

# **Scope and Approach**

## 1 Project Management

### Task 1.1: Project Kick-Off Meeting

Dudek plans to initiate the project with a meeting between City staff and the Dudek team to solidify specific project goals, discuss scope of work details, and confirm reporting and communication procedures. The group will discuss existing tree removal and protection processes and the existing financial and human resources dedicated to tree removal review and permitting. Dudek will provide an agenda prior to the meeting and submit meeting minutes summarizing major topic discussions following the meeting.

### Task 1.2: Check-In Meetings

Following the project kickoff meeting, Dudek will meet (virtually) with City staff as needed to discuss scope of work details to ensure clear communication of progression of the project and to ensure on-time completion of desired deliverables. These check-in meetings will occur throughout the duration of the project and will be the chief way the City will be informed of project progress. Additional project communication not addressed during the monthly meetings will occur via email or telephone.

### 2 Tree Preservation Ordinance Analysis

### Task 2.1: Analysis of Draft Protected Tree Ordinance and Relevant Documents

For this task, Dudek will focus on a comprehensive review of the City's Tree Preservation Ordinance (Ordinance) and relevant Zoning Regulations, General Plan, and other applicable regulations and policies. The review of the ordinances, plans, and regulations will include several key aspects to ensure they meet the standards of sustainable urban forest management. Key areas of the analysis and review of ordinances, plans, and regulations include the following:

- Determining if they have clearly defined parameters for when a tree is considered protected based on factors such as tree species, diameter at standard height, and property type
- Analyze the process and the permit fees by which requests are considered for the removal of protected trees
- Examine whether replacement/mitigation planting requirements support the urban forest goals of the City
- Determining if the defined penalties for violation are sufficient to deter violation of the ordinance, plan, or regulation

Dudek will provide an analysis of nearby municipal urban forest programs and ordinances to evaluate how the City's ordinance compares. The analysis will specifically address guidelines for removing tree assets on City managed land, private property, and other government managed land within the City.

### Task 2.2: Analysis of Conflicts, Opportunities, Governance Structure

To complete this task, Dudek intends to hold interviews with appropriate City staff representatives who are involved in the permitting, processing, and implementation of tree protection ordinances and policies as well as other staff who directly affect tree preservation and green infrastructure design or planning efforts within the City. These interviews provide valuable insight into the day-to-day management and operations of the City and are intended to better understand the following:

- Opportunities to streamline internal protocol and processes for protected tree removal requests and management
- Regulation and policy conflicts
- The governance structure and financial and human resources dedicated to managing ordinances, policies, and regulations
- Areas where ordinance language is confusing or unclear
- Goals, policies, and priorities of each department that relate to tree protection and urban forest management
- Goals of the City related to climate adaptation and equity

Following the interviews, Dudek will summarize all relevant information. This information will be an important component in developing the specific recommendations towards updating the Ordinance and related documents. Dudek anticipates up to four (4) interviews will be needed for this task.

### **Task 2.3: Tree Mitigation Alternatives Comparison Study**

Dudek will prepare a fee comparison study to determine an appropriate in-lieu mitigation fee for use when tree replacement is not feasible on the property where the removal occurred. The comparison study will examine the inlieu fee structures used by other municipal programs as it relates to associated costs of tree acquisition, planting, maintenance and monitoring, and administration. Based on this study, Dudek will prepare a list of recommendations for an in-lieu fee structure that can be used as a model for the City to consider in development of the fee.

## 3 Community Engagement

#### **Task 3.1 In-Person Engagement Activities**

#### Task 3.1.1 Outreach Events

Dudek will coordinate and host a series of community outreach efforts to better understand public perspectives and priorities related to the ordinance and trees in the City. Outreach efforts will be targeted to communities that may not be able to participate in web-based outreach activities, such as a virtual meeting or online survey. Dudek will work with the City and stakeholders to identify and reach these communities through public events, such as a farmers' market, youth sporting events, or neighborhood association meetings. Dudek anticipates attending up to two (2) public outreach events. The first outreach event will occur in the beginning of the Ordinance review process. Dudek staff will attend the event with interactive, educational boards to better understand stakeholder values and opinions of trees and the Ordinance. Hard copies of the online survey (described below) will be made available as



well. The second round public outreach event will occur after completion of the draft Ordinance. At this event, Dudek will highlight key updates to the Ordinance regarding trees that are protected, tree replacement guidelines, and City design processes to approve permit removal applications. The public will be encouraged to provide written comments that will be used to further refine the draft Ordinance. Following the public outreach events, Dudek will deliver a summary report to the City on the public input received.

### **Task 3.2 Online Engagement Activities**

#### Task 3.2.1 Social Media

Dudek's marketing and graphics team will assist the City in developing social media content for the City to disseminate information about the Ordinance update process and public engagement opportunities including the public survey. Social media content will be uniquely designed to fit the City's desired image.

### Task 3.2.2 Focus Groups

In addition to the City staff interviews, Dudek will hold two (2) focus groups with key stakeholders selected by the City in consultation with the Dudek team. The purpose of the focus groups will be to meet with a wide range of stakeholders who are impacted by the Ordinance to further understand how the regulations and permit process impact development, trees on residential properties, and other private property locations. Selected stakeholders would represent a cross section of Hayward stakeholders, such as those who implement development projects, other agencies, and commercial property managers. The focus groups will help inform key aspects of how to ensure clarity about when a tree is protected, the application process, and tree replacement planting requirements. Following the focus groups, Dudek will summarize all relevant information from each focus group.

### **Task 3.3 Supplemental Engagement Activities**

#### Task 3.3.1 Website Content

Dudek will leverage the City's existing webpage as a landing page for all project updates and key findings, PDFs of educational pamphlets, a calendar of in-person engagement events, and links and QR codes to the public tree survey. All website content will inform community members about all the various ways they can participate in the ordinance update process.

#### Task 3.3.2 Ordinance Guidance Document

Dudek will begin by working with City staff to identify which arboricultural best management practices will be included in the Guidance Document (Document) that are most pertinent to ensuring the protection and preservation of trees throughout all phases of permitting and project implementation. Development of this section will include a review of current Document management practices, standards, details, and design practices. Document management practices will be measured against International Society of Arboriculture (ISA) and American National Standards Institute (ANSI) standards, current research, and experience of the consultant team. Dudek will provide recommendations for updates to existing practices to be reviewed with the City team and for inclusion in the guidance document. The end result will be an 8–10-page graphic based document that reflects key elements of the Ordinance and tree management actions including:

- Definitions of Ordinance terms
- How to measure trunk diameter



- Descriptions and images of protected tree species
- What to include in an arborist report
- Permit processes
- Best management practices for how to properly plant, water, maintain, and prune trees
- Contact information for outside agencies for tree permit and maintenance services

## 4 Hayward Executive Airport Landscape Guidelines

### **Task 4.1 Review Hayward Executive Airport Landscape Guidelines**

For this task, Dudek will focus on a comprehensive review of the Hayward Executive Airport landscape guidelines and other applicable regulations and policies including Federal Aviation Administration (FAA) Advisory Circular 150/5200-33C dated February 21, 2020 (and subsequent revisions) "Hazardous Wildlife Attractants on or near Airports". The review will focus on developing recommendations for tree and landscape plans for the area. Dudek will prepare a summary of its review for Airport staff to guide discussions in developing the airport landscape plan in task 4.3.

### **Task 4.2 Airport Landscape Plan**

Dudek will prepare plant palettes for trees, shrubs, and ground covers identifying species that address the Airport priorities for aircraft safety including minimizing attractiveness to birds and other wildlife, controlling height of trees at full growth, and limiting potential for vegetation to create foreign object debris (FOD) on the airfield. In addition, species selection will consider the plants' ability to be drought tolerant and low water using, as well as physical constraints at Hayward Executive Airport and the vicinity such as depth to groundwater and variable soil conditions. It is expected that two plant palettes will be prepared under Task 4.3: one for species to be planted on the airport property, and the other for species to be planted outside the airport property, potentially with zonal recommendations (e.g., within 500 feet, within 1 mile, within 5 miles) of distance from the airport property. Both native-to-the region and ornamental landscape plant species will be considered. We assume that soil reconditioning will occur in preparation of any plantings, including soil loosening (decompaction), addition of amendments, and incorporation of organic matter.

Under this task, Dudek will research available information and previous studies, conduct expert collaboration about our findings, and prepare two tables listing the recommended plant species to serve as the plant palettes noted above. To initiate this task, Dudek will research available information on the Hayward Executive Airport natural resource conditions such as soils, hydrology, vegetation, and climate. In addition, we will review past studies regarding vegetation and planting in and around airports, bird strike studies, and the effects of wildlife near airports. Upon reviewing the information and previous studies, Dudek's landscape architect will compare findings and incorporate our knowledge and expertise to develop initial plant palettes. Dudek will refine the plant palettes to address the following goals and objectives:

 On airport property, the plant palette will minimize attractiveness to birds and other wildlife by prescribing species that provide less perching space; and will not include fruiting trees or decorative plantings that produce seeds and berries. Further, the plant palette will prescribe tree species with controlled height at maturity, and ground cover species that can persist on the airport property (shallow groundwater, periodic drought, and variable soils).



Off of the airport property, the plant palette will minimize species that attract birds. In addition, the plant
palettes will prescribe plant palette will prescribe tree species with controlled height at maturity, and ground
cover species that can persist on the airport property (shallow groundwater, periodic drought, and variable
soils).

The plant palettes will be prepared as tables listing the recommended plant species. The tables will be organized by trees, shrubs, and ground covers; specific plant species will be prescribed by botanical and common name, shape and form, deciduous vs. evergreen, mature height, and suggested plant spacing. Dudek anticipates that up to two (2) iterations of the plant palettes will be prepared: 1) a draft submittal for the Department's review, and 2) a final submittal reflecting any modifications based on the Department's review.

### **Task 4.3 Presentations to Airport Committee**

Dudek anticipates one (1) presentation to the Airport Committee. The first meeting will be an informational update on the project and will present initial results of study. The second meeting will be to present the final landscape plan and updates to the Hayward Executive Airport Wildlife Hazard Mitigation Plan. In advance of each Committee meeting, Dudek will prepare a PowerPoint presentation that will be reviewed by Airport staff (two drafts). The anticipated turnaround time for each review will be approximately two weeks.

## 5 Updated Ordinance and Presentations

### Task 5.1 Admin and Public Draft Ordinance Update

Dudek will submit a first draft to City staff within seven (7) months from the day of the commencement of work, and a second draft, including all revisions, within 60 calendar days of receiving city comments on the first draft submittal. We request that the appropriate City personnel provide comments on the first draft within a four (4) week time frame. These edits will be incorporated, and the second draft will be made available to the public for review and comment. Dudek will coordinate with the City to post the second draft on its website and other important media channels. A dedicated email address and set of public comment instructions will be created by Dudek to facilitate receipt and organization of public comments. The open period for public review and comment of the draft of the Ordinance will be 30 calendar days.

#### **Task 5.2 Final Draft Ordinance Update**

Following completion of the 80% draft review process, the final Ordinance will be developed, incorporating City and public comments, and will be completed with twelve (12) months of commencement. The final copy will be submitted as an electronic copy in Adobe PDF format, along with a number of bound hard copies determined with the City, and can be formatted to be placed on the City webpage.

#### **Task 5.3 City Council Presentations**

Dudek anticipates two (2) presentations to the City Council. The first meeting will be an informational update on the project to be provided during a City Council work session. We will present the results of the community feedback effort and the resulting updated ordinance recommendations to the City Council. The second meeting will be at a full City Council session with the intent of Ordinance adoption by Council. In advance of each City Council meeting, Dudek will prepare a PowerPoint presentation that will be reviewed by City staff (two drafts). The anticipated turnaround time for each review will be approximately two weeks.



# 6 Option #1 - USFS Canopy Cover Study

For this task, Dudek will utilize publicly available canopy and land use data generated by the United States Forest Service Urban Tree Canopy Assessment in 2018 and any newer canopy data that maybe become available during the project. Dudek will conduct a canopy analysis that includes all trees within City limits, including public and private property, open space, natural resource areas, creek and riparian areas, golf courses, and other areas defined by the project team and the City. This analysis will focus on the City's existing canopy cover, which consists of the area of the City covered by trees when viewed from above. The resulting canopy cover study will provide information on the distribution of trees and tree density on all identified study areas and analyze whether trees are equitably distributed throughout the City.

The final product will be a GIS data file of the tree canopy in the City for 2018. Results of the canopy cover analysis will be reported as City total canopy coverage, and then further broken down by public and private property, census tracts, parks/open space, transportation corridors, council districts, or other delineations desired by the City. Our graphics staff will take the interpretation of this information and create charts, graphs, and tables that are visually appealing and understandable.

# 7 Option #2 - Hayward LiDAR Canopy Cover Study

Dudek will conduct an image-based mapping of urban tree canopies within the City, using LiDAR and aerial imagery from 2020 provided by the City of Hayward. The tree canopy analysis for 2020 will combine LiDAR (collected on June 2020) tree height information derived using bare ground and top-of-surface (e.g., top of trees, buildings, etc.) with 2020 multispectral imagery. The combined multispectral imagery and feature height products will be used to map all trees within the City, using both multispectral analysis approaches and machine learning image classification. An accuracy assessment will be performed to evaluate the accuracy of the urban tree canopy product. Dudek proposes to also document our methodology so that the City can conduct a similar analysis in the future.

Dudek will use this process to conduct a canopy analysis that includes all trees within City limits, including public and private property trees, open space, natural resource areas, creek and riparian areas, golf courses, and other areas defined by the project team and the City. This analysis will focus on the City's existing canopy cover, which consists of the area of the City covered by trees when viewed from above. The resulting canopy cover study will provide information on the number of trees and tree density on all identified study areas, and provide analysis if trees are equitably distributed throughout the City.

The final product will be a GIS data file of the tree canopy in the City for 2020. Results of the canopy cover analysis will be reported as City total canopy coverage, and then further broken down by public and private property, census tracts, parks/open space, transportation corridors, council districts, or other delineations desired by the City. Our graphics staff will take the interpretation of this information and create charts, graphs, and tables that are visually appealing and understandable.



### 8 Additional Services

Should the actual effort to complete the proposed tasks be greater than anticipated and include out-of-scope requests, additional fee authorizations will be requested. No work in excess of the proposed fee or outside of the proposed scope of work will be performed without written authorization from the client. Any approved out-of-scope work will be billed on a time-and-materials basis according to our 2023 rate schedule.



## Cost

|          |   |                   |               |             | Dudek Labor H | lours and Rates |               |                   |                 |       |                           |                  |             |
|----------|---|-------------------|---------------|-------------|---------------|-----------------|---------------|-------------------|-----------------|-------|---------------------------|------------------|-------------|
|          |   | Senior Specialist |               |             |               |                 | Project       | Creative Services |                 |       |                           |                  |             |
|          | Project Team Role:  | Senior Specialist | Specialist II | Analyst IV  | Analyst IV    | Specialist V    | mental        | IV                | GIS Analyst IV  |       |                           |                  |             |
|          | Froject realif Role.  |                   |               | Analyser    | Allulyselv    | Opecialist *    | mentai        | <u></u>           | Olo Allulyst IV | ī     |                           |                  |             |
|          |   |                   | Clarissa      |             |               |                 |               |                   |                 | TOTAL |                           |                  |             |
|          | Team Member:  | Ryan Allen        | Boyajian      | Jared Davis | Kalie Ortiz   | John Zanzi      | Michael Henry | Raoul Ranoa       | Curtis Battle   | DUDEK | DUDEK LABOR               |                  |             |
|          | Billable Rate:  | \$200.00          | \$155.00      | \$125.00    | \$125.00      | \$185.00        | \$265.00      | \$165.00          | \$165.00        | HOURS | COSTS                     | COSTS            | TOTAL FEE   |
| Task 1   | Project Management  |                   |               |             | _             |                 |               |                   |                 | _     |                           |                  |             |
| 1.1      | Project Kick-off meeting  | 2                 | 1             | 1           | 2             | 1               | 1             |                   |                 | 8     | \$1,380.00                |                  | \$1,380.00  |
| 1.2      | Check-In Meetings   | 20                | 6             |             | 6             | 4               | 4             |                   |                 | 40    | \$7,480.00                |                  | \$7,480.00  |
| T . I O  | Subtotal Task 1   | 22                | 7             | 1           | 8             | 5               | 5             |                   |                 | 48    | \$8,860.00                |                  | \$8,860.00  |
| 2.1      | Tree Preservation Ordinance Analysis Analysis of Protected Tree Ordinance | 6                 | 14            | 40          |               |                 |               |                   |                 | 60    | \$8,370.00                |                  | \$8,370.00  |
| 2.1      | Analysis of Conflicts, Opportunities,                                     | 0                 | 14            | 40          |               |                 |               |                   |                 | 00    | \$0,370.00                |                  | \$0,370.00  |
| 2.2      | Governance Structure (4 interviews)                                       | 6                 | 6             | 6           |               | 4               | 4             |                   |                 | 26    | \$4,680.00                |                  | \$4,680.00  |
| 2.3      | Comparison Study  | 2                 | 4             | 16          |               |                 | · ·           |                   |                 | 22    | \$3,020,00                |                  | \$3,020.00  |
|          | Subtotal Task 2   | 14                | 24            | 62          |               | 4               | 4             |                   |                 | 108   | \$16,070.00               |                  | \$16,070.00 |
| Task 3   | Community Engagement  |                   |               |             |               |                 |               |                   |                 |       |                           |                  |             |
| 3.1      | In-Person Engagement Activities (2)                                       | 2                 |               | 16          | 4             |                 |               |                   |                 | 22    | \$2,900.00                | \$130.00         | \$3,030.00  |
| 3.3      | Social Media  |                   |               |             | 6             |                 |               | 8                 |                 | 14    | \$2,070.00                |                  | \$2,070.00  |
| 3.4      | Focus Groups (2)  | 4                 | 2             | 2           | 4             |                 |               |                   |                 | 12    | \$1,860.00                |                  | \$1,860.00  |
| 3.3.4    | Optional Engagement Activities  |                   |               |             |               |                 |               |                   |                 |       |                           |                  |             |
|          | 3.3.4.1 Website Content   |                   |               |             | 8             |                 |               | 10                |                 | 18    | \$2,650.00                |                  | \$2,650.00  |
|          | 3.3.4.2 Guidance Document   | 8                 |               | 16          |               |                 |               | 30                |                 | 54    | \$8,550.00                |                  | \$8,550.00  |
|          | Subtotal Task 3   | 14                | 2             | 34          | 22            |                 |               | 48                |                 | 120   | \$18,030.00               | \$130.00         | \$18,160.00 |
| Task 4   | Airport Mitigation Plan   |                   |               |             |               |                 |               |                   |                 |       |                           |                  |             |
|          | Review/Update of Wildlife Hazardous                                       |                   |               |             |               |                 | 8             |                   |                 | 16    | *** ****                  |                  | \$3,600.00  |
| 4.1      | Mitigation Plan   |                   |               |             |               | 8 30            | 30            |                   |                 | 60    | \$3,600.00<br>\$13,500.00 |                  | \$3,600.00  |
| 4.3      | Airport Landscape Plan Presentations to Airport Committee (1)             |                   |               |             |               | 30              | 6             |                   |                 | 6     | \$1,590.00                | \$65.00          | \$1,655.00  |
| 4.4      | Subtotal Task 4   |                   |               |             |               | 38              | 44            |                   |                 | 82    | \$18.690.00               | \$65.00          | \$18,755.00 |
| Task 5   | Updated Ordinance and Presentations                                       |                   |               |             |               | 30              | 44            |                   |                 | UZ.   | \$10,050.00               | \$00.00          | \$10,733.00 |
| 5.1      | Admin and Public Draft  | 8                 | 8             | 24          |               |                 |               |                   |                 | 40    | \$5.840.00                |                  | \$5.840.00  |
| 5.2      | Final Updated Ordinance   | 8                 | , i           | 16          |               |                 |               |                   |                 | 24    | \$3,600.00                |                  | \$3,600.00  |
| 5.3      | City Council Presentations (2)  | 16                |               |             |               |                 |               |                   |                 | 16    | \$3,200.00                | \$488.75         | \$3,688,75  |
|          | Subtotal Task 5   | 32                | 8             | 40          |               |                 |               |                   |                 | 80    | \$12,640.00               | \$488.75         | \$13,128.75 |
|          | Total Hours   | 82                | 41            | 137         | 30            | 47              | 53            | 48                | 0               | 438   |                           |                  | , ,         |
|          |   |                   |               |             |               |                 |               |                   |                 |       |                           | Contigency (10%) | \$7,497.38  |
|          | Total   | \$16,400.00       | \$6,355.00    | \$17,125.00 | \$3,750.00    | \$8,695.00      | \$14,045.00   | \$7,920.00        | \$0.00          |       | \$74,290.00               | \$683.75         | \$82,471.13 |
|          | Percent of Hours (Base)   | 19%               | 9%            | 31%         | 7%            | 11%             | 12%           | 11%               | 0%              |       |                           |                  |             |
|          |   |                   |               |             |               |                 |               |                   |                 |       |                           |                  |             |
| Optional | Services  |                   |               |             |               |                 |               |                   |                 |       |                           |                  |             |
| Task 6   | Option 1 - USFS Canopy Study  | 4                 | 20            |             |               |                 |               |                   | 8               | 32    | \$5,220.00                |                  |             |
|          | Total Hours   | 86                | 61            | 137         | 30            | 47              | 53            | 48                | 8               | 470   |                           |                  |             |
|          | Total Hours   |                   | v ·           | 137         | 30            | 71              |               |                   |                 | 710   |                           |                  |             |
|          |   |                   |               |             |               |                 |               |                   |                 |       | 1                         | Contigency (10%) | \$8,019.38  |
|          | Total   | \$17,200.00       | \$9,455.00    | \$17,125.00 | \$3,750.00    | \$8,695.00      | \$14,045.00   | \$7,920.00        | \$1,320.00      |       | \$79,510.00               | \$683.75         | \$88,213.13 |
| l        | Option 2 - Hayward LiDAR Canopy   | _                 |               |             |               |                 |               |                   |                 |       |                           |                  |             |
| Task 7   | Study   | 4                 | 20            |             |               |                 |               |                   | 40              | 64    | \$10,500.00               |                  |             |
|          | Total Hours   | 86                | 61            | 137         | 30            | 47              | 53            | 48                | 40              | 502   |                           |                  |             |
|          | Total Hours   | - 00              | 61            | 137         | 30            | 41              | 33            | 40                | 40              | 502   |                           |                  |             |
|          |   | 00                | 24            | 407         |               | 12              | 50            | 40                | 40              | 500   |                           | Contigency (10%) | \$8,547.38  |
|          | Total   | 86                | 61            | 137         | 30            | 47              | 53            | 48                | 40              | 502   | \$84,790.00               | \$683.75         | \$94,021.13 |



### 2023 Rate Sheet

### **DUDEK 2023 Standard Schedule of Charges**

| Engineering Services Project Director  | \$305.00/br   |
|--|---|
| Principal Engineer III   | \$290.00/hr   |
| Principal Engineer II.   |   |
| Principal Engineer I   |   |
| Program Manager  | \$280.00/hr   |
| Senior Project Manager   | \$280.00/hr   |
| Project Manager  |   |
| Senior Engineer III  |   |
| Senior Engineer II   |   |
| Project Engineer IV/Technician IV  |   |
| Project Engineer III/Technician III  |   |
| Project Engineer II/Technician II  |   |
| Project Engineer I/Technician I  | \$175.00/hr   |
| Senior Designer II   |   |
| Senior Designer I  |   |
| Designer   |   |
| Assistant Designer  CADD Operator III  |   |
| CADD Operator II   |   |
| CADD Operator I  |   |
| CADD Drefter   |   |
| CADD Technician  | \$120.00/hr   |
| Project Coordinator  |   |
| Engineering Assistant  | \$125.00/hr   |
| Environmental Services   |   |
| Senior Project Director  | \$300.00/hr   |
| Project Director   |   |
| Senior Specialist V  |   |
| Senior Specialist IV   |   |
| Senior Specialist III  |   |
| Senior Specialist I  |   |
| Specialist V   |   |
| Specialist IV  |   |
| Specialist III   |   |
| Specialist II  |   |
| Specialist I   |   |
| Analyst V  |   |
| Analyst IV   |   |
| Analyst III  |   |
| Anglyst I  |   |
| Technician III   |   |
| Technician II  | \$75.00/hr  |
| Technician I   | \$85.00/hr  |
| Mapping and Surveying Services   |   |
| Application Developer II   | \$195.00/hr   |
| Application Developer I  |   |
| GIS Analyst V  | \$205.00/hr   |
| GIS Analyst IV   |   |
| GIS Analyst III  |   |
| GIS Analyst II   |   |
| GIS Analyst I  |   |
| Survey Legd  |   |
| Survey Manager   | \$145.00/hr   |
| Survey Crew Chief  | \$120.00/hr   |
| Survey Rod Person  |   |
| Survey Mapping Technician  | \$95.00/hr  |
| Construction Management Services   |   |
| Principal/Manager  | \$195.00/hr   |
| Senior Construction Manager  | \$185.00/hr   |
| Senior Project Manager   | \$175.00/hr   |
|  | \$170.00/hr   |
| Construction Manager   |   |
| Project Manager  |   |
| Project Manager Resident Engineer  | \$180.00/hr   |
| Project Manager Resident Engineer Construction Engineer  | \$180.00/hr<br>\$155.00/hr  |
| Project Manager Resident Engineer Construction Engineer On-site Owner's Representative                           | \$160.00/hr<br>\$155.00/hr<br>\$145.00/hr                               |
| Project Manager Resident Engineer Construction Engineer On-site Owner's Representative Prevailing Wage Inspector | \$155.00/hr<br>\$155.00/hr<br>\$145.00/hr<br>\$145.00/hr                |
| Project Manager Resident Engineer Construction Engineer On-site Owner's Representative                           | \$180.00/hr<br>\$155.00/hr<br>\$145.00/hr<br>\$145.00/hr<br>\$140.00/hr |

| Hydrogeology/HazWaste Services                               |                             |
|--|-----------------------------|
| Project Director   | \$205.00/hr                 |
| Principal Hydrogeologist/Engineer II                         |                             |
|  |                             |
| Principal Hydrogeologist/Engineer I                          |                             |
| Senior Hydrogeologist V/Engineer V                           |                             |
| Senior Hydrogeologist IV/Engineer IV                         |                             |
| Senior Hydrogeologist III/Engineer III                       |                             |
| Senior Hydrogeologist II/Engineer II                         |                             |
| Senior Hydrogeologist I/Engineer I                           |                             |
| Project Hydrogeologist V/Engineer V                          | \$205.00/hr                 |
| Project Hydrogeologist IV/Engineer IV                        |                             |
| Project Hydrogeologist III/Engineer III                      |                             |
| Project Hydrogeologist II/Engineer II                        |                             |
| Project Hydrogeologist I/Engineer I                          |                             |
| Hydrogeologist/Engineering Assistant                         | \$130.00/hr                 |
| District Management & Operations                             |                             |
| District General Manager                                     | \$225.00/hr                 |
| District Engineer  |                             |
| Operations Manager   |                             |
| District Secretary/Accountant                                |                             |
| Collections System Manager                                   |                             |
| Grade V Operator   |                             |
| Grade IV Operator  |                             |
| Grade III Operator   |                             |
| Grade II Operator  |                             |
| Grade I Operator   |                             |
| Operator in Training   |                             |
| Collection Maintenance Worker                                |                             |
| Collection Maintenance Worker                                | 375.00ynr                   |
| Creative Services  |                             |
| Creative Services IV   | \$185.00/hr                 |
| Creative Services III  | \$150.00/hr                 |
| Creative Services II   | \$135.00/hr                 |
| Creative Services I  | \$120.00/hr                 |
| Publications Services  |                             |
| Technical Editor IV  | \$185.00/hr                 |
| Technical Editor III   | \$150.00/hr                 |
| Technical Editor II  | \$135.00/hr                 |
| Technical Editor I   | \$120.00/hr                 |
| Publications Specialist IV                                   | \$125.00/hr                 |
| Publications Specialist III                                  | \$115.00/hr                 |
| Publications Specialist II                                   |                             |
| Publications Specialist I                                    |                             |
| Clerical Administration                                      |                             |
|  |                             |
| Expert Witness - Court appearances, depositions, and interre | ogatories as expert witness |

Expert Witness - Court appearances, depositions, and interrogatories as expert witness will be billed at 2.00 times normal rates. 
Elimentency and Molidays - Minimum charge of two hours will be billed at 1.75 times the normal rate. 
Material and Outside Services - Subcontractors, rental of special equipment, special reproductions and blueprinting, outside data processing and computer services, etc., are charged at 1.15 times the direct cost. 
Travel Expenses - Mileage at current IRS allowable rates. Per diem where overnight stay is involved is charged at cost. 
Involces, Late Charges - All fees will be billed to Client monthly and shall be due and payable upon receipt. Invoices are delinquent if not paid within 30 days from the date of the invoice. Client agrees to pay a monthly late charge equal to 1% per month of the outstanding balance until paid in full. 
Annual Increase in line with the CPAL for the nearest urban area per the Department of Labor Statistics to where the work.

the CPLU for the nearest urban area per the Department of Labor Statistics to where the work is being completed) or by 3% annually, whichever is higher.

The rates listed above assume prevailing wage rates does not apply. If this assumption is incorrect Dudek reserves the right to adjust its rates accordingly.

**DUDEK** 

**EFFECTIVE JANUARY 1, 2023** 

