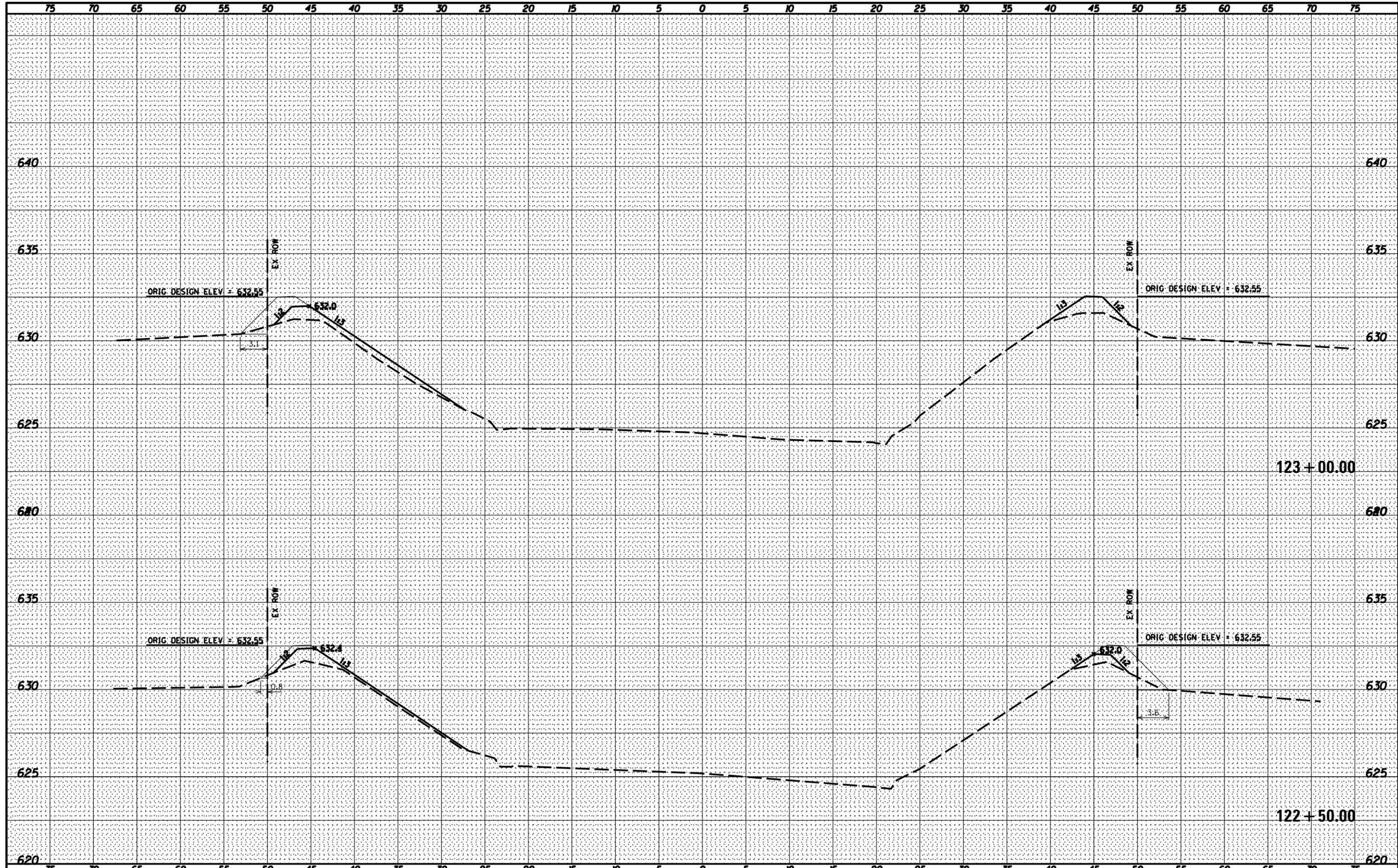
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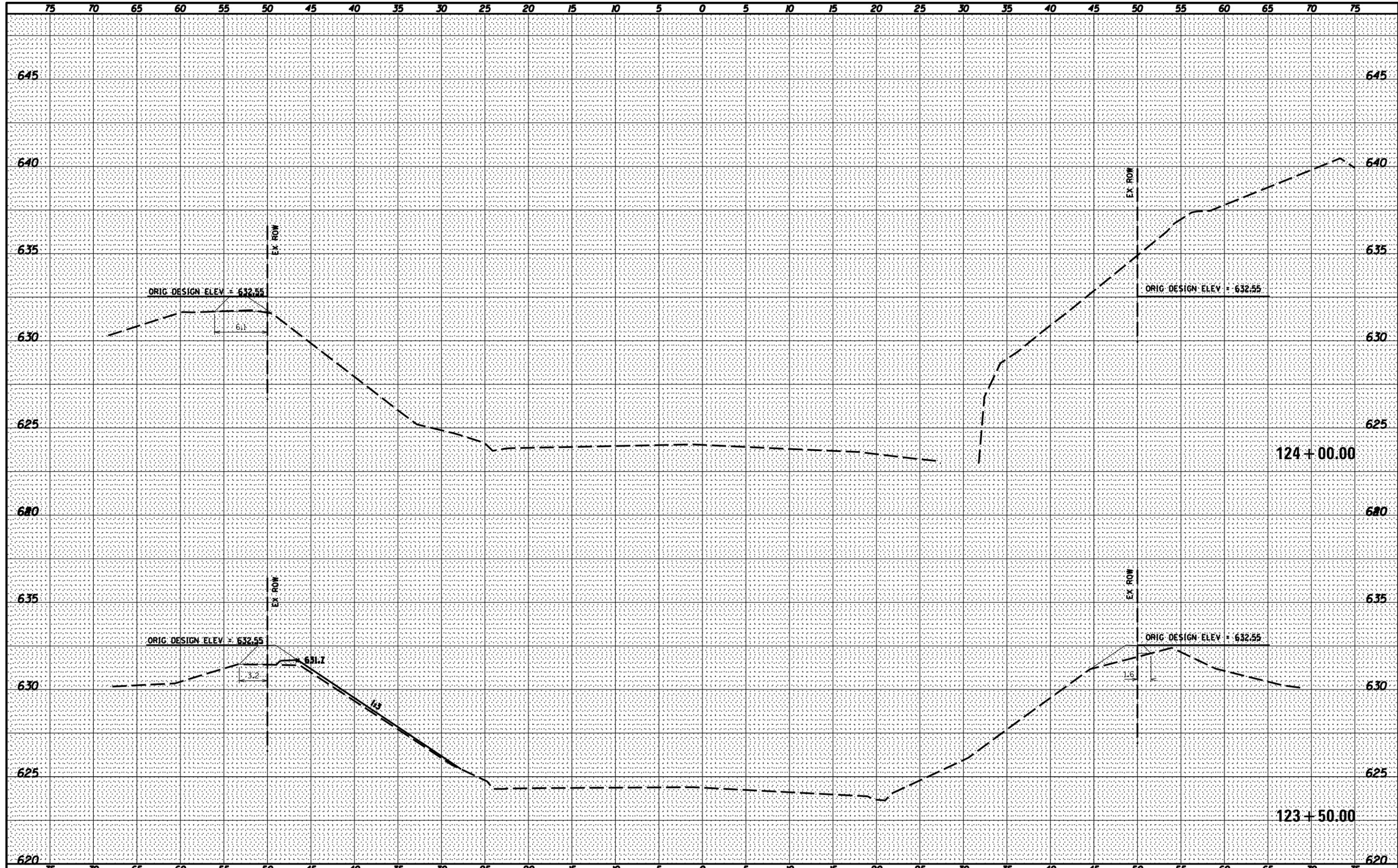
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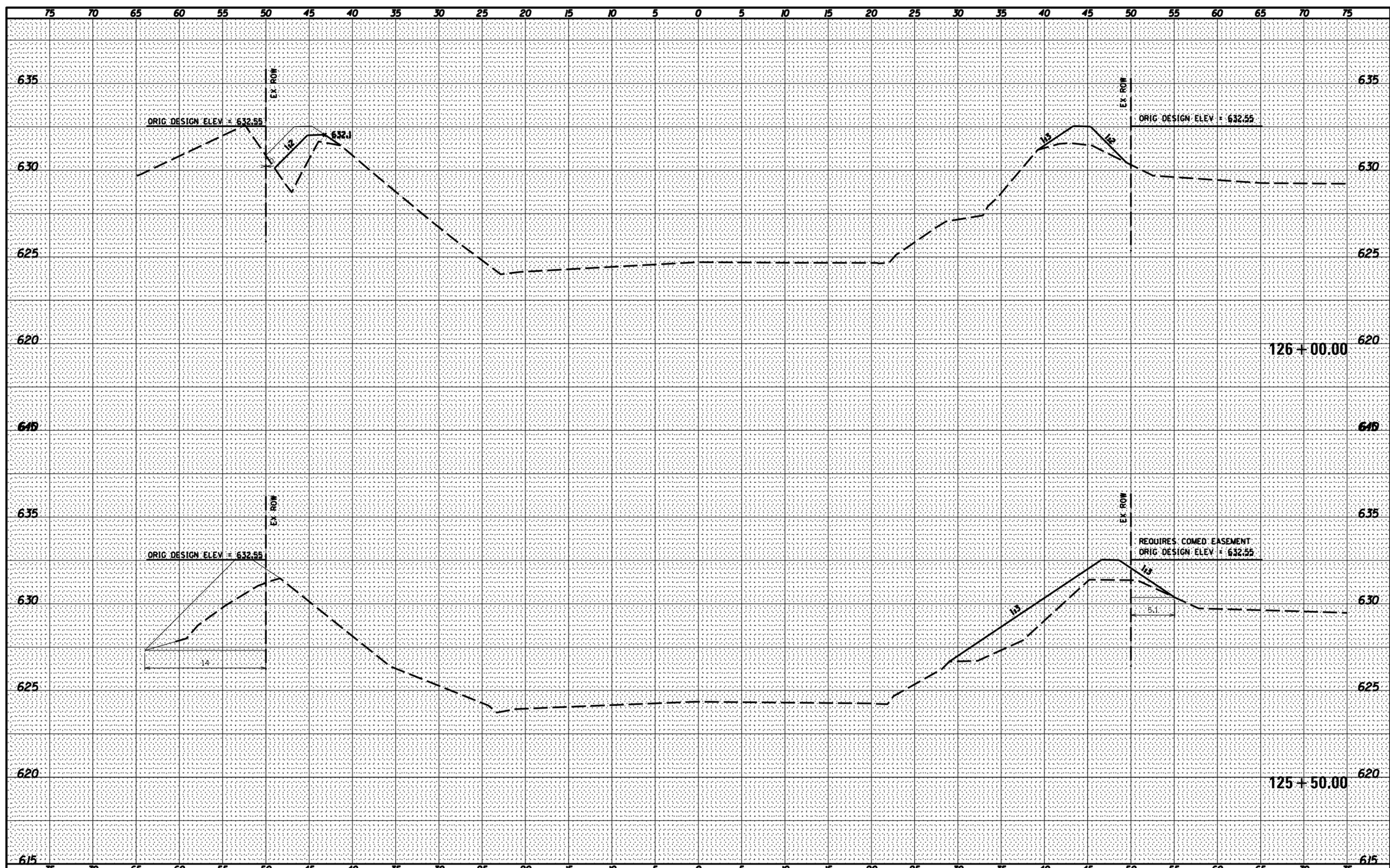
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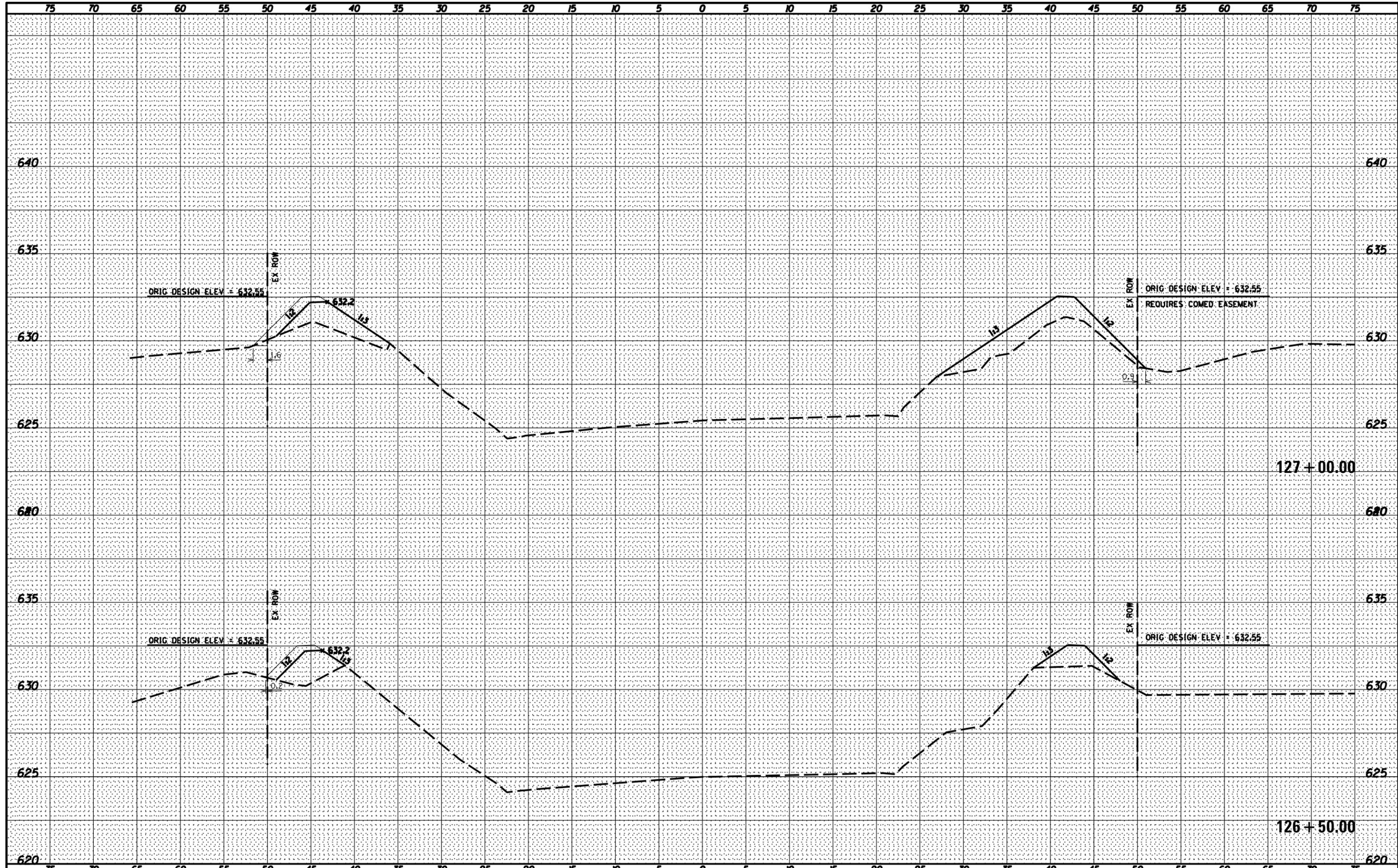


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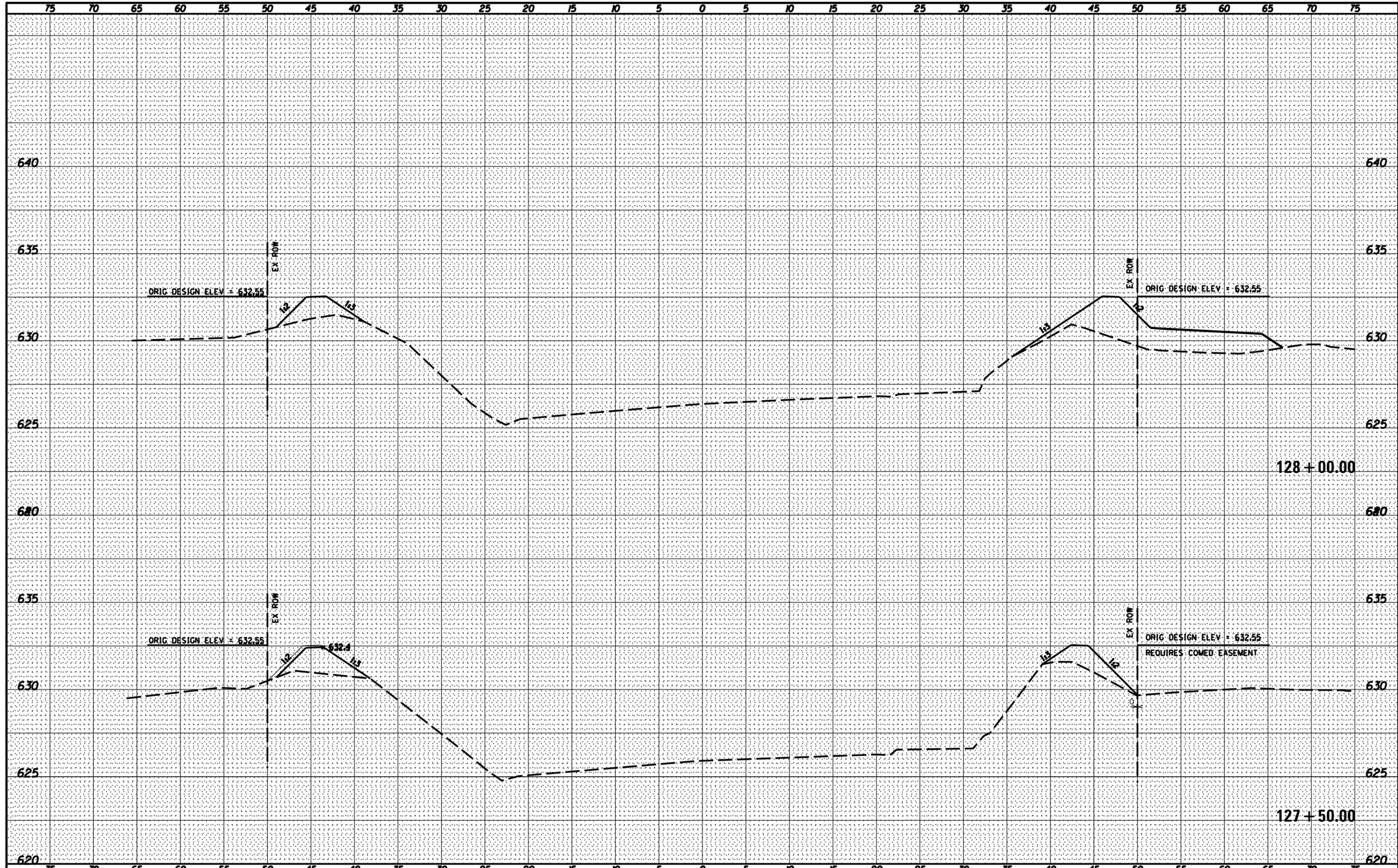
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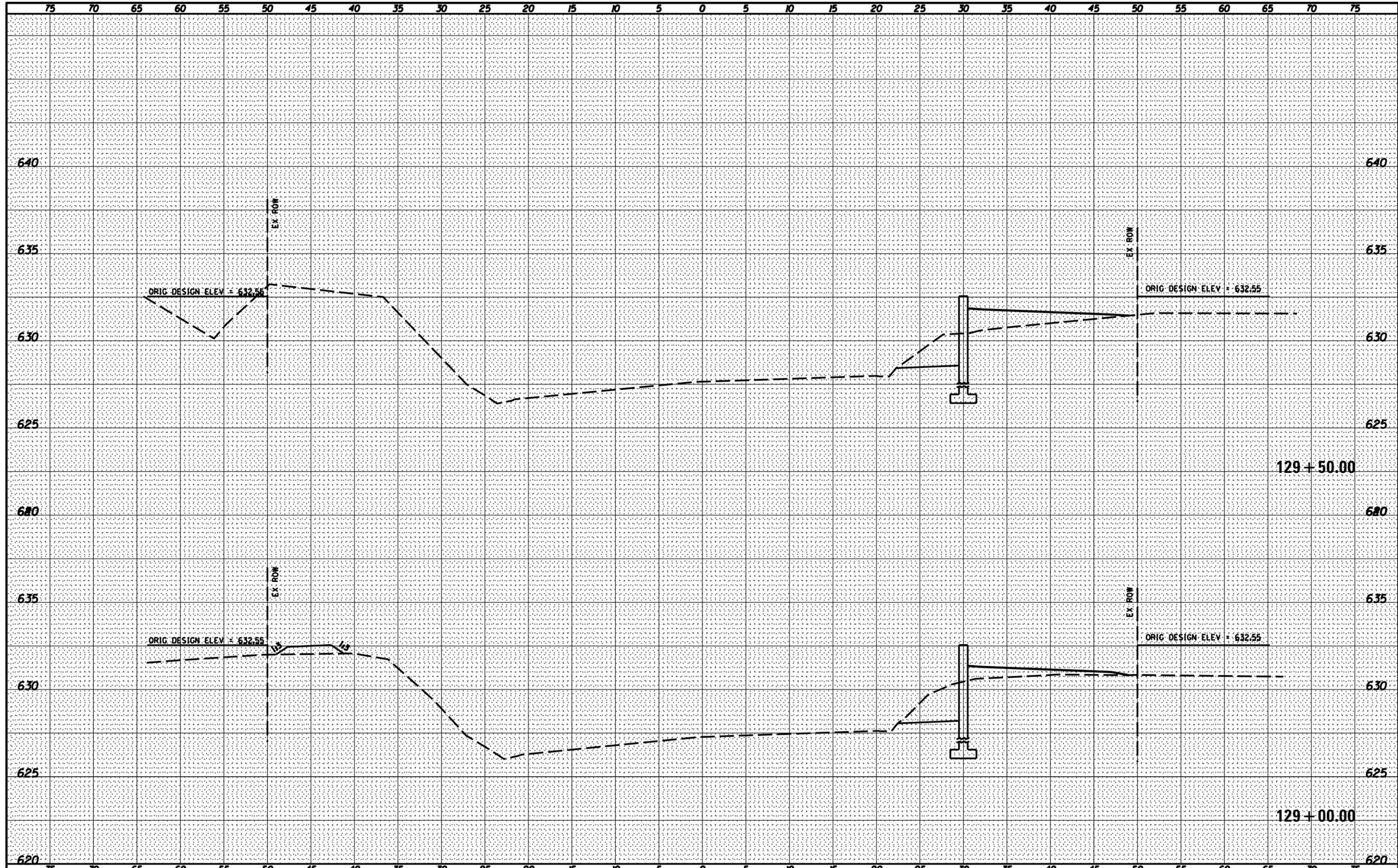
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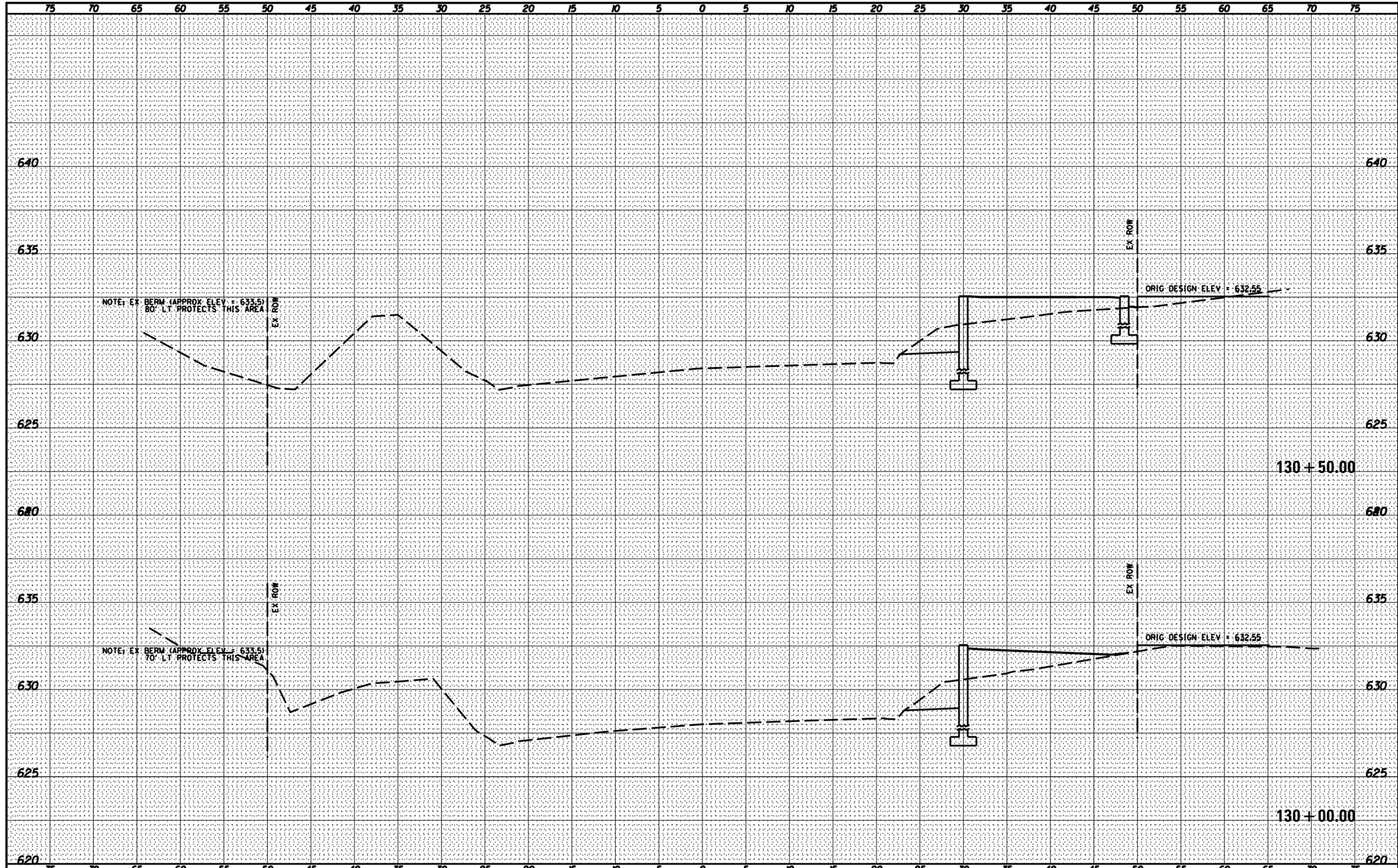
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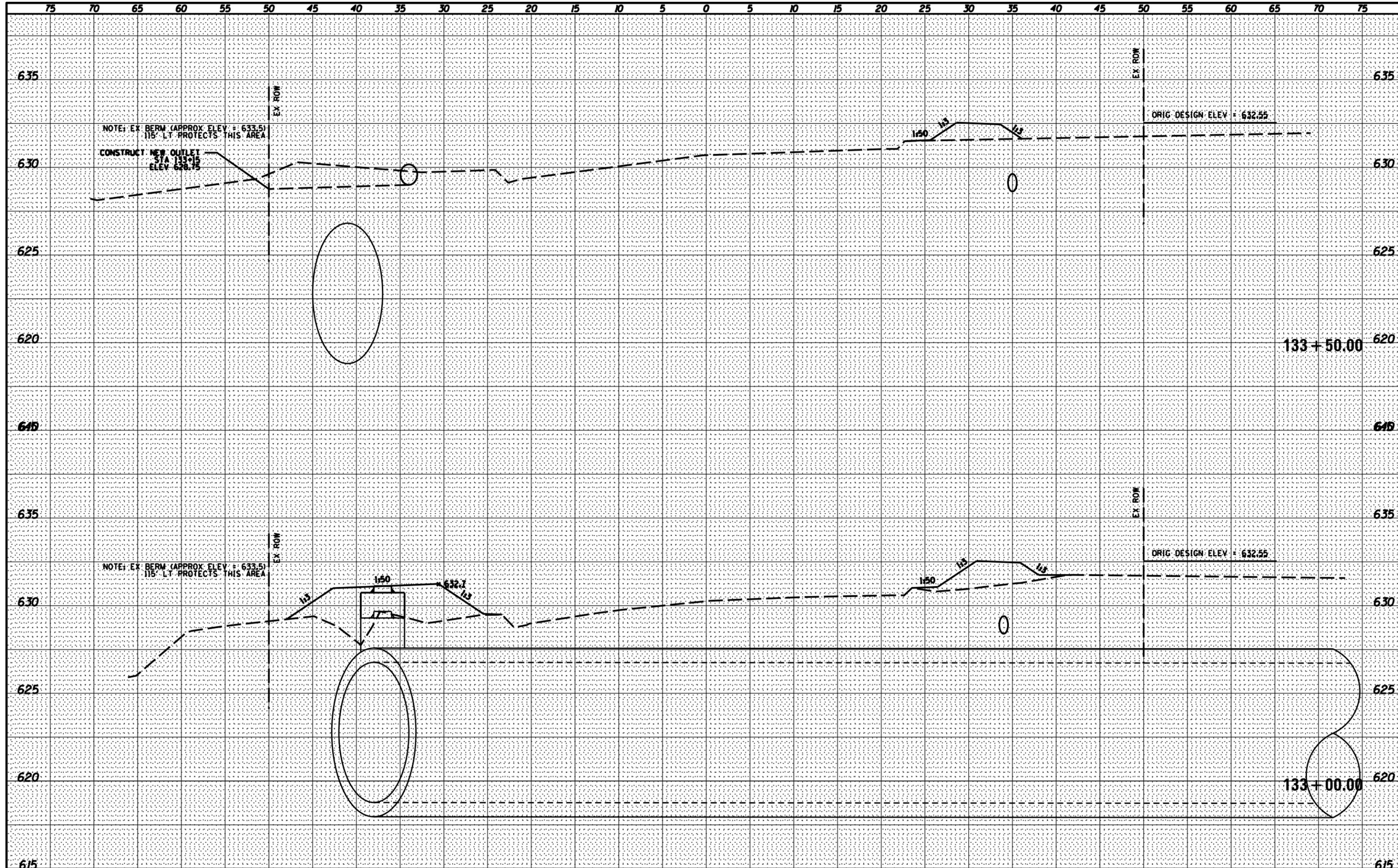
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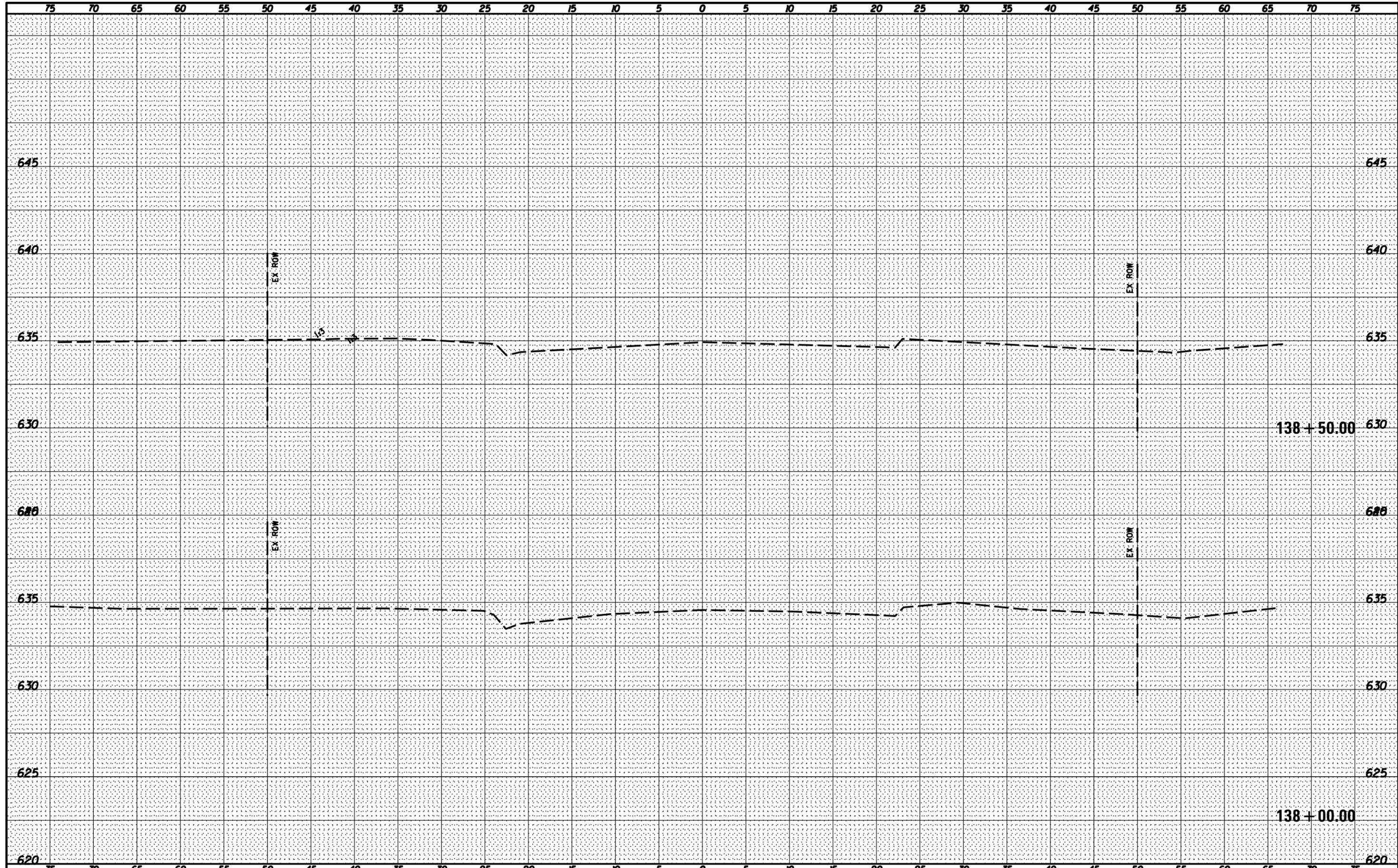
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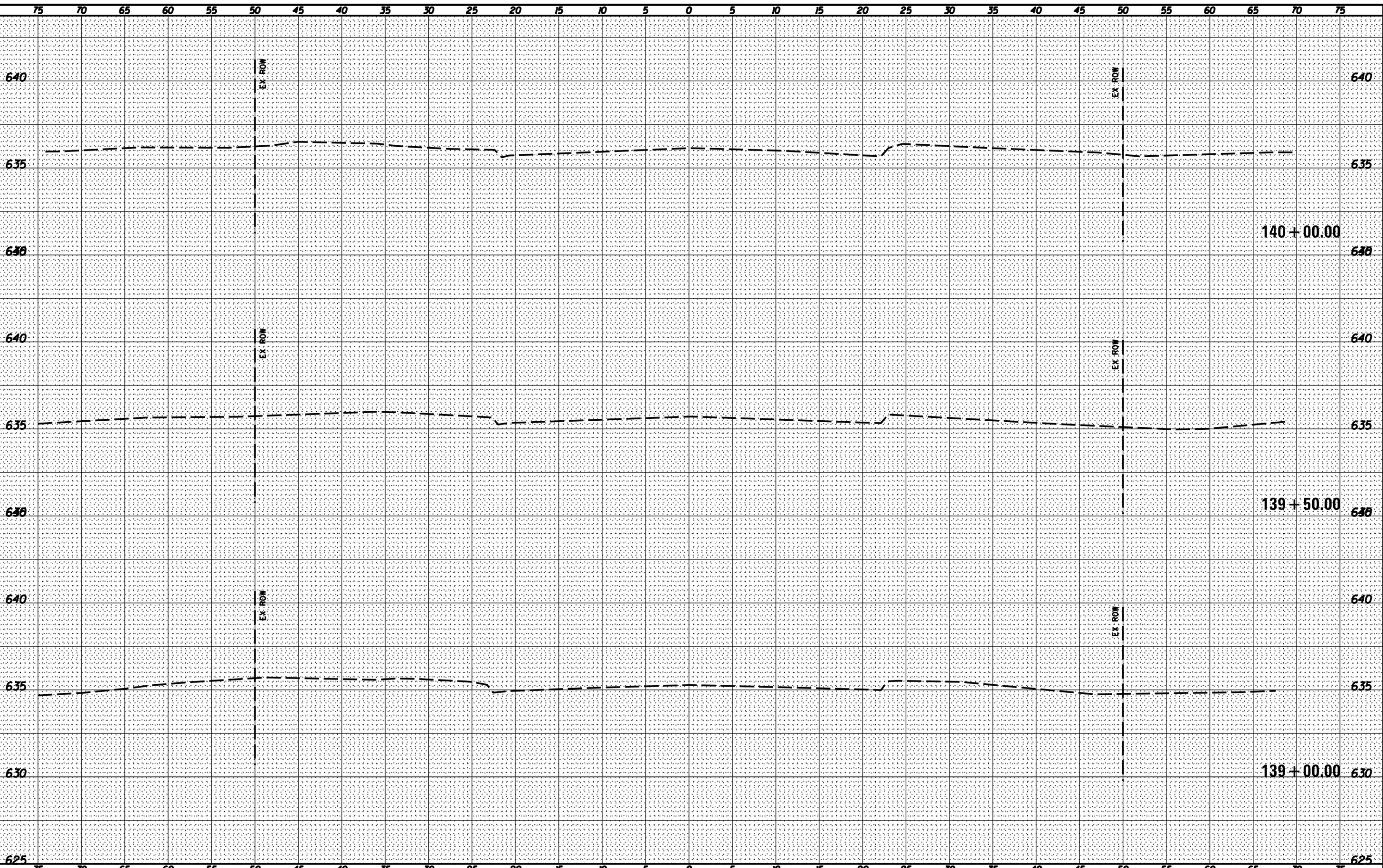
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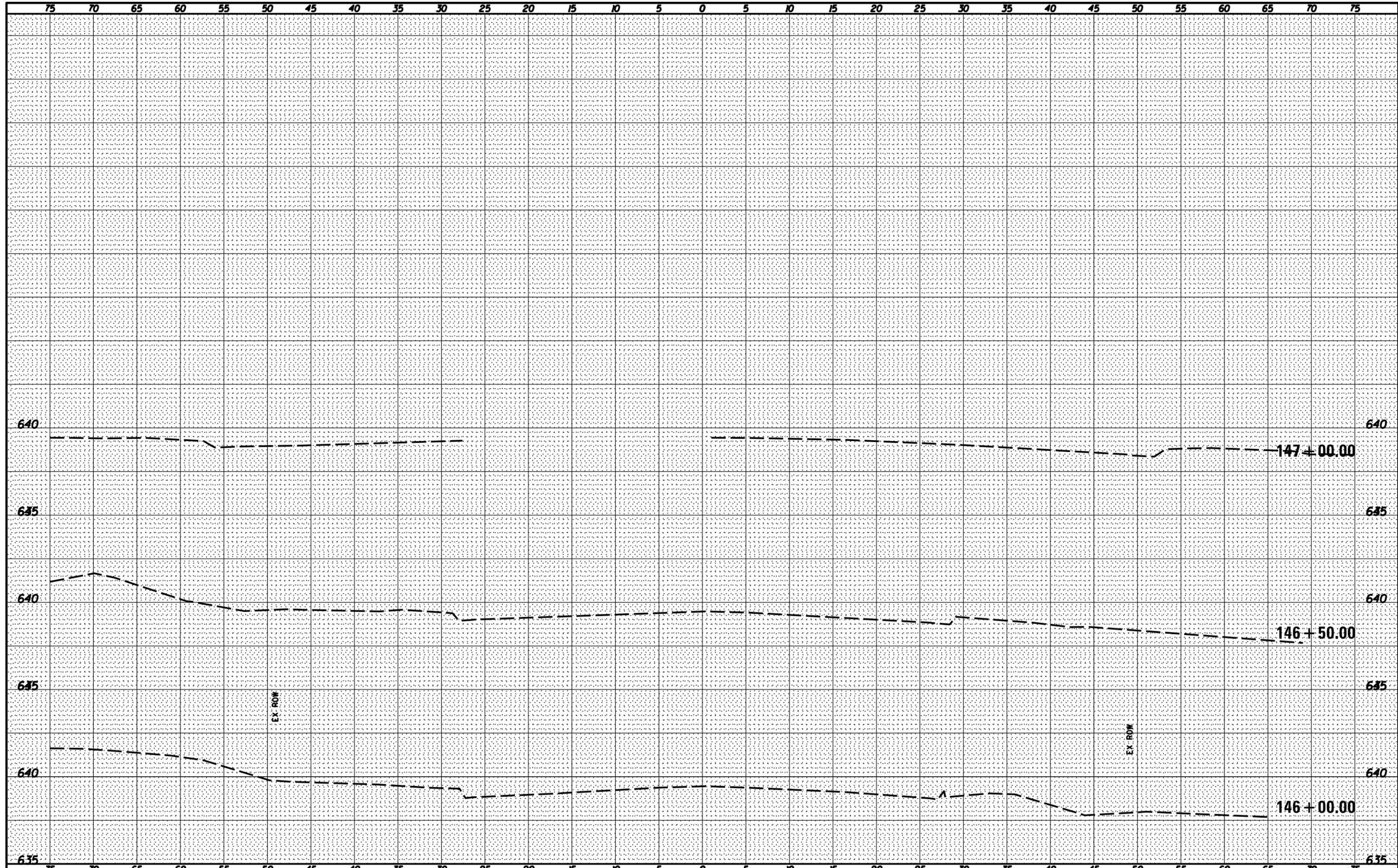


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**Section 4(f) *De Minimis* Documentation
Kloempken Prairie and Big Bend Lake
Forest Preserve District of Cook County**

Attachment E
Public Review and Comment



IDOT is seeking public comments on Section 4(f) impacts the IL Route 58 Drainage Improvements project will have on Kloempken Prairie and Big Bend Lake owned and operated by the Forest Preserve District of Cook County. Section 4(f) lands include publicly owned parks, recreational areas, wildlife and waterfowl refuges, or public and private historical sites. The project will impact Kloempken Prairie along the north side of IL 58 to regrade flood control berms. The project will also impact Big Bend Lake along the south side of IL 58 to regrade flood control berms and realign a pump station access drive. This is the first opportunity for the public to comment on the additional public land needed for this project. The Section 4(f) *de Minimis* documentation is available for viewing at the following locations during normal business hours.

DATE: November 4, 2015 to December 4, 2015
TIME: 9:00 AM to 3:00 PM, Monday thru Friday
PLACE: Illinois Department of Transportation
Bureau of Programming – 4th Floor
201 West Center Court
Schaumburg, IL 60196

OR

Forest Preserve District of Cook County
536 North Harlem Avenue
River Forest, IL 60305

Electronic copies are available on IDOT's website at <http://www.idot.illinois.gov/transportation-system/environment/index> under the Section 4(f) tab. Written comments can be submitted at the IDOT office, mailed to the IDOT office, or submitted electronically to <http://www.idot.illinois.gov/transportation-system/environment/index>. Comments must be received by December 4, 2015, to be considered part of the public record.

This documentation will be accessible to people with disabilities. Anyone needing special assistance should contact Griselda Monsivais at (847)705-4716. Persons planning to visit either site or view the documents who will need a sign language interpreter or other similar accommodations should notify the Department's TTY/TTD number (800) 526-0844/or 711; TTY users (Spanish) (800) 501-0864/or 711; and Telebraille (877) 526-6670 at least five (5) days prior to the visit.

All correspondence regarding this project should be sent to:

Illinois Department of Transportation
201 West Center Court
Schaumburg, IL 60196-1096
Bureau of Programming
Attn: Griselda Monsivais

**Section 4(f) *De Minimis* Documentation
Kloempken Prairie and Big Bend Lake
Forest Preserve District of Cook County**

Attachment F
Tree Survey

TREE SURVEY REPORT FOR GOLF ROAD

Prepared for:
Illinois Department of Transportation
Region 1
Schaumburg, Illinois

Prepared by:
Hampton, Lenzini, and Renwick, Inc.
Elgin, Illinois

December 2014
Updated February 2015

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Appendices

Appendix A – Tree Survey (10 Sheets)
Appendix B – Individual Tree Inventory
Appendix C – Table A and Table B

METHODOLOGY

The Illinois Department of Transportation (IDOT) Departmental Policies (D&E-26) were followed. IDOT D&E-26 requires trees, with a diameter of six (6) inches or greater at a point 4.5 feet above the highest ground level at the base of the tree, i.e., diameter breast height (DBH) as well as all trees of any size when intentionally planted for landscaping, environmental mitigation, or habitat preservation/enhancement, to be identified and measured. Tree locations are shown in Appendix A and individual tree inventories are provided in Appendix B.

In addition to right-of-way area, forest preserve property was also located within the project limits. Trees within the project area located within the Forest Preserve District of Cook County (FPDCC) property were also inventoried. All trees within the project area located in FPDCC property exhibiting a diameter of four (4) inches or greater at DBH were inventoried, as required by the FPDCC.

TREE EVALUATION

Individually Identified Trees

A total of 267 individual trees were identified during the investigation. Of the 267 trees identified, 239 were volunteer, 9 were landscaped, and 19 were dead. Of the 239 live volunteer trees, 180 were native, and 59 were invasive. The areas with volunteer trees exhibited some native quality. Over 50% of all the trees exhibited a health and/or structure rating of “poor”.

Tree Type

Table 1 presents the individual tree data by type. A total of 20 types of trees were identified to the species and genus level, others were found dead or in otherwise extremely poor condition. The most common tree types were Common Buckthorn (*Rhamnus cathartica*) – 20.6%, Green Ash (*Fraxinus pennsylvanica*) – 12.7%, American Elm (*Ulmus americana*) – 11.2%, Sugar Maple (*Acer saccharum*) – 10.1%, Box Elder (*Acer negundo*) – 6.7%, Black Cherry (*Prunus serotina*) – 6.0%, and Downy Hawthorne (*Crataegus mollis*) – 6.4%. There were 19 dead trees, which make up 7.0% of the tree inventory.

For the purposes of this report, trees whose root zones are within the project right-of-way, based on the engineering design at the time of the survey, are considered impacted.

Table 1 - Individual Tree Data by Type

Species (Common Name Scientific Name)	Overall		Impacted	
	Number	Percentage	Number	Percentage
American Elm <i>Ulmus americana</i>	30	11.2%	18	12.6%
American Basswood <i>Tilia americana</i>	8	3.0%	2	1.4%
Black Cherry <i>Prunus serotina</i>	16	6.0%	11	7.7%
Black Willow <i>Salix nigra</i>	5	1.9%	0	0.0%
Box Elder <i>Acer negundo</i>	18	6.7%	13	9.1%
*Common Buckthorn <i>Rhamnus cathartica</i>	55	20.6%	28	19.6%
Dead	19	7.1%	10	7.0%
Downy Hawthorne <i>Crataegus mollis</i>	17	6.4%	7	4.9%
Eastern Cottonwood <i>Populus deltoides</i>	5	1.9%	4	2.8%
Green Ash <i>Fraxinus pennsylvanica subintegerrima</i>	34	12.7%	17	11.9%
Hackberry <i>Celtis occidentalis</i>	8	3.0%	4	2.8%
Honey Locust <i>Gleditsia triacanthos</i>	9	3.4%	5	3.5%
Mockernut Hickory <i>Carya tomentosa</i>	1	0.4%	0	0.0%

Species (Common Name Scientific Name)	Overall		Impacted	
	Number	Percentage	Number	Percentage
*White Mulberry <i>Morus alba</i>	1	0.4%	0	0.0%
*Osage Orange <i>Maclura pomifera</i>	3	1.1%	3	2.1%
Red Oak <i>Quercus rubra</i>	1	0.4%	0	0.0%
Pignut Hickory <i>Carya glabra</i>	1	0.4%	1	0.7%
*Siberian Elm <i>Ulmus pumila</i>	4	1.5%	4	2.8%
Silver Maple <i>Acer saccharinum</i>	1	0.4%	0	0.0%
Slippery Elm <i>Ulmus rubra</i>	4	1.5%	3	2.1%
Sugar Maple <i>Acer saccharum</i>	27	10.1%	13	9.1%
Total	267	100%	143	100%

*Species not native to North America and listed as invasive in the United States Department of Agriculture (USDA) Weeds of the U.S. List; Native. Note: Landscaped species excluded from Native Classification.

Table 2 presents the individual tree data by health. Health refers to the overall condition of the tree, specifically the vigor and productivity of the tree. Signs of disease, insects, presence of fungus, dead wood, or holes on the main trunk, and leaf condition are all considered when evaluating the health of the tree. In addition, bark damage, cankers, and twig development are also used when evaluating the health of a tree.

Overall tree health percentages are 0.0% excellent, 4.5% good, 31.1% fair, 57.3% poor, and 7.1% dead. Ash trees inventoried for this study displayed varying degrees of symptoms of the emerald ash borer (EAB). Symptoms of emerald ash borer that were noted in the field include vertical fissures on the bark due to callous tissue formation underneath, evidence of serpentine larval feeding galleries in the phloem (just under the bark), and d-shaped holes in the bark or outermost remaining surface where the adult beetles emerge from the tree. Evidence of the emerald ash borer constituted a health rating of “Poor” in live trees.

TABLE 2 - INDIVIDUAL TREE DATA BY HEALTH

Health	Overall		Impacted	
	Total	Percent	Total	Percent
Excellent	0	0.0%	0	0.0%
Good	12	4.5%	9	6.3%
Fair	83	31.1%	41	28.7%
Poor	153	57.3%	83	58.0%
Dead	19	7.1%	10	7.0%
Total	267	100%	143	100%

Table 3 presents the individual tree data by structure. Structure refers to the branching patterns and normal shaping pattern of the tree. Missing or cut branches are considered when evaluating the structure of a tree. Overall tree structure percentages are 0.0% excellent, 1.9% good, 18.7% fair, 72.3% poor, and 7.1% dead.

TABLE 3 - INDIVIDUAL TREE DATA BY STRUCTURE

Structure	Overall		Impacted	
	Total	Percent	Total	Percent
Excellent	0	0.0%	0	0.0%
Good	5	1.9%	4	2.8%
Fair	50	18.7%	30	21.0%
Poor	193	72.3%	99	69.2%
Dead	19	7.1%	10	7.0%
Total	267	100%	143	100%

SUMMARY OF IMPACTS

It is anticipated that 143 of the 267 total inventoried trees will be impacted by the project. This represents 53.6% of the total trees inventoried. Of the 143 trees proposed to be impacted, 92 trees are located within the right-of-way area and 51 of the trees are located within FPDCC property.

MITIGATION REQUIREMENTS

IDOT Right-of-Way Areas

Tree replacement based on the D&E policy requires the replacement of trees within the project right-of-way to the extent practical. Where it is not practical to provide replacement plantings within the right-of-way, opportunities for plantings should be considered outside of the right-of-way or on other projects to achieve a long-term goal of providing at least as many replacement trees as the number removed. If bare root or balled and burlapped trees are used for replacement plantings, a minimum ratio of 1:1 is recommended for the number of trees planted to the number of trees intended to be established. If seedlings are used, a minimum ratio of 3:1 is recommended.

For trees removed from forest areas or from wooded riparian corridors, the intent of replacement plantings should be to provide comparable function replacement. Decisions on the location, nature, and extent of replacement plantings should be guided by the results of coordination and consultation with the regulatory and natural resource agencies pursuant to the National Environmental Protection Agency, Section 404 of the Clean Water Act, and any other applicable statutes, regulations, or agreements.

A total of 171 trees were inventoried within IDOT right-of-way areas, of which 92 are proposed to be impacted.

Forest Preserve District of Cook County Areas (FPDCC)

Trees located within FPDCC areas will be mitigated via a fee program set forth in the Tree Mitigation Plan as adopted by the Board of Forest Preserve District Commissioners on March 21, 2007. This fee schedule evaluates tree replacement fees based on measured DBH and coefficient of conservatism (C-value) of the species for each tree. Common Buckthorn (*Rhamnus cathartica*) over 4" DBH should be surveyed, but will be valued at \$0, since it is generally an undesirable species that the District is actively removing from their holdings. However, Buckthorn may be replaced 1:1 with approved shrubs should District staff determine that the buckthorn is providing a valuable landscape element.

As a part of the mitigation, all trees to be removed (excluding buckthorn and the one dead tree, as noted above) will be replaced at a 1:1 ratio with approved nursery grown stock. Trees to be planted will typically be 2" to 3" DBH, however, the species and sizes to be replanted will be at the District's discretion based on the conditions of the site. The trees may be a different species than the species of the trees being removed, or small caliper trees (such as seedlings, whips, or bare root stock) may be substituted. The District will provide the requesting entity with a list of the preferred species, quantities, sizes, and general planting locations for the replacement trees. The requesting entity will prepare a tree planting plan for review and approval by the District, which includes the total estimated installed cost of all replacement trees. Tree planting plans must be reviewed and approved by District staff before planting. This review is to insure that a reasonable cost is being used for the replacement trees. The District will attempt to do all tree

planting on the disturbed construction area or on an undisturbed area immediately adjacent to or contiguous with the project. However, if site conditions at the project site prohibit the planting of the desired trees, the trees may be planted at a nearby site, at another high priority District site, or on an acquisition site.

The cost of providing and planting replacement trees from paragraph 6, of the FPDCC Tree Mitigation Plant Report, will be credited to the requesting entity. The difference between the value of the trees to be removed or impacted and the amount credited for tree replacement (hereafter referred to as the net restoration balance) will be used for restoration activities on District property or to acquire property with restoration potential, at the discretion of the Forest Preserve District.

A total of 96 trees were inventoried within FPDCC areas, of which 51 trees are proposed to be impacted. Of the impacted trees within FPDCC property, 18 were Common Buckthorn (*Rhamnus cathartica*) and one was dead, these should not warrant replacement unless determined necessary by the FPDCC.

The fee schedule calculation tables was provided by the FPDCC on February 11, 2015. The tree survey data input was completed for the site to determine the total mitigation fee. Table A breaks down each species value by their coefficient of conservatism (C value) and assigns them a corresponding species multiplier (M) used to determine the cost of each species. Table B determines the mitigation fee. These tables are included in Appendix C. The total cost for the 32 mitigated trees is \$44,271.58, as stated above this cost will be subtracted from the total cost of the net restoration.

TABLE 4 –IMPACTED TREE SUMMARY

	Total Impacted Live Trees in ROW Area (>6")	Total Impacted Dead Trees within ROW Area	Total Impacted Live Trees in FP Area (>4")	Total Impacted Dead Trees within FP Area	Total Impacted Buckthorn (<i>R. cathartica</i>) within FP Area*	Total Impacted Trees
Caliper Inches	952"	129"	342"	7"	85"	1430"
Individual Trees	83	9	50	1	18	143

*These values are included in the total calculations for impacted live trees in FP trees.

CONCLUSION

Trees were surveyed individually along Illinois Route 58/Golf Road (From College Drive to East River Road, Des Plaines, Cook County, Illinois). It is anticipated that a total of 143 of the 267 total trees surveyed will be impacted by the project. Mitigation is required for 92 trees located within the IDOT right-of-way areas via replacement in accordance with D & E policy. Of 51 total trees impacted, which are located within Forest Preserve District of Cook County areas, 18 are invasive and one is dead, therefore 19 do not need to be mitigated. The remaining 32 shall be mitigated through a fee and replacement program as set forth in the FPDCC Tree Mitigation Plan as adopted by the Board of Forest Preserve District Commissioners on March 21, 2007, the cost of the mitigation is \$44,271.58. The remaining impacted trees within the forest preserve areas consist of Common Buckthorn, which is actively managed and removed within these areas. Replacement for these trees will not be required unless deemed necessary by the FPDCC.

REFERENCES

Illinois Department of Transportation (IDOT). *Design and Environmental Department Policies Special Environmental Analyses (D&E – 26)*, 2012.

Forest Preserve District of Cook County. *Tree Mitigation Plan*. Board approved on March 21, 2007.

Kershner, et al., *Field Guide to Trees of North America*. National Wildlife Federation, Chanticleer Press, 2008.

APPENDIX A

Tree Survey



Exhibit 1A
Tree Survey
IL Rte 58 / Golf Road
Scale: 1" = 20'
Hampton, Lenzini and Renwick, Inc.
Civil & Structural Engineers, Land Surveyors, Environmental Services
HLR ELGIN · SPRINGFIELD · ROMEOVILLE
www.hltrengineering.com



150 # 151
152

133 # 137 # 138 # 139 # 142 # 143 # 144 # 145 # 146 # 147 # 148
134 # 135 # 136 # 140 # 141
131 # 132

110 # 109 # 108 # 107 # 106 # 105 # 103

102 # 101 # 99 # 98

Exhibit 1B
Tree Survey
IL Rte 58 / Golf Road
Scale: 1" = 20'
Hampton, Lenzini and Renwick, Inc.
Civil & Structural Engineers, Land Surveyors, Environmental Services
HLR ELGIN · SPRINGFIELD · ROMEOVILLE
www.hltrengineering.com



115+00



Exhibit 1C
Tree Survey
IL Rte 58 / Golf Road
Scale: 1" = 20'
Hampton, Lenzini and Renwick, Inc.
Civil & Structural Engineers, Land Surveyors, Environmental Services
HLR ELGIN · SPRINGFIELD · ROMEOVILLE
www.hltrengineering.com



#153



120+00

80 # 79 # 77 # 78 # 73 # 74 # 75 # 72 # 71 # 70 # 67 # 69 # 68 # 65 # 66 # 63 # 64 # 62 # 61 # 60 # 59 # 58 # 1059

Exhibit 1D
Tree Survey
IL Rte 58 / Golf Road
 Scale: 1" = 20'
 Hampton, Lenzini and Renwick, Inc.
 Civil & Structural Engineers, Land Surveyors, Environmental Services
HLR ELGIN · SPRINGFIELD · ROMEOVILLE
 www.hltrengineering.com



57 — #56 — #55

#54

#53

#52

#1058

Exhibit 1E
Tree Survey
IL Rte 58 / Golf Road
 Scale: 1" = 20'
 Hampton, Lenzini and Renwick, Inc.
Civil & Structural Engineers, Land Surveyors, Environmental Services
HLR ELGIN · SPRINGFIELD · ROMEOVILLE
 www.hltrengineering.com



Exhibit 1G
Tree Survey
IL Rte 58 / Golf Road
 Scale: 1" = 20'
 Hampton, Lenzini and Renwick, Inc.
 Civil & Structural Engineers, Land Surveyors, Environmental Services
HLR ELGIN · SPRINGFIELD · ROMEOVILLE
 www.hltrengineering.com



Exhibit 1H
Tree Survey
IL Rte 58 / Golf Road
Scale: 1" = 20'
Hampton, Lenzini and Renwick, Inc.
Civil & Structural Engineers, Land Surveyors, Environmental Services
HLR ELGIN · SPRINGFIELD · ROMEOVILLE
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47
48

135+00

#3088

#3091

#3093

#3099

#3100

#3204

#3209

#3213
#3215

Exhibit 11
Tree Survey
IL Rte 58 / Golf Road
Scale: 1" = 20'
Hampton, Lenzini and Renwick, Inc.
Civil & Structural Engineers, Land Surveyors, Environmental Services
HLR ELGIN · SPRINGFIELD · ROMEOVILLE
www.hltrengineering.com



140+00

#2983

#3063

#3084

Exhibit 1A
Tree Survey
IL Rte 58 / Golf Road
 Scale: 1" = 20'

HLR Hampton, Lenzini and Renwick, Inc.
 Civil & Structural Engineers, Land Surveyors, Environmental Services
 ELGIN · SPRINGFIELD · ROMEOVILLE
 www.hltreengineering.com

APPENDIX B

Individual Tree Survey

PROJECT: Golf Road

TREE INVENTORY

TAG ID#	STA	OFFSET	SIZE (DBH)*	TYPE	H**	S**	O**	COMMENTS	IMPACT ***
0			10	Crataegus mollis	P	F	V	Right of Way	Yes
1			6	Ulmus americana	F	P	V	Right of Way	Yes
2			7	Ulmus pulmina	P	P	V	Right of Way	Yes
3			14	Dead	D	D	V	Right of Way	Yes
4			MS 6	Rhamnus cathartica	P	P	V	Right of Way	Yes
5			7	Prunus serotina	P	P	V	Right of Way	Yes
6			MS 15	Prunus serotina	P	P	V	Right of Way	Yes
7			MS 6	Ulmus pulmina	P	P	V	Right of Way	Yes
8			6	Rhamnus cathartica	P	P	V	Right of Way	Yes
9			MS 12	Populus deltoides	F	P	V	Right of Way	Yes
10			18	Populus deltoides	F	F	V	Right of Way	Yes
11			6	Ulmus americana	G	G	V	Right of Way	No
12			11	Crataegus mollis	F	P	V	Right of Way	No
13			25	Gleditsia triacanthos	G	F	V	Right of Way	Yes
14			7	Dead	D	D	V	Right of Way	Yes
15			7	Rhamnus cathartica	P	F	V	Right of Way	Yes
16			6	Rhamnus cathartica	P	P	V	Right of Way	Yes
17			MS 6	Rhamnus cathartica	P	P	V	Right of Way	Yes
18			6	Rhamnus cathartica	P	P	V	Right of Way	Yes
19			12	Celtis occidentalis	G	G	V	Right of Way	Yes
20			11	Celtis occidentalis	G	F	V	Right of Way	Yes
21			11	Prunus serotina	F	F	V	Right of Way	Yes
22			9	Maclura pomifera	P	P	V	Right of Way	Yes
23			12	Maclura pomifera	P	P	V	Right of Way	Yes
24			7.5	Ulmus americana	F	F	V	Right of Way	Yes
25			10	Prunus serotina	G	F	V	Right of Way	Yes
26			14	Maclura pomifera	F	P	V	Right of Way	Yes
27			12	Prunus serotina	F	F	V	Right of Way	Yes
28			10	Celtis occidentalis	F	P	V	Right of Way	No
29			13.5	Prunus serotina	F	F	V	Right of Way	No
30			9	Dead	D	D	V	Right of Way	No

31			7	Prunus serotina	F	F	V	Right of Way	No
32			6	Dead	D	D	V	Right of Way	No
33		MS 13		Tilia americana	P	P	V	Right of Way	Yes
34			10.5	Dead	D	D	V	Right of Way	No
35			8	Rhamnus cathartica	P	P	V	Right of Way	No
36			11	Carya tomentosa	F	P	V	Right of Way	No
37			6	Prunus serotina	P	P	V	Right of Way	No
38			6	Ulmus americana	P	F	V	Right of Way	Yes
39			13	Salix nigra	F	P	V	Right of Way	No
40			7.5	Dead	D	D	V	Right of Way	No
41			9	Salix nigra	P	P	V	Right of Way	No
42			6	Ulmus americana	F	P	V	Right of Way	No
43			11	Salix nigra	P	P	V	Right of Way	No
44			8.5	Salix nigra	P	P	V	Right of Way	No
45			8	Salix nigra	P	P	V	Right of Way	No
46			16	Populus deltoides	P	P	V	Right of Way	Yes
47			9	Populus deltoides	P	P	V	Right of Way	Yes
48			10	Ulmus americana	F	P	V	Right of Way	Yes
49			30	Fraxinus pennsylvanica	F	F	V	Right of Way	No
50			6	Rhamnus cathartica	P	P	V	Right of Way	Yes
51			8	Rhamnus cathartica	P	P	V	Right of Way	Yes
52			8	Acer saccharum	F	P	V	Right of Way	Yes
53		MS 18		Acer saccharum	F	P	V	Right of Way	Yes
54			26	Dead	D	D	V	Right of Way	Yes
55			9	Ulmus americana	P	P	V	Right of Way	Yes
56			8	Ulmus americana	F	F	V	Right of Way	Yes
57			17	Ulmus americana	F	F	V	Right of Way	Yes
58			11	Ulmus americana	F	P	V	Right of Way	Yes
59			9	Fraxinus pennsylvanica	P	F	V	Right of Way	Yes
60			13	Fraxinus pennsylvanica	P	P	V	Right of Way	Yes
61			9	Fraxinus pennsylvanica	P	P	V	Right of Way	Yes
62			9	Fraxinus pennsylvanica	P	P	V	Right of Way	Yes
63			26	Ulmus americana	F	P	V	Right of Way	Yes
64		MS 16		Acer saccharum	F	P	V	Right of Way	Yes

65		6	Rhamnus cathartica	P	P	V	Right of Way	Yes
66		6	Rhamnus cathartica	P	P	V	Right of Way	No
67		7	Fraxinus pennsylvanica	P	P	V	Right of Way	Yes
68		6	Ulmus americana	P	P	V	Right of Way	Yes
69		6.5	Rhamnus cathartica	P	P	V	Right of Way	Yes
70		7	Crataegus mollis	F	P	V	Right of Way	No
71		9.5	Dead	D	D	V	Right of Way	Yes
72		6.5	Ulmus americana	F	P	V	Right of Way	Yes
73		10.5	Fraxinus pennsylvanica	P	P	V	Right of Way	Yes
74		6	Fraxinus pennsylvanica	P	P	V	Right of Way	Yes
75		6	Dead	D	D	V	Right of Way	No
76		7	Rhamnus cathartica	P	P	V	Right of Way	No
77		7	Ulmus americana	P	P	V	Right of Way	Yes
78		7.5	Fraxinus pennsylvanica	P	P	V	Right of Way	Yes
79		9	Ulmus americana	P	P	V	Right of Way	Yes
80		7	Fraxinus pennsylvanica	P	P	V	Right of Way	Yes
81		6	Ulmus americana	F	P	V	Right of Way	Yes
82		11	Ulmus americana	F	P	V	Right of Way	No
83		15	Acer negundo	F	P	V	Right of Way	No
84		8	Ulmus americana	P	P	V	Right of Way	Yes
85		20	Acer saccharum	P	P	V	Right of Way	Yes
86		25	Acer saccharum	G	F	V	Right of Way	Yes
87		12.5	Ulmus americana	F	P	V	Right of Way	No
88		6.5	Ulmus americana	P	F	V	Right of Way	No
89		6	Fraxinus pennsylvanica	P	P	V	Right of Way	Yes
90		11	Dead	D	D	V	Right of Way	Yes
91		6	Acer saccharum	F	P	V	Right of Way	Yes
92		6	Acer saccharum	F	F	V	Right of Way	No
93		11.5	Dead	D	D	V	Right of Way	Yes
94		13	Dead	D	D	V	Right of Way	No
95		21	Dead	D	D	V	Right of Way	Yes
96		10	Fraxinus pennsylvanica	P	P	V	Right of Way	Yes
97		16	Dead	D	D	V	Right of Way	Yes
98		7	Acer saccharum	F	P	V	Right of Way	No

99		9	Ulmus americana	F	P	V	Right of Way	No
101		15	Fraxinus pennsylvanica	F	P	V	Right of Way	No
102		11	Acer negundo	P	P	V	Right of Way	No
103		24	Acer saccharum	F	F	V	Right of Way	No
104		7	Acer saccharum	F	P	V	Right of Way	Yes
105		17	Ulmus americana	F	F	V	Right of Way	Yes
106		20	Acer saccharum	F	F	V	Right of Way	Yes
107		15	Acer saccharum	F	F	V	Right of Way	Yes
108		10	Acer saccharum	F	P	V	Right of Way	Yes
109		14	Ulmus americana	P	P	V	Right of Way	No
110		7	Acer negundo	P	P	V	Right of Way	No
111		13	Acer saccharum	P	P	V	Right of Way	No
112		17	Acer negundo	F	P	V	Right of Way	No
113		17.5	Acer saccharinum	F	F	V	Right of Way	No
114		11	Ulmus americana	F	P	V	Right of Way	No
115		9	Ulmus americana	P	P	V	Right of Way	No
116		6.5	Morus alba	P	P	V	Right of Way	No
117		6.5	Ulmus americana	P	P	V	Right of Way	No
118		9	Fraxinus pennsylvanica	P	P	V	Right of Way	No
119		23	Populus deltoides	P	F	V	Right of Way	No
120		13	Fraxinus pennsylvanica	P	P	V	Right of Way	No
121		12	Fraxinus pennsylvanica	P	P	V	Right of Way	No
122		13	Acer negundo	P	P	V	Right of Way	No
123		9	Celtis occidentalis	F	P	V	Right of Way	No
124		24	Acer sachharum	F	F	V	Right of Way	No
125		19	Acer sachharum	F	P	V	Right of Way	No
126		16	Prunus serotina	P	P	V	Right of Way	No
127		27	Celtis occidentalis	F	P	V	Right of Way	No
128		11	Ulmus americana	F	F	V	Right of Way	No
129		13	Celtis occidentalis	F	P	V	Right of Way	No
130		12	Acer negundo	P	P	V	Right of Way	Yes
131		11	Ulmus americana	P	P	V	Right of Way	Yes
132		10	Ulmus americana	P	P	V	Right of Way	Yes
133		14	Acer saccharum	F	P	V	Right of Way	No

134		MS 14	Tilia americana	F	P	V	Right of Way	No
135		14	Tilia americana	F	P	V	Right of Way	No
136		14	Tilia americana	F	P	V	Right of Way	No
137		11	Tilia americana	F	P	V	Right of Way	No
138		MS 7	Tilia americana	F	P	V	Right of Way	No
139		7	Acer saccharum	F	F	V	Right of Way	No
140		10	Celtis occidentalis	F	P	V	Right of Way	Yes
141		13	Prunus serotina	F	P	V	Right of Way	No
142		29	Quercus rubra	F	F	V	Right of Way	No
143		9	Ulmus americana	F	P	V	Right of Way	No
144		11	Acer saccharum	F	P	V	Right of Way	No
145		14	Acer sachharum	F	P	V	Right of Way	No
146		14	Tilia americana	F	P	V	Right of Way	No
147		14	Ulmus rubra	F	P	V	Right of Way	Yes
148		6	Acer sachharum	P	P	V	Right of Way	No
149		34	Acer sachharum	P	P	V	Right of Way	Yes
150		MS 10	Ulmus rubra	P	P	V	Right of Way	No
151		13	Ulmus rubra	P	P	V	Right of Way	Yes
152		23	Ulmus rubra	P	F	V	Right of Way	Yes
153		12	Dead	D	D	L	Right of Way	Yes
154		12	Gleditsia triacanthos	P	P	V	Right of Way	No
155		11	Gleditsia triacanthos	P	P	V	Right of Way	No
156		8	Fraxinus pennsylvanica	P	P	V	Right of Way	No
157		10	Fraxinus pennsylvanica	P	P	V	Right of Way	No
158		8	Fraxinus pennsylvanica	P	P	V	Right of Way	No
1000		MS 4	Rhamnus cathartica	P	P	V	Forest preserve	Yes
1001		5	Rhamnus cathartica	P	P	V	Forest preserve	Yes
1002		MS 5	Rhamnus cathartica	P	P	V	Forest preserve	Yes
1003		5	Fraxinus pennsylvanica	P	F	V	Forest preserve	No
1004		MS 4	Rhamnus cathartica	P	P	V	Forest preserve	No
1005		MS 5	Rhamnus cathartica	P	P	V	Forest preserve	Yes
1006		5	Ramnus cathartica	P	P	V	Forest preserve	No
1007		4	Rhamnus cathartica	P	P	V	Forest preserve	No
1008		MS 4	Rhamnus cathartica	P	P	V	Forest preserve	No

1009			MS 4	Ramnus cathartica	P	P	V	Forest preserve	No
1010			MS 4	Rhamnus cathartica	P	P	V	Forest preserve	No
1011			MS 4	Rhamnus cathartica	P	P	V	Forest preserve	No
1012			MS 5	Rhamnus cathartica	P	F	V	Forest preserve	No
1013			4	Fraxinus pennsylvanica	P	F	V	Forest preserve	No
1014			7	Rhamnus cathartica	P	P	V	Forest preserve	No
1015			MS 5	Rhamnus cathartica	P	P	V	Forest preserve	No
1016			MS 4	Rhamnus cathartica	P	P	V	Forest preserve	No
1017			MS 4	Rhamnus cathartica	P	P	V	Forest preserve	Yes
1018			MS 4	Rhamnus cathartica	P	P	V	Forest preserve	Yes
1019			MS 5	Rhamnus cathartica	P	P	V	Forest preserve	Yes
1020			7	Rhamnus cathartica	G	F	V	Forest preserve	No
1021			MS 5	Rhamnus cathartica	P	P	V	Forest preserve	Yes
1022			4	Rhamnus cathartica	P	P	V	Forest preserve	No
1023			MS 5	Rhamnus cathartica	P	P	V	Forest preserve	No
1024			4	Rhamnus cathartica	p	p	v	Forest preserve	No
1025			MS 5	Fraxinus pennsylvanica	P	P	V	Forest preserve	No
1026			4	Rhamnus cathartica	F	F	V	Forest preserve	No
1027			4	Rhamnus cathartica	F	F	V	Forest preserve	Yes
1028			MS 6	Rhamnus cathartica	P	P	V	Forest preserve	No
1029			MS 6	Rhamnus cathartica	P	P	V	Forest preserve	No
1030			MS 4	Rhamnus cathartica	P	P	V	Forest preserve	No
1031			7	Fraxinus pennsylvanica	P	P	V	Forest preserve	No
1032			MS 4	Rhamnus cathartica	P	P	V	Forest preserve	No
1033			4	Rhamnus cathartica	P	P	V	Forest preserve	No
1034			5	Rhamnus cathartica	P	P	V	Forest preserve	Yes
1035			MS 4	Rhamnus cathartica	P	P	V	Forest preserve	No
1036			4	Rhamnus cathartica	F	F	V	Forest preserve	Yes
1037			MS 4	Rhamnus cathartica	P	P	V	Forest preserve	Yes
1038			MS 4	Rhamnus cathartica	P	P	V	Forest preserve	Yes
1039			4	Rhamnus cathartica	P	P	V	Forest preserve	No
1040			4	Rhamnus cathartica	P	P	V	Forest preserve	No
1041			4	Acer negundo	P	P	V	Forest preserve	Yes
1042			MS 8	Acer negundo	F	P	V	Forest preserve	Yes

1043			5	Acer negundo	F	P	V	Forest preserve	Yes
1044		MS 5		Acer negundo	P	P	V	Forest preserve	Yes
1045			5	Acer negundo	P	P	V	Forest preserve	Yes
1046			4	Acer negundo	P	P	V	Forest preserve	Yes
1047			4	Acer negundo	F	P	V	Forest preserve	Yes
1048			5	Acer negundo	P	P	V	Forest preserve	Yes
1049			6	Celtis occidentalis	E	G	V	Forest preserve	Yes
1050		MS 5		Rhamnus cathartica	F	F	V	Forest Preserve	Yes
1051			4	Fraxinus pennsylvanica	F	F	V	Forest preserve	Yes
1052		MS 6		Rhamnus cathartica	P	P	V	Forest preserve	Yes
1053			5	Rhamnus cathartica	P	P	V	Forest preserve	Yes
1054			7	Dead	D	D	V	Forest preserve	Yes
1055			4.5	Rhamnus cathartica	P	F	V	Forest preserve	Yes
1056			5.5	Rhamnus cathartica	P	P	V	Forest preserve	Yes
1057			10	Prunus serotina	F	G	V	Forest preserve	Yes
1058			12	Prunus serotina	P	P	V	Forest preserve	Yes
1059			6.5	Carya Glabra	F	F	V	Forest preserve	Yes
1059			5	Crataegus mollis	P	P	L	Forest preserve	Yes
2983			24	Acer saccharum	P	F	L	Right of Way	No
3063			23	Acer saccharum	P	P	L	Right of Way	No
3084			25	Acer saccharum	P	P	L	Right of Way	No
3088			18	Gleditsia triacanthos	G	F	L	Right of Way	No
3091			20	Gleditsia triacanthos	G	F	L	Right of Way	Yes
3093			12	Gleditsia triacanthos	F	P	V	Forest preserve	No
3099			20	Gleditsia triacanthos	G	G	L	Forest preserve	Yes
3100			12	Gleditsia triacanthos	G	F	L	Forest preserve	Yes
3204			15	Gleditsia triacanthos	F	P	L	Forest preserve	Yes
3209			25	Acer saccharum	G	P	V	Forest preserve	Yes
3213			7	Crataegus mollis	P	P	V	Forest preserve	No
3215			7	Crataegus mollis	P	P	V	Forest preserve	Yes
3221		MS 7		Crataegus mollis	B	P	V	Forest preserve	No
3222		MS 7		Ulmus pulmina	P	P	V	Forest preserve	Yes
3223		MS 8		Ulmus pulmina	P	P	V	Forest preserve	Yes
3312			9	Acer negundo	P	F	V	Forest preserve	Yes

3313			8	Acer negundo	P	P	V	Forest preserve	Yes
3314			11	Tilia americana	F	F	V	Forest preserve	Yes
3315			15	Prunus serotina	F	F	V	Forest preserve	Yes
3701			5	Fraxinus pennsylvanica	P	P	V	Forest preserve	Yes
3702			13	Prunus serotina	P	P	V	Right of Way	Yes
3703			5	Crataegus mollis	P	P	V	Forest preserve	Yes
3704			4	Crataegus mollis	P	P	V	Forest preserve	Yes
3705			6	Crataegus mollis	P	P	V	Forest preserve	Yes
3706		MS 7		Crataegus mollis	P	P	V	Forest preserve	Yes
3708			9	Fraxinus pennsylvanica	P	P	V	Forest preserve	No
3711			10	Dead	D	D	V	Forest preserve	No
3712			12	Fraxinus pennsylvanica	P	F	V	Forest preserve	No
3714		MS 11		Dead	D	D	V	Forest preserve	No
3715			13	Prunus serotina	P	P	V	Right of Way	Yes
3716			13	Prunus serotina	P	P	V	Right of Way	Yes
3717			11	Fraxinus pennsylvanica	P	F	V	Forest preserve	No
3718			10	Dead	D	D	V	Forest preserve	No
3719			8	Crataegus mollis	P	P	V	Forest preserve	No
3720		MS 7		Crataegus mollis	P	P	V	Forest preserve	No
3721			6	Crataegus mollis	P	P	V	Forest preserve	No
3722			7	Fraxinus pennsylvanica	P	P	V	Forest preserve	No
3723			6	Crataegus mollis	P	P	V	Forest preserve	No
3724			13	Fraxinus pennsylvanica	P	P	V	Forest preserve	No
3725		MS 6		Crataegus mollis	P	P	V	Forest preserve	No
3726			9	Fraxinus pennsylvanica	P	P	V	Forest preserve	No
3727			17	Fraxinus pennsylvanica	P	P	V	Right of Way	Yes
3728			7	Fraxinus pennsylvanica	P	P	V	Right of Way	Yes
3729			13	Acer saccharum	F	P	V	Right of Way	Yes
3730		MS 9		Crataegus mollis	P	P	V	Right of Way	Yes
3731			26	Fraxinus pennsylvanica	P	P	V	Right of Way	Yes
3734			5	Acer negundo	F	P	V	Forest preserve	Yes
3735			6	Acer negundo	F	P	V	Forest preserve	Yes

Key: *DBH= Diameter at breast height, in inches **Rate; Health (H), Structure (S): E=Excellent, G=Good, F=Fair, P=Poor; Origin (O) either Landscape or Volunteer

*** Estimated impacts based on phase 1 plans

APPENDIX C

Tables A and B

Table A: Tally Sheet for Inventoried Trees

Coefficient of Conservatism (C value) and Corresponding Species Multiplier (M)
for Calculating Tree Values

(Based on "Plants of the Chicago Region, by F. Swink and G. Wilhelm, 4th Edition, 1994)

Genus	Species	"M" for Calculating Tree Value C of 5 or greater M = 1 C of 2 to 4 M = .75 C of 0 to +1 M = .5 No C Value (non-native) m = .2	Trees listed by diameter
Acer	ginnala	0.2	
	negundo	0.5	4, 8, 5, 5, 5, 4, 4, 5, 9, 8, 5, 6
	nigrum	1	
	platanoides	0.2	
	pseudoplatanus	0.2	
	rubrum	1	
	saccharinum saccharum	.5 .75	25
Aesculus	glabara	.75	
	hippocastanum	.5	
Ailanthus	altissima	0.2	
Alnus	glutinosa	0.2	
	rugosa	1	
	serrulata	1	
Amelanchier	arborea	1	
	canadensis	1	
	humilis	1	
	interior	1	
	laevis	1	
	sanguinea	1	
Betula	alleghaniensis	1	
	nigra	1	
	papyrifera	1	
	pendula	0.2	
	populifolia	1	
	pumila	1	
Carpinus	caroliniana virginiana	1	
Carya	cordiformis	1	
	glabra	1	7
	laciniosa	1	
	ovalis	1	
	ovata	1	
	tomentosa	1	
Catalpa	speciosa	0.2	
Celtis	occidentalis	.75	6
	tenuifolia	1	

Genus	Species	"M" for Calculating Tree Value C of 5 or greater M = 1 C of 2 to 4 M = .75 C of 0 to +1 M = .5 No C Value (non-native) m = .2	Trees listed by diameter
Cercis	canadensis	1	
Cornus	alternifolia	1	
	canadensis	1	
	drummondii	.75	
	florida	1	
	obliqua	1	
	racemosa	.5	
	rugosa	1	
	stolonifer	1	
Corylus	americana	1	
	cornuta	1	
Crataegus	calpodendron	1	
	chrysoarpa	1	
	coccinea	.75	
	crus-galli	.75	
	flabellata	1	
	intricata	1	
	mollis	.75	5, 7, 5, 4, 6, 7
	monogyna	0.2	
	phaenopyrum	0.2	
	pruinosa	1	
	punctata	.75	
succulenta	1		
Elaeagnus	angustifolia	0.2	
	umbellata	0.2	
Fagus	grandifolia	1	
Fraxinus	americana	1	
	americana biltmoreana	1	
	nigra	1	
	pennsylvanica	1	
	pennsylvanica subintergerrima	.5	4, 5
	quadrangulata	1	
	tomentosa	1	
Gleditsia	triacanthos	.75	20, 12, 15
Gymnocladus	dioica	1	
Hamamelis	virginiana	1	
Juglans	cinera	1	
	nigra	1	
Juniperus	communis	1	
	horizontalis	1	
	virginiana creba	.75	

Table A Tally Sheet March 2007

Genus	Species	"M" for Calculating Tree Value C of 5 or greater M = 1 C of 2 to 4 M = .75 C of 0 to +1 M = .5 No C Value (non-native) m = .2	Trees listed by diameter
Liquidambar	styraciflua	0.2	
Liriodendron	tulipifera	1	
Malus	baccata	0.2	
	coronaria	.75	
	ioensis	.75	
	prunifolia	0.2	
	pumila	0.2	
	sieboldii	0.2	
Morus	alba	0.2	
	rubra	1	
Nyssa	sylvatica	1	
Picea	mariana	0.2	
Pinus	banksiana	1	
	nigra	0.2	
	pungens	0.2	
	resinosa	1	
	rigida	0.2	
	strobus	1	
	sylvestris	0.2	
	virginiana	0.2	
Platanus	occidentalis	1	
Populus	alba	0.2	
	balsamifera	1	
	canescens	0.2	
	deltoides	.75	
	grandidentata	1	
	heterophylla	1	
	nigra italica	0.2	
	x smithii	1	
	tremuloides	.75	
Prunus	americana	1	
	angustifolia	0.2	
	avium	0.2	
	cerasus	0.2	
	domestica	0.2	
	hortulana	0.2	
	mahaleb	0.2	
	nigra	1	
	padus	0.2	
	pensylvanica	1	

Table A Tally Sheet March 2007

Genus	Species	"M" for Calculating Tree Value C of 5 or greater M = 1 C of 2 to 4 M = .75 C of 0 to +1 M = .5 No C Value (non-native) m = .2	Trees listed by diameter
Prunus	persica	0.2	
	pumila	1	
	serotina	.5	10, 12, 15
	tomentosa	0.2	
	virginiana	.75	
Pyrus	calleryana	0.2	
	communis	0.2	
Quercus	alba	1	
	x bebbiana	1	
	bicolor	1	
	coccinea	.75	
	x hawkinsiae	.75	
	inbricaria	1	
	macrocarpa	1	
	muhlenbergii	1	
	x palaeolithicola	.75	
	palustris	1	
	rubra	1	
	velutina	1	
Rhamnus	alnifolia	1	
	arguat velutina	0.2	
	cathartica	0	4, 5, 5, 5, 4, 5, 4, 5, 4, 5, 4, 4, 4, 5, 6, 5, 5, 6
	davurica	0.2	
	frangula	0.2	
	japonica	0.2	
	lanceolata	1	
	utilis	0.2	
Rhododendron	nudiflorum	0.2	
Rhus	aromatica	1	
	aromatica arenaria	1	
	x borealis	.5	
	copallina latifolia	1	
	glabra	.5	
	radicans	.75	
	typhina	.5	
	vernix	1	
Robinia	hispida	0.2	
	hispida fertilis	0.2	
	luxurians	0.2	
	pseudoacacia	0.2	
	viscosa	0.2	

Table A Tally Sheet March 2007

Genus	Species	"M" for Calculating Tree Value C of 5 or greater M = 1 C of 2 to 4 M = .75 C of 0 to +1 M = .5 No C Value (non-native) m = .2	Trees listed by diameter
Rubus	allegheniensis	.75	
	enslenii	1	
	flagellaris	.75	
	hispidus	1	
	idaeus	0.2	
	idaeus strigosus	.75	
	laciniatus	0.2	
	occidentalis	.75	
	odoratus	1	
	pensylvanicus	.75	
	phoenicolasius	0.2	
	pubescens	1	
	setosus	1	
Salix	alba	0.2	
	amygdaloides	1	
	babylonica	0.2	
	bebbiana	1	
	canadica	1	
	caprea	0.2	
	cinerea	0.2	
	discolor	.75	
	eriocephala	1	
	fragilis	0.2	
	x glatfelteri	1	
	glaucophylloides	.5	
	humilis	1	
	interior	.75	
	lucida	1	
	nigra	.75	
	pedicellaris hypoglauca	1	
	pentandra	0.2	
	petiolaris	1	
	purpurea	0.2	
	x rubens	0.2	
	sericea	1	
	serisima	1	
	syratica	1	
Sorbus	aucuparia	0.2	
	decor	1	

Table A Tally Sheet March 2007

Genus	Species	"M" for Calculating Tree Value C of 5 or greater M = 1 C of 2 to 4 M = .75 C of 0 to +1 M = .5 No C Value (non-native) m = .2	Trees listed by diameter
Taxus	canadensis	1	
Thuja	occidentalis	1	
Tilia	americana	1	11
Tsuga	canadensis	1	
Ulmus	americana	.75	
	x notha	0.2	
	pumila	0.2	7, 8
	rubra	.75	
	thomasii	1	
Any non-native not listed		0.2	

Table A Tally Sheet March 2007

Table B: Tally Sheet for Tree Values

Tree Valuation Matrix for trees > 4 inches DBH																																			
Tree diameter (dbh)(in.)	pi	radius squared	*Value per inch cross section	basic value	Location and Condition Multiplier (.65 X .65 = .4225)	Tree Value for trees with native index of 5 or greater (Multiplier = 1)	# Trees With Multiplier = 1	Total \$ for Trees with multiplier = 1	Tree Value for trees with native index of 2 to 4 (Multiplier = .75)	# Trees With Multiplier = .75	Total \$ for Trees with multiplier = .75	Tree Value for trees with native index of 1, or 0 (Multiplier = .5)	# Trees With Multiplier = .5	Total \$ for Trees with multiplier = .5	Tree Value for non-native trees (Multiplier =.2)	# Trees With Multiplier = .2	Total \$ for Trees with multiplier = .2																		
3	3.14	2.25	\$71.00	\$501.87	0.4225	\$212.04		\$159.03		\$106.02				\$42.41																					
4	3.14	4	\$71.00	\$892.21	0.4225	\$376.96		\$282.72	1	\$282.72	\$188.48	4	\$753.92	\$75.39																					
5	3.14	6.25	\$71.00	\$1,394.08	0.4225	\$589.00		\$441.75	2	\$883.50	\$294.50	6	\$1,767.00	\$117.80																					
6	3.14	9	\$71.00	\$2,007.48	0.4225	\$848.16		\$636.12	2	\$1,272.24	\$424.08	1	\$424.08	\$169.63																					
7	3.14	12.25	\$71.00	\$2,732.40	0.4225	\$1,154.44	1	\$1,154.44	2	\$1,731.66	\$577.22			\$230.89	1	\$230.89																			
8	3.14	16	\$71.00	\$3,568.85	0.4225	\$1,507.84		\$1,130.88		\$753.92		2	\$1,507.84	\$301.57	1	\$301.57																			
9	3.14	20.25	\$71.00	\$4,516.82	0.4225	\$1,908.36		\$1,431.27		\$954.18		1	\$954.18	\$381.67																					
10	3.14	25	\$71.00	\$5,576.33	0.4225	\$2,356.00		\$1,767.00		\$1,178.00		1	\$1,178.00	\$471.20																					
11	3.14	30.25	\$71.00	\$6,747.36	0.4225	\$2,850.76	1	\$2,850.76		\$2,138.07				\$570.15																					
12	3.14	36	\$71.00	\$8,029.91	0.4225	\$3,392.64		\$2,544.48	1	\$2,544.48	\$1,696.32	1	\$1,696.32	\$678.53																					
13	3.14	42.25	\$71.00	\$9,423.99	0.4225	\$3,981.64		\$2,986.23		\$2,238.17				\$796.33																					
14	3.14	49	\$71.00	\$10,929.60	0.4225	\$4,617.76		\$3,463.32		\$2,608.88				\$923.55																					
15	3.14	56.25	\$71.00	\$12,546.74	0.4225	\$5,301.00		\$3,975.75	1	\$3,975.75	\$2,650.50	1	\$2,650.50	\$1,060.20																					
16	3.14	64	\$71.00	\$14,275.40	0.4225	\$6,031.36		\$4,523.52		\$3,404.42				\$1,206.27																					
17	3.14	72.25	\$71.00	\$16,115.58	0.4225	\$6,808.83		\$5,106.63		\$3,816.72				\$1,361.77																					
18	3.14	81	\$71.00	\$18,067.30	0.4225	\$7,633.43		\$5,725.08		\$4,252.58				\$1,526.69																					
19	3.14	90.25	\$71.00	\$20,130.54	0.4225	\$8,505.15		\$6,378.86		\$4,712.00				\$1,701.03																					
20	3.14	100	\$71.00	\$22,305.31	0.4225	\$9,423.99		\$7,067.99	1	\$7,067.99	\$4,712.00			\$1,884.80																					
21	3.14	110.25	\$71.00	\$24,591.60	0.4225	\$10,389.95		\$7,792.46		\$5,194.98				\$2,077.99																					
22	3.14	121	\$71.00	\$26,989.42	0.4225	\$11,403.03		\$8,552.27		\$5,701.52				\$2,280.61																					
23	3.14	132.25	\$71.00	\$29,498.77	0.4225	\$12,463.23		\$9,347.42		\$6,231.62				\$2,492.65																					
24	3.14	144	\$71.00	\$32,119.64	0.4225	\$13,570.55		\$10,177.91		\$6,785.27				\$2,714.11																					
25	3.14	156.25	\$71.00	\$34,852.04	0.4225	\$14,724.99		\$11,043.74	1	\$11,043.74	\$7,362.49			\$2,945.00																					
26	3.14	169	\$71.00	\$37,695.97	0.4225	\$15,926.55		\$11,944.91		\$7,963.27				\$3,185.31																					
27	3.14	182.25	\$71.00	\$40,651.42	0.4225	\$17,175.23		\$12,881.42		\$8,587.61				\$3,435.05																					
28	3.14	196	\$71.00	\$43,718.40	0.4225	\$18,471.03		\$13,853.27		\$9,235.51				\$3,694.21																					
29	3.14	210.25	\$71.00	\$46,896.91	0.4225	\$19,813.94		\$14,860.46		\$9,906.97				\$3,962.79																					
30	3.14	225	\$71.00	\$50,186.94	0.4225	\$21,203.98		\$15,902.99		\$10,601.99				\$4,240.80																					
31	3.14	240.25	\$71.00	\$53,588.50	0.4225	\$22,641.14		\$16,980.86		\$11,320.57				\$4,528.23																					
32	3.14	256	\$71.00	\$57,101.59	0.4225	\$24,125.42		\$18,094.07		\$12,062.71				\$4,825.08																					
33	3.14	272.25	\$71.00	\$60,726.20	0.4225	\$25,656.82		\$19,242.61		\$12,828.41				\$5,131.36																					
34	3.14	289	\$71.00	\$64,462.34	0.4225	\$27,235.34		\$20,426.50		\$13,617.67				\$5,447.07																					
35	3.14	306.25	\$71.00	\$68,310.01	0.4225	\$28,860.98		\$21,645.73		\$14,430.49				\$5,772.20																					
36	3.14	324	\$71.00	\$72,269.20	0.4225	\$30,533.74		\$22,900.30		\$15,266.87				\$6,106.75																					
37	3.14	342.25	\$71.00	\$76,339.92	0.4225	\$32,253.61		\$24,190.21		\$16,126.81				\$6,450.72																					
38	3.14	361	\$71.00	\$80,522.16	0.4225	\$34,020.61		\$25,515.46		\$17,010.31				\$6,804.12																					
39	3.14	380.25	\$71.00	\$84,815.93	0.4225	\$35,834.73		\$26,876.05		\$17,917.37				\$7,166.95																					
40	3.14	400	\$71.00	\$89,221.23	0.4225	\$37,695.97		\$28,271.98		\$18,847.99				\$7,539.19																					
41	3.14	420.25	\$71.00	\$93,738.06	0.4225	\$39,604.33		\$29,703.25		\$19,802.16				\$7,920.87																					
42	3.14	441	\$71.00	\$98,366.41	0.4225	\$41,559.81		\$31,169.86		\$20,779.90				\$8,311.96																					
43	3.14	462.25	\$71.00	\$103,106.29	0.4225	\$43,562.41		\$32,671.80		\$21,781.20				\$8,712.48																					
44	3.14	484	\$71.00	\$107,957.69	0.4225	\$45,612.12		\$34,209.09		\$22,806.06				\$9,122.42																					
45	3.14	506.25	\$71.00	\$112,920.62	0.4225	\$47,708.96		\$35,781.72		\$23,854.48				\$9,541.79																					
46	3.14	529	\$71.00	\$117,995.08	0.4225	\$49,852.92		\$37,389.69		\$24,926.46				\$9,970.58																					
47	3.14	552.25	\$71.00	\$123,181.06	0.4225	\$52,044.00		\$39,033.00		\$26,022.00				\$10,408.80																					
48	3.14	576	\$71.00	\$128,478.57	0.4225	\$54,282.20		\$40,711.65		\$27,141.10				\$10,856.44																					
49	3.14	600.25	\$71.00	\$133,887.61	0.4225	\$56,567.52		\$42,425.64		\$28,283.76				\$11,313.50																					
50	3.14	625	\$71.00	\$139,408.17	0.4225	\$58,899.95		\$44,174.97		\$29,449.98				\$11,779.99																					
51	3.14	650.25	\$71.00	\$145,040.26	0.4225	\$61,279.51		\$45,959.63		\$30,639.76				\$12,255.90																					
52	3.14	676	\$71.00	\$150,783.88	0.4225	\$63,706.19		\$47,779.64		\$31,853.09				\$12,741.24																					
53	3.14	702.25	\$71.00	\$156,639.02	0.4225	\$66,179.99		\$49,634.99		\$33,089.99				\$13,236.00																					
54	3.14	729	\$71.00	\$162,605.69	0.4225	\$68,700.91		\$51,525.68		\$34,350.45				\$13,740.18																					
55	3.14	756.25	\$71.00	\$168,683.89	0.4225	\$71,268.94		\$53,451.71		\$35,634.47				\$14,253.79																					
56	3.14	784	\$71.00	\$174,873.61	0.4225	\$73,884.10		\$55,413.08		\$36,942.05				\$14,776.82																					
57	3.14	812.25	\$71.00	\$181,174.86	0.4225	\$76,546.38		\$57,409.78		\$38,273.19				\$15,309.28																					
58	3.14	841	\$71.00	\$187,587.64	0.4225	\$79,255.78		\$59,441.83		\$39,627.89				\$15,851.16																					
59	3.14	870.25	\$71.00	\$194,111.94	0.4225	\$82,012.30		\$61,509.22		\$41,006.15				\$16,402.46																					
60	3.14	900	\$71.00	\$200,747.77	0.4225	\$84,815.93		\$63,611.95		\$42,407.97				\$16,963.19																					
								\$4,005.20									\$28,802.08									\$10,931.84									\$532.46

GRAND TOTAL
\$44,271.58

native index = 1 total

native index = .75 total

native index = .5 total

native index = .2 total

total # trees native index = 1.0 2

total # trees native index = 0.75 11

total # trees native index = 0.5 17

total # trees native index = 0.2 2

TOTAL TREES
32

*The dollar amount of \$71 as used in examples shown in this plan, was the published amount as of May 2007. This \$71 amount was used for example purposes only, the actual value will vary depending on the current amount published on the Illinois