

**MEMORANDUM OF AGREEMENT
BETWEEN THE FEDERAL HIGHWAY ADMINISTRATION,
THE INDIANA DEPARTMENT OF TRANSPORTATION,
THE INDIANA STATE HISTORIC PRESERVATION OFFICER, AND
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION
REGARDING THE I-65/I-70 NORTH SPLIT
INTERCHANGE RECONSTRUCTION PROJECT
IN INDIANAPOLIS, CENTER TOWNSHIP, MARION COUNTY, INDIANA
DES. NOS. 1592385 and 1600808**

WHEREAS the Federal Highway Administration ("FHWA") and the Indiana Department of Transportation ("INDOT") propose to reconstruct the I-65/I-70 North Split interchange as well as replace/rehabilitate bridges and replace pavement south along I-65/I-70 to the Washington Street interchange, west along I-65 to approximately Alabama Street (to Illinois Street along 11th and 12th Streets); and, east along I-70 to approximately the bridge over Valley Avenue (west of the Keystone Avenue/ Rural Street interchange) for the I-65/I-70 North Split Interchange Reconstruction Project ("North Split Project") in Indianapolis, Center Township, Marion County, Indiana; and

WHEREAS the North Split Project is subject to Section 106 of the National Historic Preservation Act (54 U.S.C. § 306108) and its implementing regulations (36 C.F.R. Section 800 [2017]) and Section 110(f) of the National Historic Preservation Act (54 U.S.C. § 306107); and

WHEREAS the FHWA, in consultation with the Indiana State Historic Preservation Officer ("Indiana SHPO"), has defined the North Split Project's original area of potential effects ("APE") for aboveground resources, as the term is defined in 36 C.F.R. Section 800.16(d), to an irregularly shaped area including the construction limits and an area approximately 0.25–0.5 mile around the construction limits of the project, with the distance varying based on the viewshed; as well as expanded areas along the following street segments: Fall Creek Parkway (from 38th Street south to College Avenue), College Avenue (from Fall Creek Parkway south to the original APE), West Street (from the I-65 interchange south to the I-70 interchange), Missouri Street (from West Street south to the I-70 interchange), Pennsylvania Street (south from the original APE to Madison Avenue), Madison Avenue (from Pennsylvania Street to the I-70 interchange), St. Clair Street (from the original APE west to West Street), Fort Wayne Avenue (from the original APE south to St. Clair Street), East Street (from the original APE south to the original APE), Washington Street (from Rural Street west to the original APE), Rural Street (from the I-70 interchange south to Washington Street), and Massachusetts Avenue (from the original APE east to Rural Street) as shown in Attachment A; and

WHEREAS the FHWA, in consultation with the Indiana SHPO, has defined the North Split Project APE for archaeological resources, as the term defined in 36 C.F. R. Section 800.16(d), to be the area within the construction right-of-way; and

WHEREAS the FHWA, in consultation with the Indiana SHPO, has found that the historic properties listed below are within the APE; and

- Herron-Morton Place Historic District
- Old Northside Historic District
- Saint Joseph Neighborhood Historic District
- Chatham-Arch Historic District
- Massachusetts Avenue Commercial Historic District
- Lockerbie Square Historic District
- Fletcher Place Historic District
- Cottage Home Historic District
- Arsenal Technical High School Historic District
- Indianapolis Park and Boulevard System Historic District
- Indianapolis Public Library Branch No. 6 (NR-2410; IHSSI # 098-296-01173)
- Prosser House (NR-0090; IHSSI # 098-296-01219)
- Bals-Wocher House (NR-0146; IHSSI # 098-296-01375)
- Wyndham (NR-0616.33; IHSSI # 098-296-01367)
- Pierson-Griffiths House (Kemper House) [NR-0203; IHSSI # 098-296-01368]
- Calvin I. Fletcher House (NR-0694; IHSSI # 098-296-01369)
- Pennsylvania Apartments (NR-0616.26; IHSSI # 098-296-01379)
- The Myrtle Fern (NR-0616.25; IHSSI # 098-296-01389)
- The Shelton (NR-0616.23; IHSSI # 098-296-01390)
- Cathcart Apartments (NR-0616.09; IHSSI # 098-296-01391)
- Lodge Apartments (NR-0616.19; IHSSI # 098-296-01392)
- Plaza Apartments (NR-0616.27; IHSSI # 098-296-01393)
- The Ambassador (NR-0616.03; IHSSI # 098-296-01394)
- Central Library of Indianapolis-Marion County Public Library (NR-0085; IHSSI # 098-296-01395)
- The Burton (NR-0616.08; IHSSI # 098-296-01396)
- The Vera and The Olga (NR-0725; IHSSI # 098-296-01415)
- Independent Turnverein (NR-0641; IHSSI # 098-296-01428)
- Cole Motor Car Company (NR-0332; IHSSI # 098-296-01651)
- Gaseteria, Inc. (NR-2266)
- Manchester Apartments (NR-1406)
- Sheffield Inn (NR-1373)
- Delaware Court (NR-0616.11; IHSSI # 098-296-01370)
- The Spink (Renaissance Tower Historic Inn) [NR-0616.28; IHSSI # 098-296-01385]
- William Buschman Block (NR-0897; IHSSI # 098-296-01353)
- Morris-Butler House (NR-2027; IHSSI # 098-296-14219)
- John W. Schmidt House (The Propylaeum) [NR-2043; IHSSI # 098-296-14063]
- Pearson Terrace (NR-0695; IHSSI # 098-296-01373)
- Martin Luther King, Jr. Park
- School #27–Charity Dye Elementary School (NR-1560; IHSSI # 098-296-01309)
- Holy Cross/Westminster Historic District
- Marion County Bridge No. 2520L; NBI No. 4900233
- John Hope School No. 26 (IHSSI # 098-296-01212)
- James E. Roberts School No. 97 (IHSSI # 098-296-01220)

- Knights of Pythias (IHSSI # 098-296-01378)
- Fame Laundry (IHSSI # 098-296-01421)
- Stutz Motor Car Company (IHSSI # 098-296-01426)
- St. Rita's Catholic Church Parish Complex (AL062)
- Saints Peter and Paul Cathedral Parish Historic District
- Windsor Park Neighborhood Historic District

WHEREAS the FHWA, in consultation with the Indiana SHPO, has found that the National Historic Landmarks listed below are within the APE; and

- Benjamin Harrison Home/Presidential Site (NR-2066; IHSSI # 098-296-14057)
- James Whitcomb Riley House (NR-2067; IHSSI # 098-296-20038)

WHEREAS the FHWA, in consultation with the Indiana SHPO, has determined pursuant to 36 C.F.R. Section 800.5(a) that the North Split Project will have adverse effects on the Old Northside Historic District, the Morris-Butler House, the Saint Joseph Neighborhood Historic District, the Chatham-Arch Historic District, the Massachusetts Avenue Commercial Historic District, and the Lockerbie Square Historic District; and

WHEREAS the FHWA has consulted with the Indiana SHPO in accordance with Section 106 of the National Historic Preservation Act (54 U.S.C. § 306108) and its implementing regulations (36 C.F.R. Section 800) to resolve the adverse effects; and

WHEREAS the public was given an opportunity to comment on the undertaking's adverse effects in a notice published on December 24, 2019, in the *Indianapolis Star*; and

WHEREAS the FHWA has invited the Advisory Council on Historic Preservation ("Council") to participate in the consultation for the North Split Project, pursuant to 36 C.F.R. Section 800.6(a)(1), in an email dated March 26, 2018; and

WHEREAS the Council has elected to participate in consultation in a letter dated April 3, 2018; and

WHEREAS the FHWA, in consultation with the Indiana SHPO, has invited the Indiana Department of Transportation ("INDOT") to participate in the consultation and to become a signatory to this Memorandum of Agreement ("MOA"); and

WHEREAS the Benjamin Harrison Presidential Site has participated in consultation and elected to become an invited signatory to this MOA; and

WHEREAS Keep Indianapolis Beautiful, Inc. has participated in consultation and elected to become an invited signatory to this MOA; and

WHEREAS the agencies, organizations, or individuals listed in Attachment B have participated in the consultation; and

NOW, THEREFORE, the FHWA, the Council, and the Indiana SHPO agree that, upon FHWA's approval of the North Split Project, the North Split Project shall be implemented in accordance with the following stipulations in order to take into account the effect of the North Split Project on historic properties.

STIPULATIONS

FHWA, in coordination with INDOT, shall ensure that the following measures are carried out:

I. PROFESSIONAL QUALIFICATIONS

- A.** In consultation with the Indiana SHPO, INDOT shall ensure that all work performed pursuant to this MOA is performed or supervised by a qualified individual and/or team(s) that meet the Secretary of the Interior's Professional Qualification Standards as outlined in Appendix A to 36 C.F.R. 61 for history, archaeology, architectural history, architecture, and/or historic architecture, as appropriate.
- B.** The individual and/or team(s) performing or supervising the archaeology investigations shall have supervisory experience in the prehistoric and historic archaeology of the central Indiana region. All work performed or supervised by such person or persons shall be conducted pursuant to the provisions of Indiana Code 14-21-1, 312 Indiana Administrative Code 21, 312 Indiana Administration Code 22, and the most current "Guidebook for Indiana Historic Sites and Structures Inventory-Archaeological Sites."

II. MEASURES TO MINIMIZE AND MITIGATE ADVERSE EFFECTS

A. Tree Preservation and Plantings

- 1.** FHWA and INDOT shall ensure that project elements, including tree and vegetation plantings, are designed in accordance with the North Split Project Aesthetic Design Guidelines (Attachment C). Minor modifications may be made if approved by FHWA and INDOT as long as they are within the spirit of the Aesthetic Design Guidelines.
- 2.** FHWA and INDOT and/or its consultants shall provide a draft landscape and side slope plan (including scaled cross sections for each adjacent historic district) for consulting party review and comment at two points during the design process.
 - a)** Comment periods will be 30 calendar days.
 - b)** The first comment period will be for an initial review and comment.

- c) The second comment period will be to show how comments were addressed, allow comments on revisions, and solicit input regarding any remaining questions.
 - d) FHWA and INDOT shall make a good faith effort to address comments and shall provide responses regarding how or why comments were addressed or not addressed.
 - e) FHWA and INDOT shall have one consulting party meeting within each comment period to provide information and solicit feedback from consulting parties.
 - f) FHWA and INDOT shall have at least one neighborhood meeting within each comment period to solicit feedback from adversely affected historic districts. Residents of the Old Northside, Saint Joseph, and Chatham-Arch neighborhoods shall be the focus of the neighborhood meetings; however, the meetings will be open to the general public.
 - g) FHWA shall have the authority for final approval of actions regarding the implementation of aesthetic and landscaping measures.
3. Berms shall be included in the interchange design to provide visual shielding and noise reduction from the interchange ramps for the Old Northside and Chatham-Arch Historic Districts.
- a) The berms shall be located in the northwest quadrant of the interchange, extending from approximately 14th Street to College Avenue, and in the southwest quadrant of the interchange, extending from College Avenue to 10th Street.
 - b) The berms shall be sculpted into a softer, more natural shape and planted with trees such that they do not appear as abandoned “roadbeds”. The proposed shape of the berms shall be included in the draft landscape and side slope plan provided to consulting parties for comment.
 - c) All other remnants of previous “roadbed” use shall be removed from areas that will no longer serve such a use, including those adjacent to the O’Bannon Soccer Park.
4. INDOT shall develop a landscape maintenance plan for three years after tree and shrub planting.

5. INDOT shall engage Keep Indianapolis Beautiful, Inc. as a landscape advisor to provide recommendations and/or services for tree and shrub planting, monitoring, and maintenance for three years after planting.
6. INDOT shall replace trees and shrubs that do not survive during the first three years after planting. INDOT shall monitor planted trees and shrubs annually for three years. If dead trees or shrubs are identified during each annual monitoring, they will be replaced. If the replacement plant dies, it shall be replaced with a substitute species approved by INDOT.
7. INDOT shall identify “Do Not Disturb” areas within the project limits in order to preserve existing trees (Attachment C). The “Do Not Disturb” areas shall be marked with silt fence and signage. The only work that can occur in the “Do Not Disturb” areas is the installation of new drainage connections (to existing pipes). No clearing of trees 2-inch diameter at breast height (dbh) or greater shall be allowed in the “Do Not Disturb” areas. The “Do Not Disturb” areas shall be at the following locations:
 - a) Within the existing right-of-way of northbound I-65 adjacent to the Old Northside Historic District and Morris Butler House from College Avenue to Alabama Street. INDOT shall identify a work zone, where construction work can occur, which extends 15 feet north of the proposed retaining wall within this area. Vegetation within the existing right-of-way north of that shall be in the “Do Not Disturb” area.
 - b) Portions of the existing right-of-way of southbound I-65 where groups of mature trees are present, adjacent to the Saint Joseph Neighborhood and Chatham-Arch Historic Districts from College Avenue to Delaware Street.
 - c) Portions of the existing right-of-way of southbound I-65/ westbound I-70 where trees have been planted, adjacent to the Lockerbie Square Historic District from Michigan Street to New York Street.
8. If trees within the “Do Not Disturb” areas do not survive within one (1) year of the conclusion of construction activity within fifteen (15) feet of the area, INDOT shall plant replacement trees, at 2-inch dbh or greater in size, at a ratio of three to one (three replacement trees for each tree that does not survive). The replacement trees shall be planted in the “Do Not Disturb” areas if space allows or within INDOT right-of-way within the project area.
9. Outside of the “Do Not Disturb” areas, INDOT shall plant shrubs and trees (if appropriate for the slope and location) at the following locations:

- a) Within the 15-foot work zone north of I-65 northbound from College Avenue to Alabama Street.
- b) The side slope of southbound I-65 between Alabama Street and College Avenue.
- c) If the existing vegetation is removed during construction, along the western side slope of I-65/I-70 south of the interchange from 10th Street south to St. Clair Street.

10. INDOT shall plant trees 2-inch dbh or greater in size. This includes trees both in and out of the “Do Not Disturb” areas.

B. Connectivity Improvements

- 1.** FHWA and INDOT shall ensure project elements, including underpass treatments, are designed in accordance with the North Split Project Aesthetic Design Guidelines (Attachment C). Minor modifications may be made if approved by FHWA and INDOT as long as they are within the spirit of the Aesthetic Design Guidelines.
- 2.** FHWA shall have the authority for final approval of actions regarding the implementation of connectivity improvements.
- 3.** To improve connectivity between adversely affected historic districts, INDOT shall make the following connectivity improvements:
 - a) Between the Old Northside and Saint Joseph Neighborhood Historic Districts, improvements to the Alabama Street underpass shall include new lighting on the bridge, sidewalk pavers, and signage along Alabama Street identifying each neighborhood. Coordination shall occur with the Old Northside and Saint Joseph neighborhoods regarding their established logos and sign standards.
 - b) Between the Old Northside and Saint Joseph Neighborhood Historic Districts, improvements to the Central Avenue underpass shall include a wider bridge opening (65 feet to at least 76 feet), wider sidewalks, sidewalk pavers, new lighting with upgraded fixtures on the bridge, vertical bridge walls, elimination of drainage from the bridge above onto the street and sidewalks, and space for murals.
 - c) Between the Old Northside and Chatham-Arch Historic Districts, improvements to the College Avenue underpass shall include wider bridge openings (79 feet to at least 87 feet), wider sidewalks,

sidewalk pavers, new lighting with upgraded fixtures on the bridge, vertical bridge walls, elimination of drainage onto the street and sidewalks, and space for murals.

4. INDOT shall provide \$190,000 to the Benjamin Harrison Presidential Site towards the construction of the Old Northside Connector, a pedestrian and bicycle path to connect the alley south of the Benjamin Harrison Presidential Site to Pennsylvania Street. This stipulation will be implemented through an agreement between INDOT and the Benjamin Harrison Presidential Site.
5. INDOT shall construct a temporary detour for the Monon Trail during construction. The portion of the detour within the O'Bannon Soccer Park and within INDOT right-of-way west to College Avenue and under the College Avenue bridges will remain as a permanent feature to improve connectivity between the Old Northside and Chatham-Arch Historic Districts.
6. INDOT shall construct a temporary detour for the Monon Trail during construction. INDOT shall work with the City of Indianapolis to determine if the portion of the detour southwest of the interchange from College Avenue southeast to 10th Street can remain as a permanent feature to improve connectivity for the Chatham-Arch Historic District. Retaining this trail as a permanent feature is conditional upon INDOT reaching an agreement with the City of Indianapolis. The final decision shall be communicated to consulting parties.
7. INDOT shall install "No Construction Traffic" and "Local Traffic Only" signs at the entrance to the brick portion of 10th Street from Delaware Street to Central Avenue to protect the brick portion of 10th Street from construction traffic.
8. INDOT and its design-build team shall avoid the limestone curbs and street trees along 12th Street, north of I-65 northbound, during all construction activities. If damage occurs to the limestone curbs as a result of the North Split Project construction, INDOT shall repair the limestone curbs.

C. Vibration

1. To avoid damage to historic properties, INDOT shall ensure that a Construction Vibration Monitoring and Control Plan ("Plan") is developed by the design-build team prior to beginning any construction activities. The Plan shall at least include all buildings within historic properties or districts within 140 feet of project construction activities. The Plan will include the following key elements:

- a) Identifying buildings that are sensitive to vibration;
 - b) Conducting pre-construction surveys of all residences, historic buildings, and other vibration-sensitive structures within 140 feet of the project corridor to determine the appropriate vibration limits for the type of structure and conditions of the structure;
 - c) Developing and implementing a vibration monitoring program for construction activities; ensuring that, whenever vibration levels exceed the maximum thresholds identified in Stipulation II.C.2., construction work causing that vibration will immediately stop until such time as qualified professionals have determined that modifications have been made in the construction activities to assure that no damage shall occur to historic properties;
 - d) Conducting post-construction surveys;
 - e) Phasing construction activities that create vibration so that multiple sources of vibration do not occur at the same time;
 - f) Prohibiting or limiting certain activities that create higher vibration levels during specific nighttime hours;
 - g) Developing a method for responding to community complaints; and,
 - h) Keeping the public informed of proposed construction schedules, and identifying activities known to be a source of vibration.
2. Maximum thresholds for historic properties that shall not be exceeded are shown in Table 1 below. The values are presented in terms of peak particle velocity (PPV), the accepted method for evaluating the potential for damage.

Table 1. Construction Vibration Thresholds (PPV)

Type of Structure	Ground-borne Vibration Impact Level (PPV)
New Residential Structures	1.0 in/sec
Non-historic Older Residential Structures	0.50 in/sec
Fragile (non-engineered timber and masonry buildings)	0.20 in/sec
Extremely Fragile (buildings, ruins, ancient monuments)	0.12 in/sec

3. INDOT and/or its consultants shall provide the draft Plan to the North Split consulting parties (Attachment B) for a 30-day review period. INDOT shall respond to consulting party comments.
4. In the event vibration damage does occur as a result of the North Split Project construction activities (as evidenced by the pre- and post-construction surveys), INDOT shall ensure that the design-build team will be responsible for the cost and repair of any vibration damage to historic properties. Any repairs shall be coordinated with the Indiana SHPO to ensure they are carried out in accordance with the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings. This will be contingent on property owners allowing pre- and post-construction surveys of their buildings.
5. Where access to privately owned property is necessary for monitoring or damage repair, consent shall be obtained prior to entry.

III. TREATMENT OF ARCHAEOLOGICAL RESOURCES

A. Statutory and Regulatory Standards

1. The studies completed pursuant to Stipulation III.D shall demonstrate a level of effort consistent with the 36 C.F.R. part 800 regulations in effect on the date upon which the last of the required signatories has signed this MOA and provide FHWA with the information to determine, in consultation with the Indiana SHPO, which archaeological properties are eligible for inclusion in the NRHP. FHWA shall acknowledge and seek the special expertise of any federally recognized Indian Tribes in assessing the eligibility of historic properties that may possess religious and cultural significance to them.
2. In implementing Stipulation III.A through III.E., INDOT may consult with the consulting parties listed in Attachment B, others identified in accordance with the 36 C.F.R. part 800 regulations in effect on the date upon which this MOA is fully executed, and any other consulting parties identified later in time.
3. In accordance with Section 304 of the NHPA and the 36 C.F.R. part 800 regulations in effect on the date upon which this MOA is fully executed, INDOT and its consultants shall ensure that sensitive information regarding the nature and location of human remains and grave goods, and the location, character, and ownership of archaeological sites is kept confidential from the public.
4. In ensuring that any human remains and grave goods identified are treated in a sensitive, respectful, and careful manner, INDOT shall be guided by the Memorandum of Understanding Among The Federal Highway

Administration, Indiana State Historic Preservation Office, Indiana Department of Transportation, and Federally Recognized Tribes Interested in Indiana Lands Regarding Tribal Consultation Requirements for the Indiana Federal Transportation Program ("Tribal MOU") (Attachment D), the Council's "Policy Statement Regarding Treatment of Human Remains and Grave Goods" (February 23, 2007), the Native American Graves Protections and Repatriation Act ("NAGPRA") regulations set forth in 43 C.F.R. part 10, and other guidelines as appropriate.

5. In the event that previously unreported and unanticipated artifacts or human remains (including funerary objects, sacred objects, and objects of cultural patrimony) are found during construction activities, FHWA, in coordination with INDOT, will follow the procedures outlined in Stipulation III(C) of the Tribal MOU.
6. Modification or modifications ("modifications") to the Project which fall outside of the archaeological APE shall be subject to archaeological identification and evaluation and assessment per Stipulations III.B. and III.C. If FHWA determines that the modifications have the potential to cause adverse effects on archaeological resources, then FHWA shall treat the archaeological resource in accordance with Stipulation III.E.
7. Any dispute regarding the report(s) shall be resolved in accordance with Stipulation IV.A.

B. Identification & Evaluation

1. Before commencing ground-disturbing activities in the Project archaeological APE, INDOT shall complete the identification and evaluation of archaeological properties in accordance with applicable Federal and State standards and guidelines listed in Stipulations I and III.A.
2. INDOT and/or its consultants shall investigate any additional locations where ground-disturbing activities are proposed or where they may occur within temporary easements and permanent right of way.
3. INDOT shall prepare and distribute a final Identification and Evaluation report in accordance with Stipulations I and III.A.
4. Upon completion of the evaluation, FHWA shall follow the procedures set forth in the 36 C.F.R. part 800 regulations in effect on the date upon which this MOA is fully executed which shall include updated documentation described in those regulations, if it is determined that no historic properties shall be affected.
5. If FHWA and the Indiana SHPO agree that any archaeological resources identified are not NRHP eligible, then no further action is necessary under

the terms of this MOA and FHWA's responsibilities under Section 106 are fulfilled.

6. If FHWA determines that any of the NRHP criteria are met and the Indiana SHPO agrees, the archaeological resource shall be considered eligible for the NRHP and treated in accordance with Stipulations III.C - III.E.
7. If FHWA and the Indiana SHPO do not agree on NRHP eligibility, FHWA shall follow the procedures identified in accordance with Stipulation IV.A.

C. Assessment of Effects

1. In consultation with the Indiana SHPO, Federally recognized Indian Tribes that may ascribe traditional cultural and religious significance to affected properties, and other parties whom FHWA deems appropriate, FHWA shall determine if the North Split Project shall adversely affect archeological properties determined eligible for inclusion in the NRHP pursuant to the 36 C.F.R. part 800 regulations in effect on the date upon which this MOA is fully executed.
2. If, in consultation with the Indiana SHPO, Federally recognized Indian Tribes that may ascribe traditional cultural and religious significance to affected properties, and other parties whom FHWA deems appropriate, FHWA determines the Project may adversely affect NRHP-eligible archeological properties, then FHWA shall make reasonable efforts to avoid or minimize the adverse effect. If, after this consultation, FHWA determines it is not possible to avoid or minimize adverse effects, then FHWA shall treat the archaeological resource in accordance with Stipulation III.E. of the MOA.
3. Any dispute regarding the determination of effects on NRHP-eligible archaeological properties shall be resolved in accordance with applicable Federal and State standards and guidelines listed in Stipulation IV.B.

D. Additional Investigations

1. All archaeological investigations shall be conducted according to applicable Federal and State standards and guidelines listed in Stipulations I and III.A
2. To maximize the opportunity to avoid adverse effects, the required archaeological investigations shall be conducted as soon as practicable upon securing the appropriate rights to access property.
3. INDOT, in consultation with the Indiana SHPO and other parties deemed appropriate by INDOT, shall take reasonable measures to avoid

disinterment and disturbance to human remains and grave goods of religious and cultural significance to Native Americans, including investigations associated with modifications of the North Split Project.

4. Upon completion of any additional investigations, FHWA shall complete the identification and evaluation of archaeological resources for inclusion in the NRHP in accordance with applicable Federal and State standards and guidelines in consultation with the Indiana SHPO and appropriate consulting parties and federally recognized Indian Tribes.

E. Treatment

1. If FHWA, in consultation with the Indiana SHPO, Federally recognized Indian Tribes that may ascribe traditional cultural and religious significance to affected properties, and other parties whom FHWA deems appropriate, determines that an adverse effect cannot be avoided or minimized, then FHWA shall develop and implement a Treatment Plan(s), as part of the above consultation, to mitigate the adverse effects to an archeological resource on a site-by-site basis. The implementation of the Treatment Plan(s) must be completed for each site prior to the initiation of any North Split Project construction activities within a segment that could affect that site.

IV. ADMINISTRATIVE PROVISIONS

A. Monitoring of Compliance

1. Progress reports detailing implementation of the measures stipulated within this MOA and providing advanced notice of milestones, such as approval of design plans and initiation of construction activities, shall be submitted to signatories and concurring parties every six (6) months, until all phases of the North Split Project are complete.
2. The first progress report shall be distributed within six (6) months following execution of this MOA.
3. The progress reports shall identify the status of activities for each stipulation outlined in this MOA.
4. A consulting party meeting will be held to inform consulting parties of the status of activities and evaluate compliance with the MOA within 30 days of distribution of each progress report. The consulting party meetings could be combined with those stipulated in II.A regarding review of the landscape and side slope plans.

B. Dispute Resolution

1. If the Indiana SHPO, any invited signatory, or concurring party to this MOA should object in writing to FHWA regarding any action carried out or proposed with respect to the North Split Project or implementation of this MOA, then FHWA shall consult with the objecting party to resolve this objection. If after such consultation FHWA determines that the objection cannot be resolved through consultation, then FHWA shall forward all documentation relevant to the objection to the Council, including FHWA's proposed response to the objection. Within forty-five (45) days after receipt of all pertinent documentation, the Council shall exercise one of the following options:
 - a) Provide FHWA with a staff-level recommendation, which FHWA shall take into account in reaching a final decision regarding its response to the objection; or
 - b) Notify FHWA that the objection will be referred for formal comment pursuant to 36 C.F.R. Section 800.7(c), and proceed to refer the objection and comment. FHWA shall take into account the Council's comments in reaching a final decision regarding its response to the objection.
2. If comments or recommendations from the Council are provided in accordance with this stipulation, then FHWA shall take into account any Council comment or recommendations provided in accordance with this stipulation with reference only to the subject of the objection. FHWA's responsibility to carry out all actions under the MOA that are not the subjects of the objection shall remain unchanged.

C. Post-Review Discovery

In the event that one or more historic properties - other than the historic properties listed above - are discovered or that unanticipated effects on historic properties are found during the implementation of this MOA, FHWA shall follow the procedures specified in 36 C.F.R. Section 800.13, and Stipulation III(C) of the Tribal MOU, as well as IC 14-21-1-27 and IC 14-21-1-29, by immediately ceasing all project-related ground-disturbing activities within at least one-hundred (100) feet of the discovery and informing the Indiana SHPO, the Miami Tribe of Oklahoma, and any other tribe whose ancestral homeland is included with the area where the post-review discovery occurred according to Appendix A of the Tribal MOU of such unanticipated discoveries or effects within two (2) business days. Any necessary archaeological investigations will be conducted according to the provisions of IC 14-21-1 and 312 IAC 21, and the most current Guidebook for Indiana Historic Sites and Structures Inventory – Archaeological Sites.

D. Human Remains

In ensuring that any human remains and grave goods identified are treated in a sensitive, respectful, and careful manner, INDOT shall be guided by the Tribal MOU (Attachment D), the Council's "Policy Statement Regarding Treatment of Human Remains and Grave Goods" (February 23, 2007), the Native American Graves Protections and Repatriation Act ("NAGPRA") regulations set forth in 43 C.F.R. part 10, and other guidelines as appropriate.

Additionally, in the event that previously unreported and unanticipated artifacts or human remains (including funerary objects, sacred objects, and objects of cultural patrimony) are found during construction activities, FHWA, in coordination with INDOT, will follow the procedures outlined in Stipulation III(C) of the Tribal MOU.

E. Modifications ("Modifications") of the Project with Respect to Aboveground Resources

If the North Split Project is modified after this MOA has been executed, then FHWA shall review the North Split Project Modifications and proceed by complying with IV.C.1. and, if appropriate, IV.C.2.

- 1.** FHWA shall determine whether any Modifications have the potential to cause adverse effects on aboveground resources, if any are found to exist within the area in which the Modifications may cause effects.
 - a)** If FHWA determines that the project Modifications do not have the potential to cause adverse effects on aboveground resources, then FHWA or INDOT shall document that determination in its records, and no further review or consultation with respect to those Modifications' effects on aboveground properties is required for purposes of this MOA.
 - b)** If FHWA determines that the project Modifications have the potential to adversely affect aboveground resources, then FHWA or INDOT shall proceed to review the Modifications in accordance with Stipulation IV.E.2.
 - c)** Prior to determining whether the project Modifications have the potential to adversely affect aboveground resources, FHWA may submit, for the Indiana SHPO's files, copies of reports generated as a result of Modifications or may request the opinion of the Indiana SHPO about identification, evaluation, effects assessment or avoidance, minimization or mitigation, or any other issue under Federal or State preservation or archaeological law pertaining to the Project, provided that such a request for an opinion is not substituted for formal consultation under Stipulation IV.E.2. The

Indiana SHPO shall have thirty (30) days to respond to such a request.

2. If FHWA determines, in consultation with the Indiana SHPO, that project Modifications have the potential to cause adverse effects on aboveground resources, then FHWA shall re-open the Section 106 consultation process in accordance with the 36 C.F.R. part 800 regulations that are in effect on the date upon which this MOA has been signed by the last of all required and invited signatories.

- a) The re-opened consultation shall occur with regard only to:
 - (i) Adverse effects assessment, or avoidance, minimization or mitigation of adverse effects related to the project Modifications, for previously evaluated aboveground properties within the APE, or:
 - (ii) Identification, evaluation, adverse effects assessment, or avoidance, minimization or mitigation of adverse effects related to the project Modifications, for aboveground properties within the area added to the APE, as a result of the expansion of the APE.
- b) FHWA shall consult with the consulting parties listed in Attachment B and other parties, as appropriate, except to the extent that the public disclosure of information about resources is withheld or limited for archaeological resources.
- c) FHWA shall issue a new finding, supported either by revised documentation or by an update to the documentation, regardless of whether additional or different kinds of adverse effects have been found to result from the Modifications of the project.

F. Amendment

Any signatory to this MOA may request that it be amended, whereupon the parties shall consult to consider the proposed amendment. 36 C.F.R. 800.6(c)(7) shall govern the execution of any such amendment.

G. Duration

This MOA shall expire on December 31, 2030, unless amended and extended pursuant to Stipulation IV.F., or terminated pursuant to Stipulation IV.H. In such an event, FHWA shall so notify the parties to this MOA and, if it chooses to continue with the North Split Project, then it shall reinitiate review of the North Split Project in accordance with 36 C.F.R. Sections 800.3 through 800.7.

H. Termination

1. Any signatory to this MOA may terminate it by providing thirty (30) days notice to the other parties, provided that the parties shall consult during the period prior to termination to seek agreement on amendments or other actions that would avoid termination.
2. In the event of termination, FHWA shall comply with 36 C.F.R. Sections 800.3 through 800.7 with regard to the review of the North Split Project.

The execution of this MOA by FWHA, INDOT, the Council, the Indiana SHPO, the Benjamin Harrison Presidential Site, and Keep Indianapolis Beautiful, Inc., and the implementation of its terms evidence that FHWA has afforded the Council an opportunity to comment on the North Split Project and its effect on historic properties and that FHWA has taken into account the effects of the North Split Project on historic properties.

SIGNATORIES:

FEDERAL HIGHWAY ADMINISTRATION
INDIANA STATE HISTORIC PRESERVATION OFFICER
ADVISORY COUNCIL ON HISTORIC PRESERVATION

INVITED SIGNATORIES:

INDIANA DEPARTMENT OF TRANSPORTATION
BENJAMIN HARRISON PRESIDENTIAL SITE
KEEP INDIANAPOLIS BEAUTIFUL, INC.

(Optional) CONCURRING PARTIES:

- Indiana Landmarks
- National Park Service, Midwest Region
- Historic Urban Neighborhoods of Indianapolis
- Indianapolis Historic Preservation Commission
- Indianapolis Department of Metropolitan Development
- Indianapolis Department of Public Works
- Old Northside Neighborhood Association
- Saint Joseph Historic Neighborhood Association
- Chatham-Arch Neighborhood Association
- Lockerbie Square People's Club
- Windsor Park Neighborhood Association
- Holy Cross Neighborhood Association
- Cottage Home Neighborhood Association
- Cottage Home BOD
- Massachusetts Avenue Merchants Association
- Mayor's Neighborhood Advocate, Area 10
- Hendricks Commercial Properties
- NESCO Land Use

- Fountain Square Neighborhood Association
- John Boner Neighborhood Centers
- Patricia and Charles Perrin (property owners)
- North Square Neighborhood Association
- Luke Leising (property owner)
- American Institute of Architects
- Fletcher Plan Neighborhood Association
- Southeast Neighborhood Land Use Committee
- Martindale Brightwood Community Development Corporation
- Interstate Business Group
- National Trust for Historic Preservation
- Sandy Cummings (property owner)
- Old Near Westside/Ransom Place
- Riley Area Development Corporation
- Miami Tribe of Oklahoma
- Rethink 65/70 Coalition

**MEMORANDUM OF AGREEMENT
BETWEEN THE FEDERAL HIGHWAY ADMINISTRATION,
THE INDIANA DEPARTMENT OF TRANSPORTATION,
THE INDIANA STATE HISTORIC PRESERVATION OFFICER, AND
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION
REGARDING THE I-65/I-70 NORTH SPLIT
INTERCHANGE RECONSTRUCTION PROJECT
IN INDIANAPOLIS, CENTER TOWNSHIP, MARION COUNTY, INDIANA
DES. NOS. 1592385 and 1600808**

SIGNATORY

FEDERAL HIGHWAY ADMINISTRATION

By: _____
Mayela Sosa, Division Administrator

Date: _____

**MEMORANDUM OF AGREEMENT
BETWEEN THE FEDERAL HIGHWAY ADMINISTRATION,
THE INDIANA DEPARTMENT OF TRANSPORTATION,
THE INDIANA STATE HISTORIC PRESERVATION OFFICER, AND
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INTERCHANGE RECONSTRUCTION PROJECT
IN INDIANAPOLIS, CENTER TOWNSHIP, MARION COUNTY, INDIANA
DES. NOS. 1592385 and 1600808**

SIGNATORY

INDIANA STATE HISTORIC PRESERVATION OFFICER

By:  Date: 5-27-20
Beth K. McCord, Deputy State Historic Preservation Officer

**MEMORANDUM OF AGREEMENT
BETWEEN THE FEDERAL HIGHWAY ADMINISTRATION,
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INTERCHANGE RECONSTRUCTION PROJECT
IN INDIANAPOLIS, CENTER TOWNSHIP, MARION COUNTY, INDIANA
DES. NOS. 1592385 and 1600808**

SIGNATORY

ADVISORY COUNCIL ON HISTORIC PRESERVATION

By: 

John Fowler, Executive Director

Date: May 29, 2020

**MEMORANDUM OF AGREEMENT
BETWEEN THE FEDERAL HIGHWAY ADMINISTRATION,
THE INDIANA DEPARTMENT OF TRANSPORTATION,
THE INDIANA STATE HISTORIC PRESERVATION OFFICER, AND
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IN INDIANAPOLIS, CENTER TOWNSHIP, MARION COUNTY, INDIANA
DES. NOS. 1592385 and 1600808**

INVITED SIGNATORY

INDIANA DEPARTMENT OF TRANSPORTATION

By: 
Laura Hilden, Environmental Services Director

Date: 5/19/2020

**MEMORANDUM OF AGREEMENT
BETWEEN THE FEDERAL HIGHWAY ADMINISTRATION,
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IN INDIANAPOLIS, CENTER TOWNSHIP, MARION COUNTY, INDIANA
DES. NOS. 1592385 and 1600808**

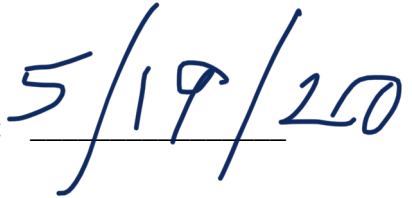
INVITED SIGNATORY

BENJAMIN HARRISON PRESIDENTIAL SITE

By:


Charles Hyde, President and CEO

Date:

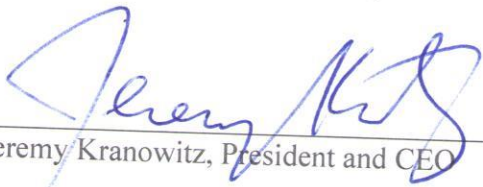


MEMORANDUM OF AGREEMENT
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THE INDIANA DEPARTMENT OF TRANSPORTATION,
THE INDIANA STATE HISTORIC PRESERVATION OFFICER, AND
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IN INDIANAPOLIS, CENTER TOWNSHIP, MARION COUNTY, INDIANA
DES. NOS. 1592385 and 1600808

INVITED SIGNATORY

KEEP INDIANAPOLIS BEAUTIFUL, INC.

By:



Jeremy Kranowitz, President and CEO

Date:

5/20/2020

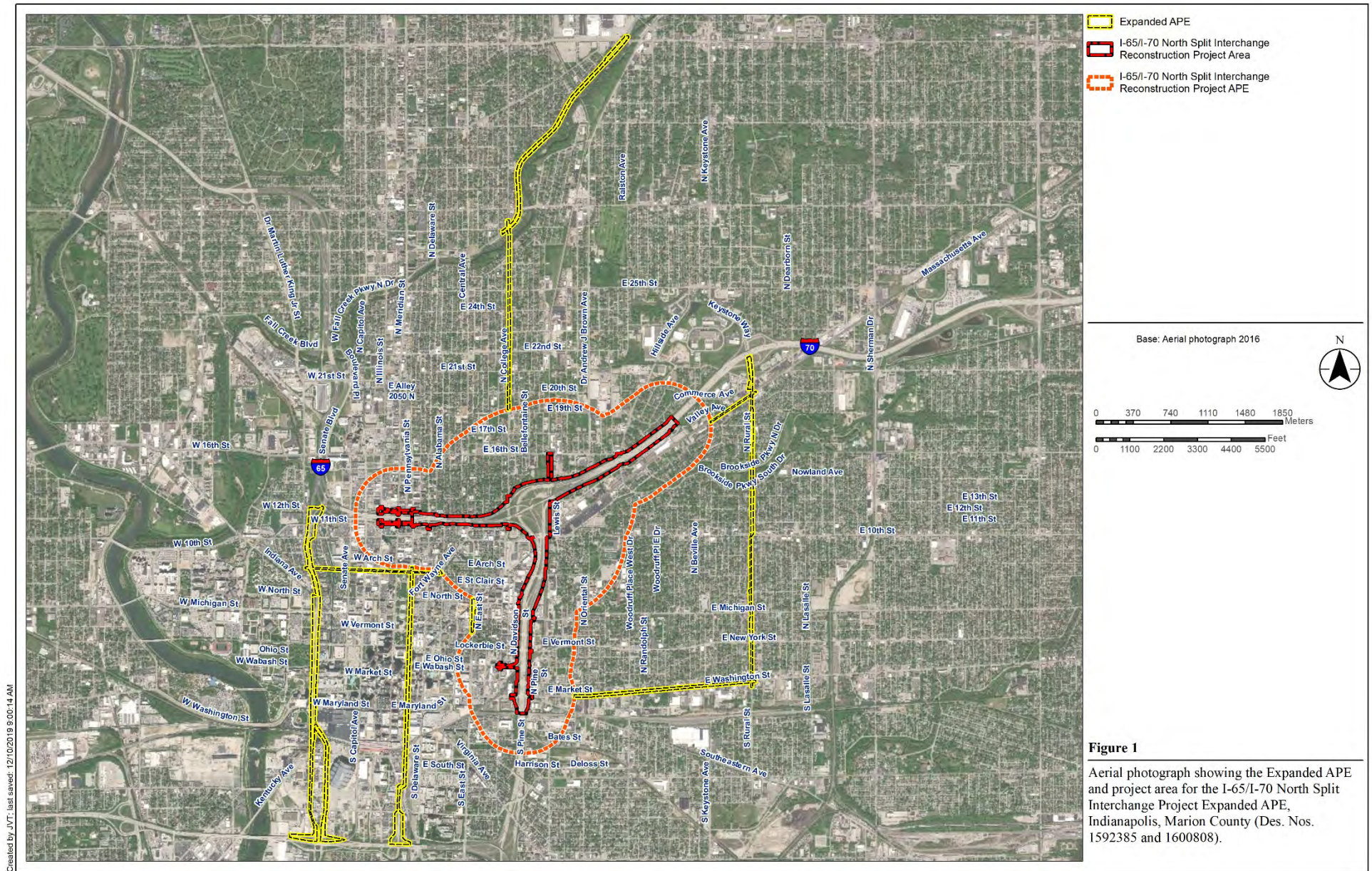
**MEMORANDUM OF AGREEMENT
BETWEEN THE FEDERAL HIGHWAY ADMINISTRATION,
THE INDIANA DEPARTMENT OF TRANSPORTATION,
THE INDIANA STATE HISTORIC PRESERVATION OFFICER, AND
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INTERCHANGE RECONSTRUCTION PROJECT
IN INDIANAPOLIS, CENTER TOWNSHIP, MARION COUNTY, INDIANA
DES. NOS. 1592385 and 1600808**

Optional: **CONCURRING PARTY**

By: _____
Name, Title

Date: _____

Attachment A – Area of Potential Effects Map



Created by JVT, last saved: 12/10/2019 9:00:14 AM

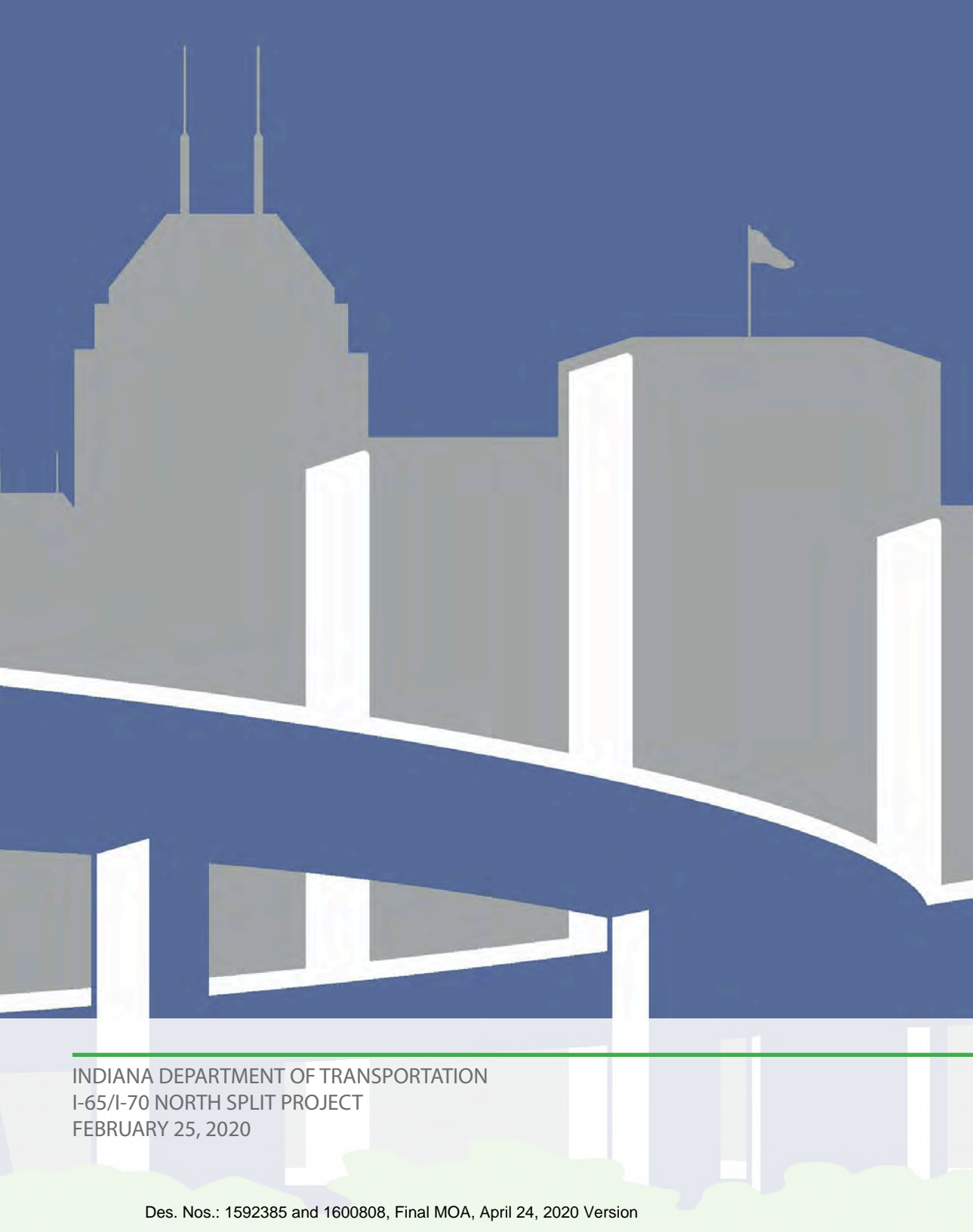
Attachment B – Consulting Party List

Organization	Contact Name	Title	E-Mail
IDNR-Division of Historic Preservation and Archaeology	Chad Slider	Deputy State Historic Preservation Officer	CSlider@dnr.IN.gov
IDNR-Division of Historic Preservation and Archaeology	Wade Tharp	Archaeologist	WTharp1@dnr.IN.gov
Indiana Landmarks	Mark Dollase	Vice President of Preservation Services	mdollase@indianalandmarks.org
Indiana Landmarks	Marsh Davis	President	mdavis@indianalandmarks.org
National Park Service, Midwest Region	Alesha Cerny	Historian/Cultural Resources	alesha_cerny@nps.gov
Historic Urban Neighborhoods of Indianapolis	Marjorie Kienle		mlkienle@indy.rr.com
Historic Urban Neighborhoods of Indianapolis	Garry Chilluffo		garry@chilluffo.com
Historic Urban Neighborhoods of Indianapolis/Indiana Landmarks	Chad Lethig	Secretary/Indianapolis Preservation Coordinator	clethig@indianalandmarks.org
Indianapolis Historic Preservation Commission/City of Indianapolis	Meg Purnsley	Administrator	Meg.Purnsley@indy.gov
Indianapolis Department of Metropolitan Development	Brad Beaubien	Principal Planner	Brad.Beaubien@indy.gov
Indianapolis Department of Public Works	Melody Park	Chief Engineer	Melody.Park@indy.gov
Old Northside Neighborhood Association	Garry Elder	President	eldergarry@sbcglobal.net
Old Northside Neighborhood Association	Nancy Inui		nsinui@ameritech.net
Old Northside Neighborhood Association	Travis Barnes		travis@hoteltangowhiskey.com
Benjamin Harrison Presidential Site	Charles A. Hyde	President and CEO	chyde@bhpsite.org
St. Joseph Historic Neighborhood Association	Mark Godley	President	mgodley@chestnut.org
Chatham Arch Neighborhood Association	Ken Avidor	Board Member	ken.avidor@gmail.com

Organization	Contact Name	Title	E-Mail
Lockerbie Square People's Club	Jeffrey Christoffersen		jeff@thechristoffersens.com
Windsor Park Neighborhood Association, Inc.	Jen Eamon	President	wearewindsorpark@gmail.com
Holy Cross Neighborhood Association	Jen Higginbotham		Jen_Higginbotham@yahoo.com
Holy Cross Neighborhood Association	Pat Dubach		pdubach@redev.net
Holy Cross Neighborhood Association	Kelly Wensing		kellywensing@gmail.com
Holy Cross Neighborhood Association	Jason Rowley		jrowley@hanson-inc.com
Cottage Home Neighborhood Association	Crystal Rehder	President, Cottage Home Neighborhood Indianapolis	cottagehomeneighborhood@gmail.com
Cottage Home BOD	Jim Jessee		jamesjessee102@gmail.com
Massachusetts Avenue Merchants Association	Meg Storrow		storrow@storrowkinsella.com
Mayor's Neighborhood Advocate, Area 10	Ruth Morales		ruth.morales@indy.gov
Hendricks Commercial Properties	Gavin Thomas	Vice President of Development	Gavin.Thomas@hendricksgroup.net
NESCO Land Use	David Hittle		davidhittle@gmail.com
Fountain Square Neighborhood Association	Desiree Calderella	President	fsna1835@gmail.com
John Boner Neighborhood Centers	Jon Berg	IndyEast Promise Zone Director	jberg@jbncenters.org
Property Owners	Patricia and Charles Perrin		pperrin@indy.rr.com
North Square Neighborhood Association	Jordan Ryan		jordanblairryan@gmail.com
Keep Indianapolis Beautiful, Inc.	Joe Jarzen	Vice President of Program Strategy	jjarzen@kibi.org
Property Owner	Luke Leising		luke@guidondesign.com
American Institute of Architects	Mark Beebe		mbeebe@lancerbeebe.com

Organization	Contact Name	Title	E-Mail
Fletcher Place Neighborhood Association, Inc.	Glenn Blackwood		glennblackwood@gmail.com
Southeast Neighborhood Land Use Committee	Jim Lingenfelter		jimlingenfelter@five2fivedesign.com
Martindale Brightwood Community Development Corporation	Amina Pierson	Executive Director	apierson@mbcdc.org
Interstate Business Group	Paul Knapp		pknapp@yandl.com
National Trust for Historic Preservation	Betsy Merritt	Deputy General Council	emerritt@savingplaces.org
Advisory Council on Historic Preservation	Sarah Stokely	Program Analyst	sstokely@achp.gov
Advisory Council on Historic Preservation	Mandy Ranslow	FHWA Liaison/Program Analyst	mranslow@achp.gov
St. Joseph Neighborhood Property Owner	Sandy Cummings		sandycummings2003@yahoo.com
Old Near Westside/Ransom Place	Denise Halliburton		d_halliburton@hotmail.com
Old Northside Neighborhood Association	Hilary Barnes		hitalyor09@gmail.com
Riley Area Development Corporation	Chelsea Humble	North Mass Program Manager	chelsea.humble@rileyarea.org
Tribes			
Miami Tribe of Oklahoma	Diane Hunter	THPO	dhunter@miamination.com

Attachment C – North Split Aesthetic Design Guidelines



ATTACHMENT 6-1 NORTH SPLIT *AESTHETIC DESIGN GUIDELINES*



INDIANA DEPARTMENT OF TRANSPORTATION
I-65/I-70 NORTH SPLIT PROJECT
FEBRUARY 25, 2020

Request for Proposals
Technical Provisions
Addendum #3



TABLE OF CONTENTS

DESIGN GUIDELINES

- 03 Color
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- 14 Surfacing
- 16 Lighting
- 19 Signage
- 22 Traffic Barriers
- 23 Sound Barriers
- 24 Fencing
- 25 Bridge Openings
- 38 Landscape

COLOR

CHART:

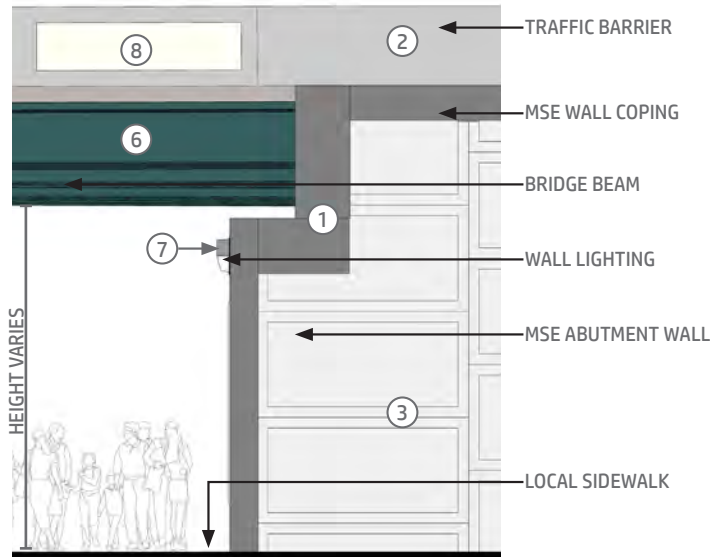
APPLICATION:

<div>Color A1:</div> <div>RGB: 128, 128, 128</div>	<div>Color A2:</div> <div>RGB: 204, 204, 204</div>	<div>Color A3:</div> <div>RGB: 240, 240, 240</div>	<div>CONCRETE (A)</div> <ul style="list-style-type: none"> •Bridge Monuments, Piers & Caps •Bridge Rails & Parapets •Sign Structure Supports •Retaining Walls •Bridge Abutment Walls
<div>Color B1:</div> <div>RGB: 187, 179, 159</div>	<div>Color B2:</div> <div>RGB: 252, 219, 181</div>		<div>CONCRETE (B)</div> <ul style="list-style-type: none"> •Noise Barrier Panels, Caps & Posts
<div>Color C:</div> <div>RGB: 55, 95, 95</div>			<div>CONCRETE & STEEL (C)</div> <ul style="list-style-type: none"> •Bridge Beam/Girder (Color shall be applied at locations where metallizing is not required)
<div>Color D:</div> <div>RGB: 65, 64, 66</div>			<div>METALS (D)</div> <ul style="list-style-type: none"> •Ornamental Lights •Sign Lettering •Noise Barrier Posts
<div>Color E:</div> <div>RGB: 219, 195, 135</div>			<div>ACCENT (E)</div> <ul style="list-style-type: none"> •Wall Detailing •Corner Monument Detailing •Relief Texture

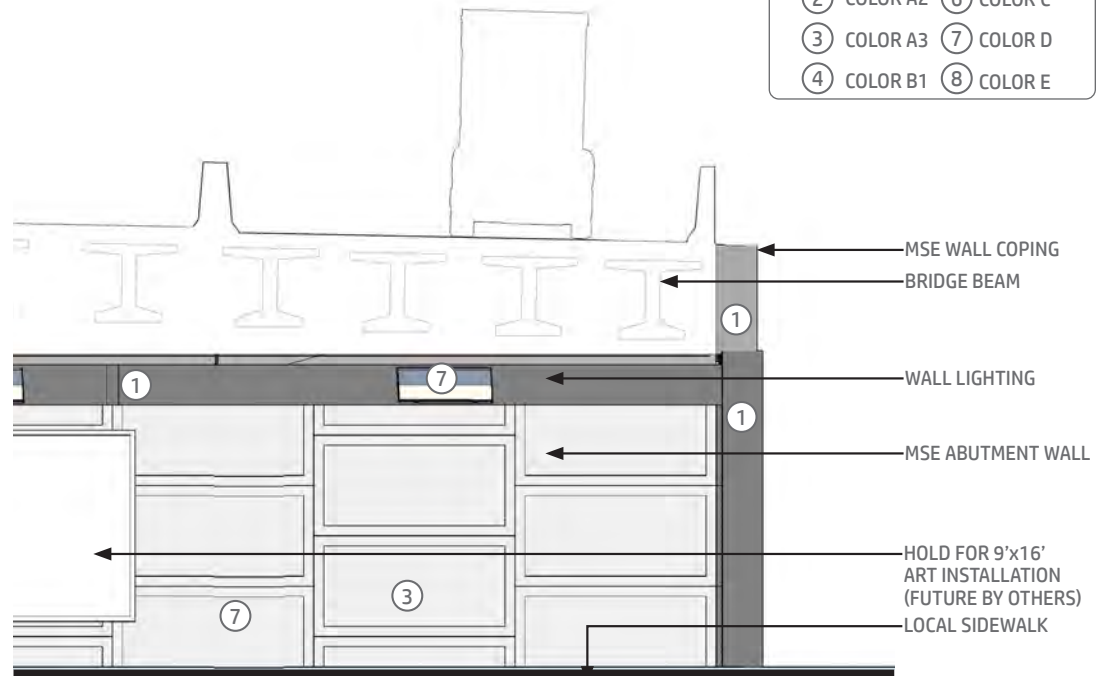
RGB STANDS FOR: RED (R) GREEN (G) BLUE (B)

STANDARD ABUTMENT

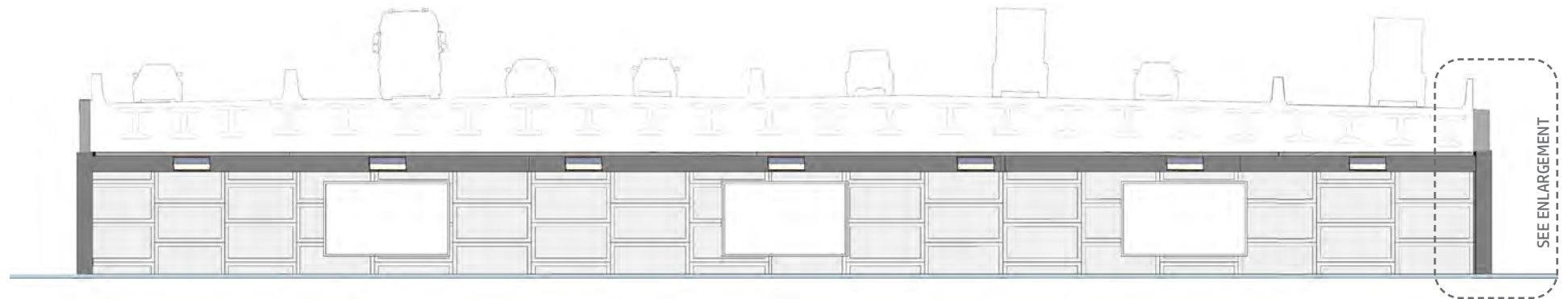
NOTE: Number of down-lighting and column lighting shall be determined in accordance with the technical provisions and project standards.



END ELEVATION (TYPICAL)



CROSS SECTION ENLARGEMENT (TYPICAL)



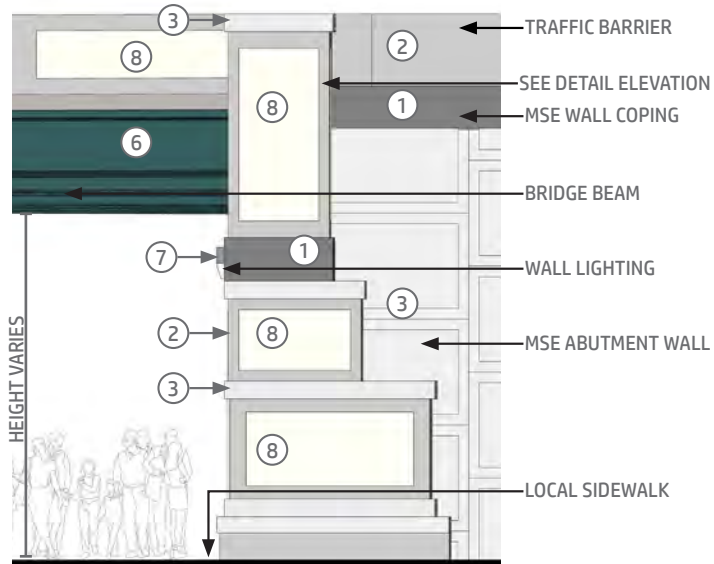
CROSS SECTION ELEVATION (TYPICAL)

MINOR MONUMENT ABUTMENT

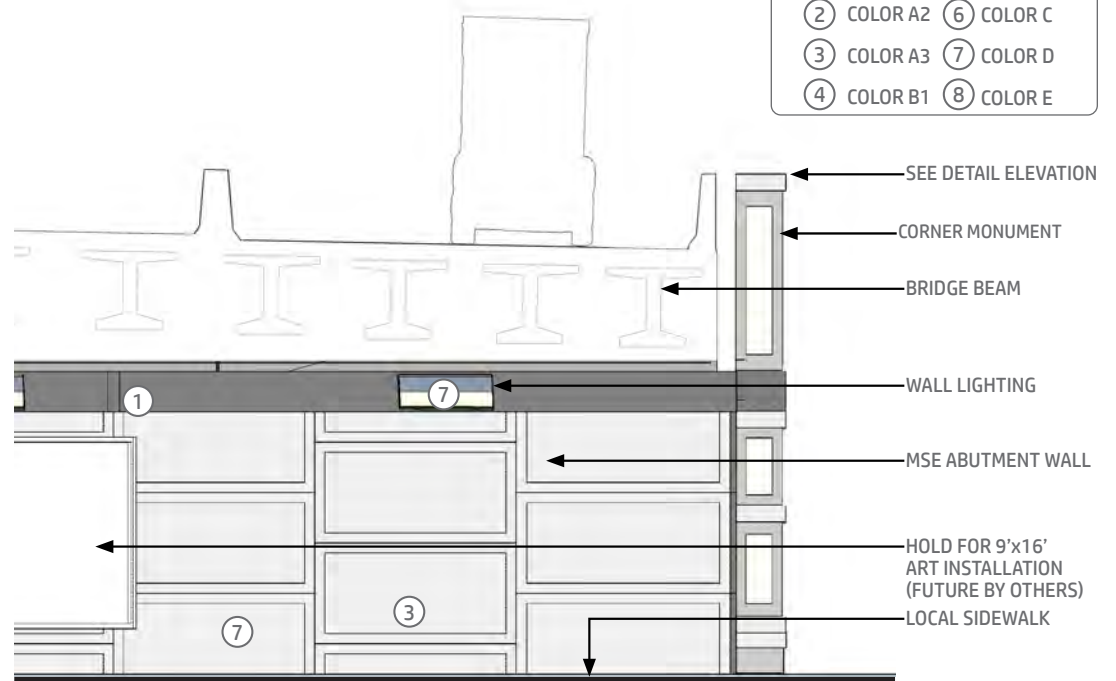
NOTE: Number of down-lighting and column lighting shall be determined in accordance with the technical provisions and project standards.

COLOR LEGEND: SEE COLOR SECTION

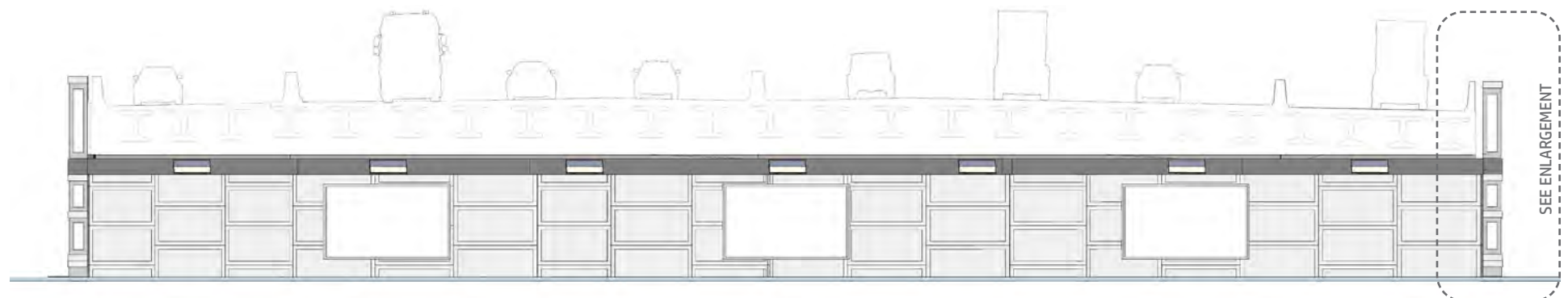
① COLOR A1	⑤ COLOR B2
② COLOR A2	⑥ COLOR C
③ COLOR A3	⑦ COLOR D
④ COLOR B1	⑧ COLOR E



END ELEVATION (TYPICAL)



CROSS SECTION ENLARGEMENT (TYPICAL)



CROSS SECTION ELEVATION (TYPICAL)

SCHEMATIC DETAILS

MINOR MONUMENT ABUTMENT

COLOR LEGEND: SEE COLOR SECTION

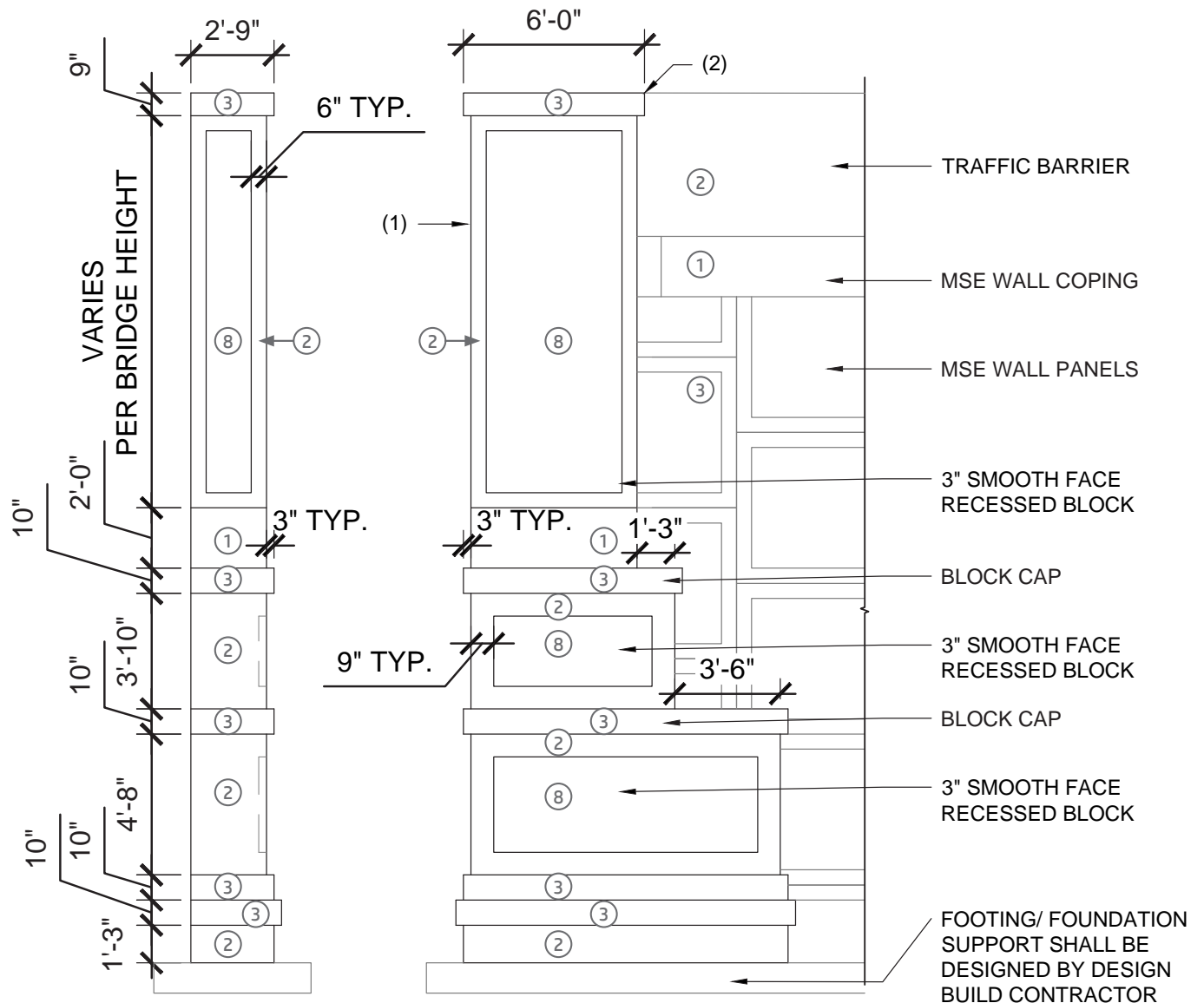
① COLOR A1	⑤ COLOR B2
② COLOR A2	⑥ COLOR C
③ COLOR A3	⑦ COLOR D
④ COLOR B1	⑧ COLOR E

LEGEND:

(1) MONUMENT FACE SHALL BE FLUSH WITH FRONT FACE OF MSE ABUTMENT WALL PRECAST COPING

(2) CAP SHALL BE FLUSH WITH TRAFFIC BARRIER.

NOTE: STRUCTURAL CONCRETE AND REINFORCING DESIGN AND DETAILING REQUIREMENTS SHALL BE THE RESPONSIBILITY OF THE DESIGN-BUILD CONTRACTOR IN ACCORDANCE WITH THE TECHNICAL PROVISIONS AND PROJECT STANDARDS.



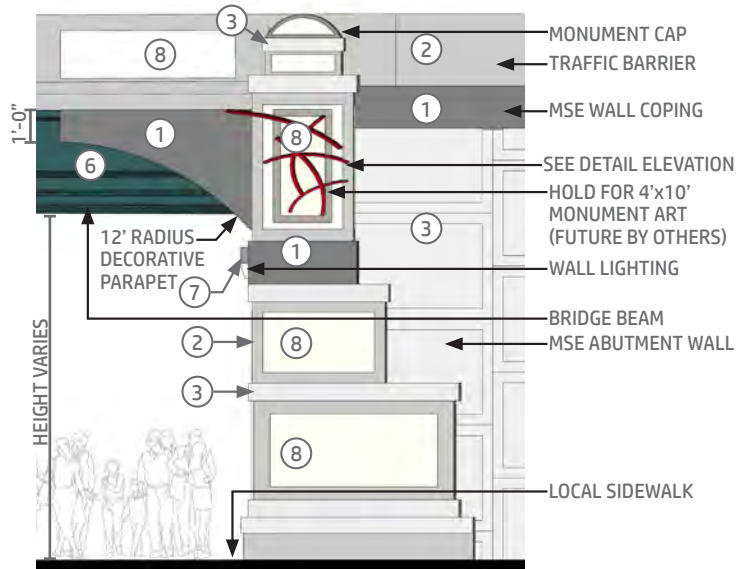
DETAIL ELEVATION (TYPICAL)

MAJOR MONUMENT ABUTMENT

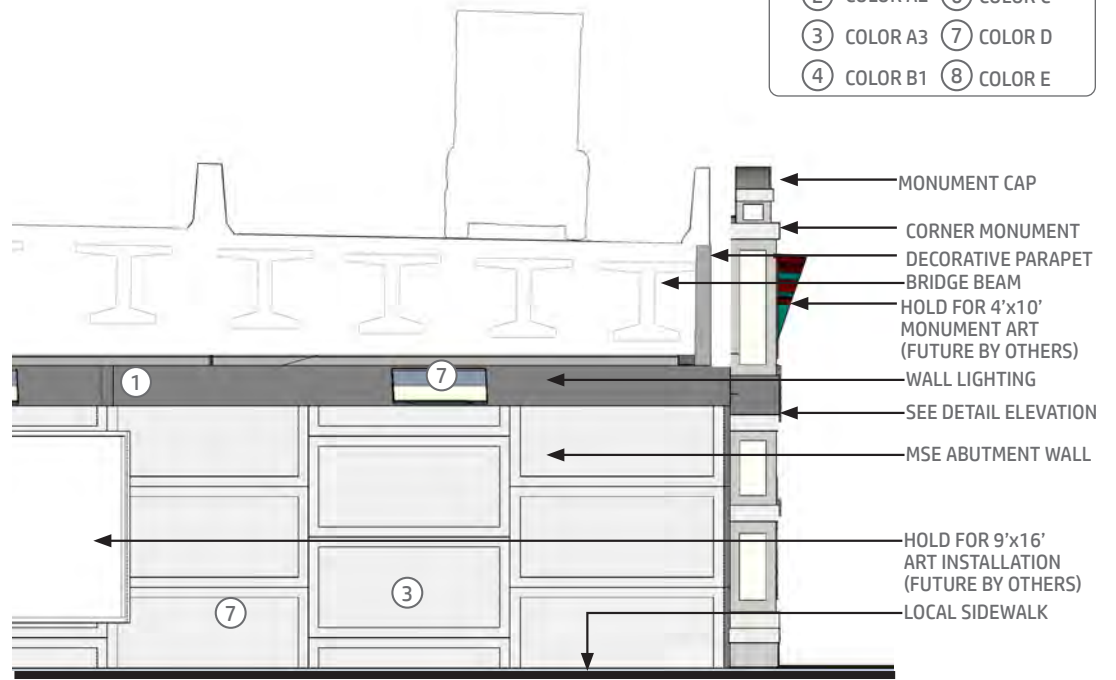
NOTE: Number of down-lighting and column lighting shall be determined in accordance with the technical provisions and project standards.

COLOR LEGEND: SEE COLOR SECTION

① COLOR A1	⑤ COLOR B2
② COLOR A2	⑥ COLOR C
③ COLOR A3	⑦ COLOR D
④ COLOR B1	⑧ COLOR E



END ELEVATION (TYPICAL)



CROSS SECTION ENLARGEMENT (TYPICAL)



CROSS SECTION ELEVATION (TYPICAL)

SCHEMATIC DETAILS

MAJOR MONUMENT ABUTMENT

COLOR LEGEND: SEE COLOR SECTION

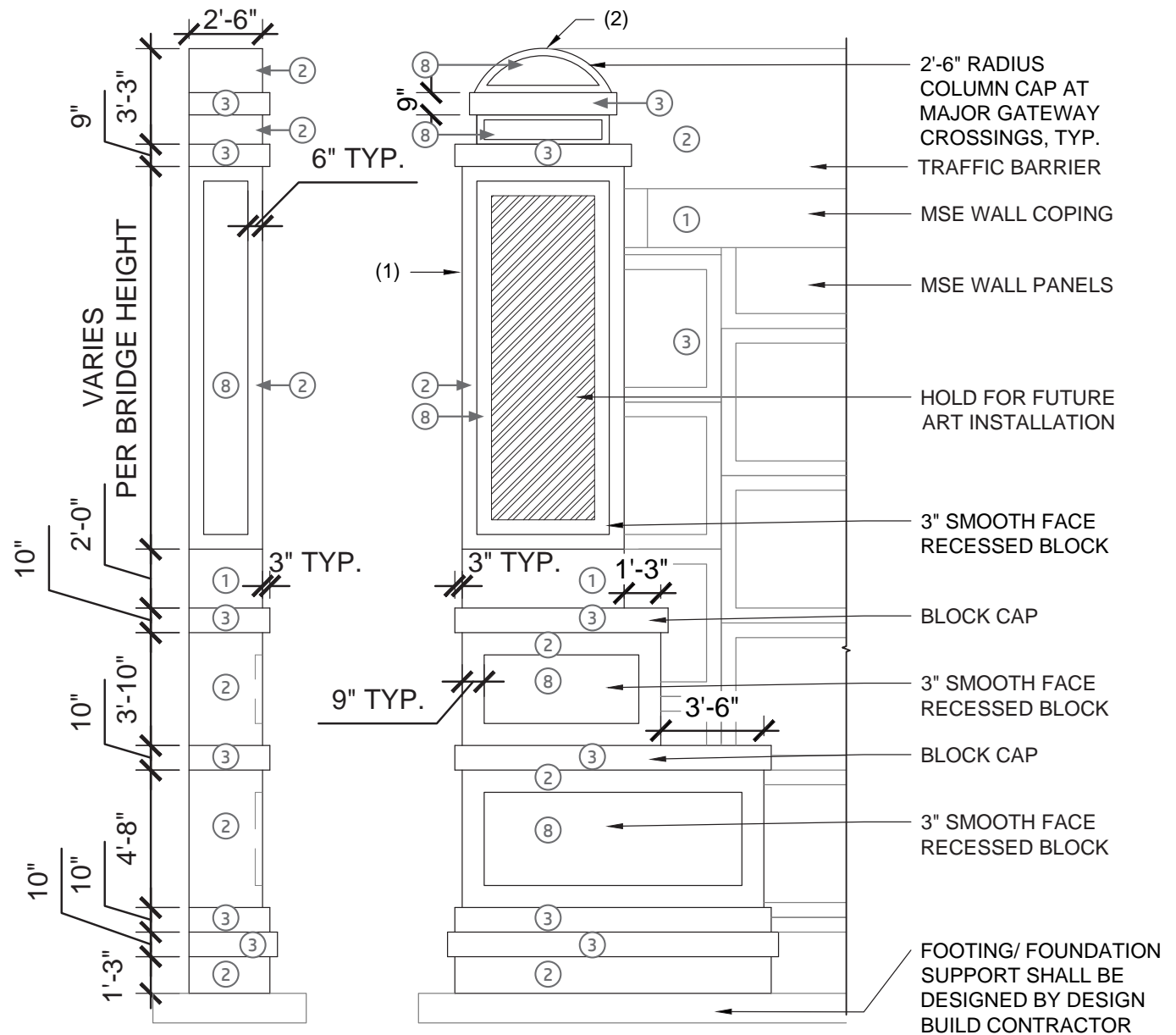
- | | |
|------------|------------|
| ① COLOR A1 | ⑤ COLOR B2 |
| ② COLOR A2 | ⑥ COLOR C |
| ③ COLOR A3 | ⑦ COLOR D |
| ④ COLOR B1 | ⑧ COLOR E |

LEGEND:

(1) MONUMENT FACE SHALL BE FLUSH WITH FRONT FACE OF MSE ABUTMENT WALL PRECAST COPING.

(2) CAP SHALL BE FLUSH WITH TRAFFIC BARRIER.

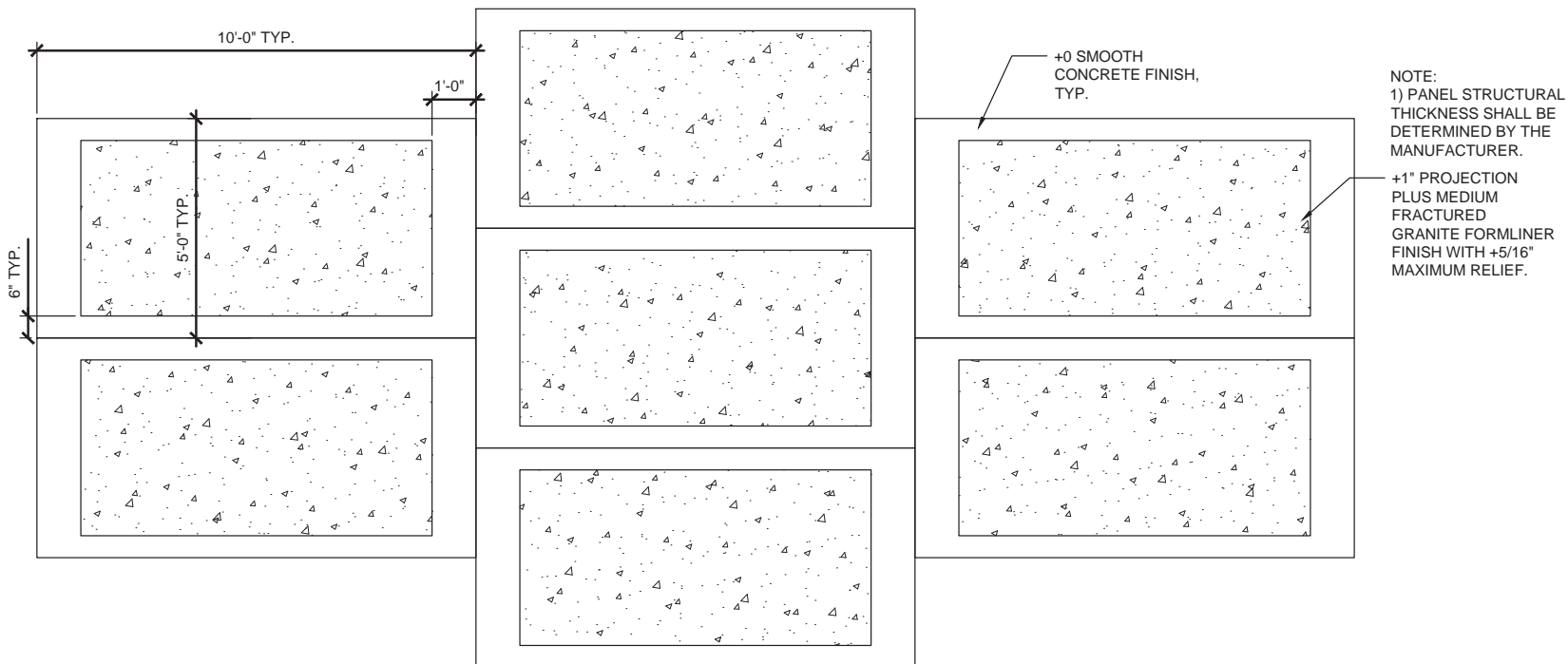
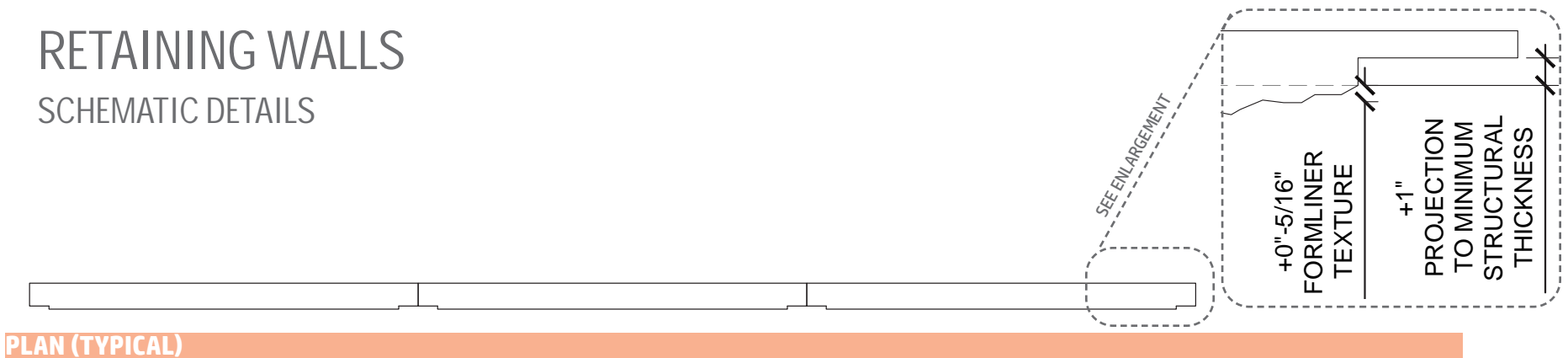
NOTE: STRUCTURAL CONCRETE AND REINFORCING DESIGN AND DETAILING REQUIREMENTS SHALL BE THE RESPONSIBILITY OF THE DESIGN-BUILD CONTRACTOR IN ACCORDANCE WITH THE TECHNICAL PROVISIONS AND PROJECT STANDARDS.



DETAIL ELEVATION (TYPICAL)

RETAINING WALLS

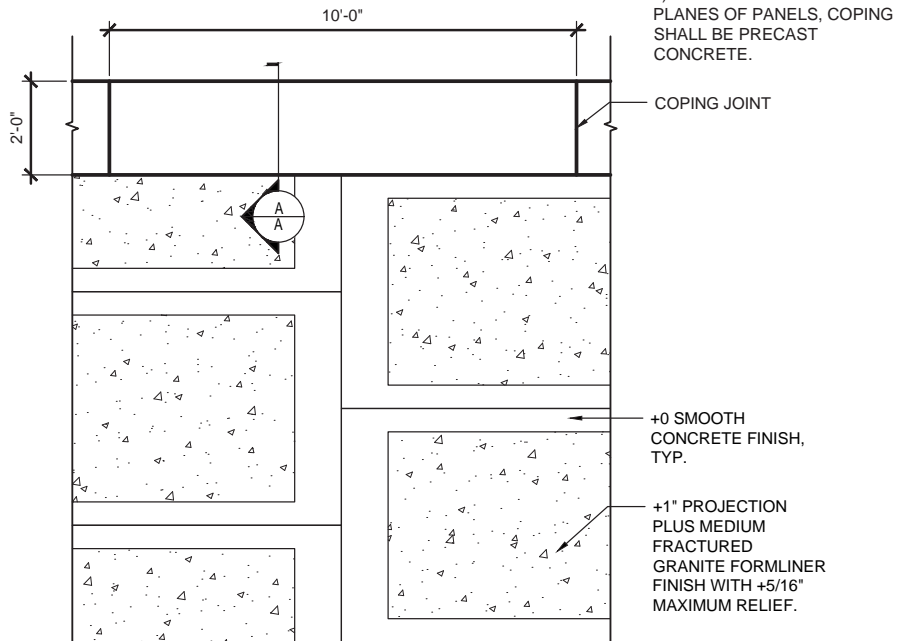
SCHEMATIC DETAILS



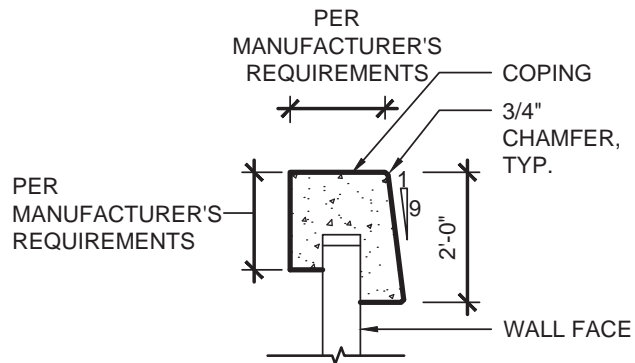
ELEVATION (TYPICAL)

RETAINING WALLS

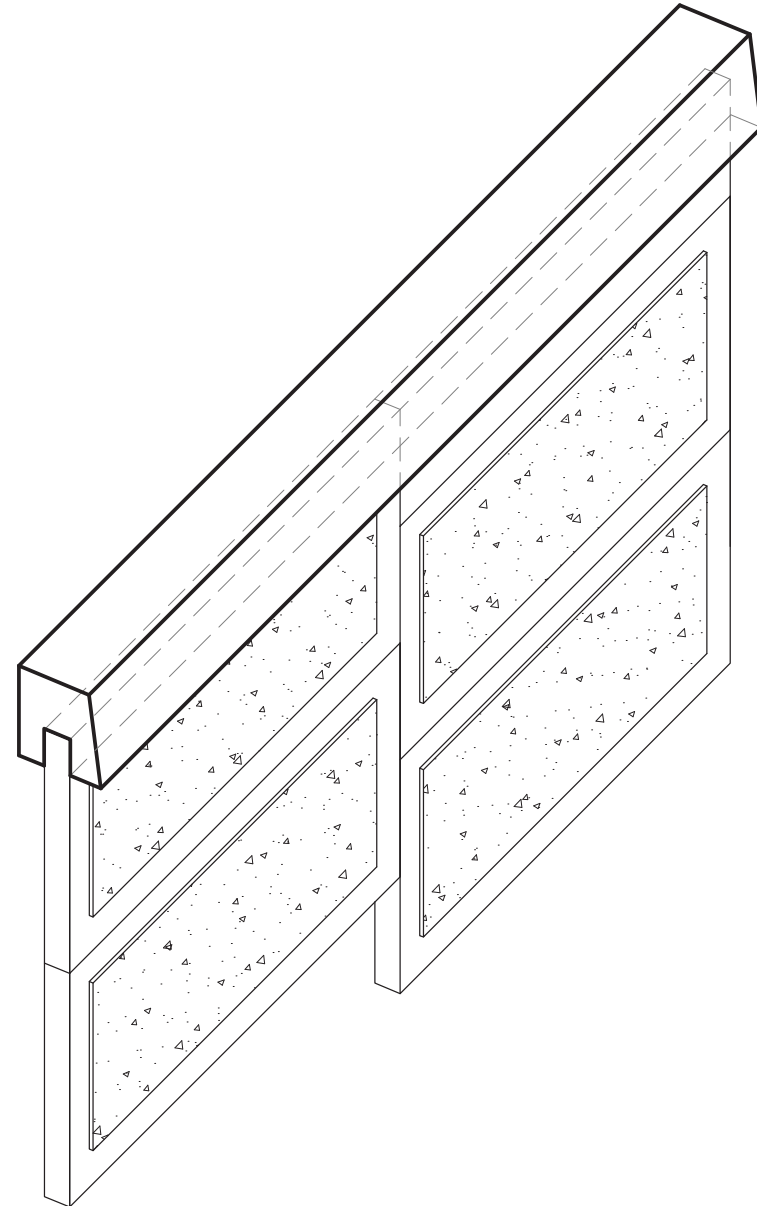
SCHEMATIC DETAILS



ELEVATION COPING WITH PANEL(TYPICAL)

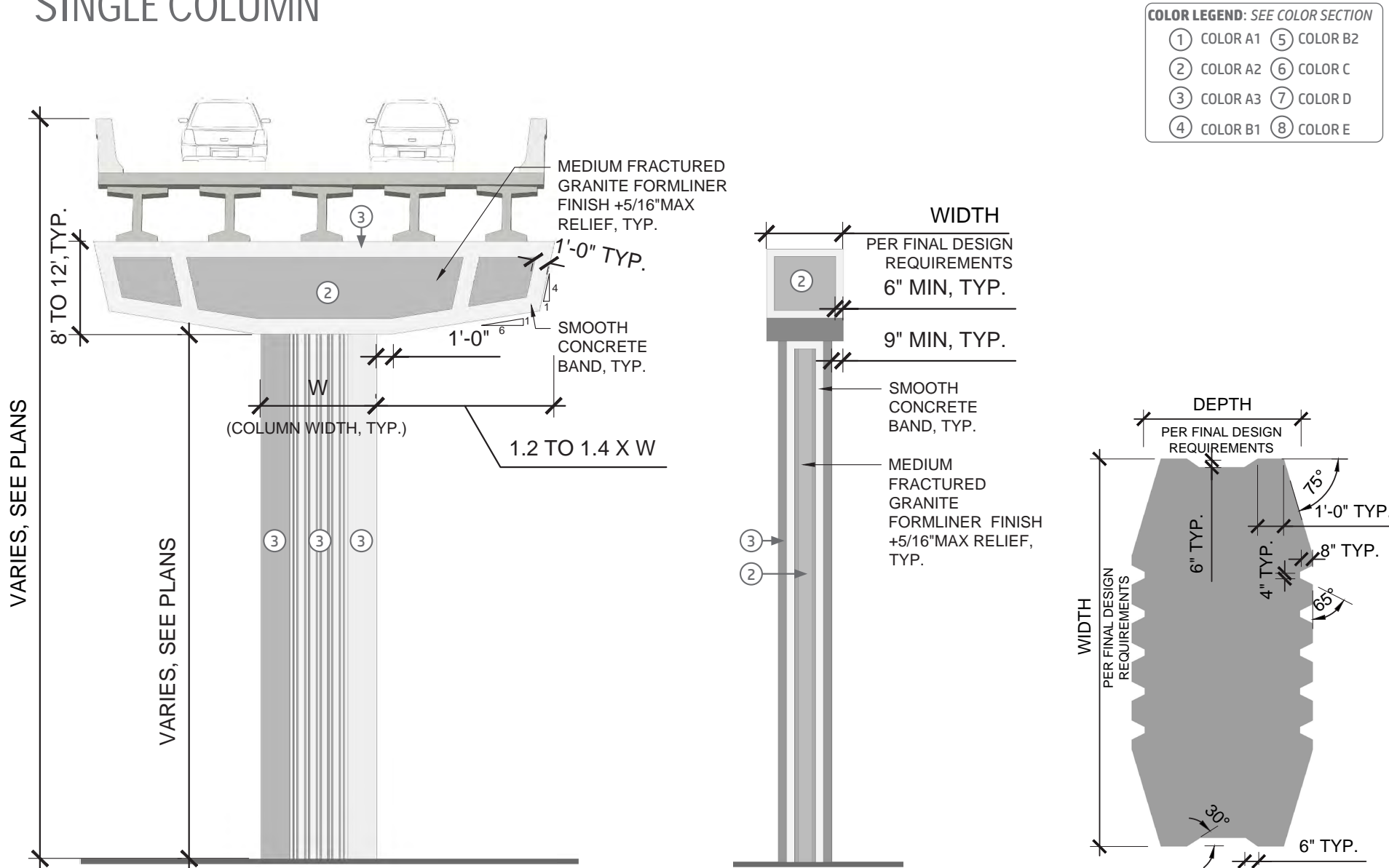


SECTION A- COPING (TYPICAL)



ISOMETRIC-COPING WITH PANEL (TYPICAL)

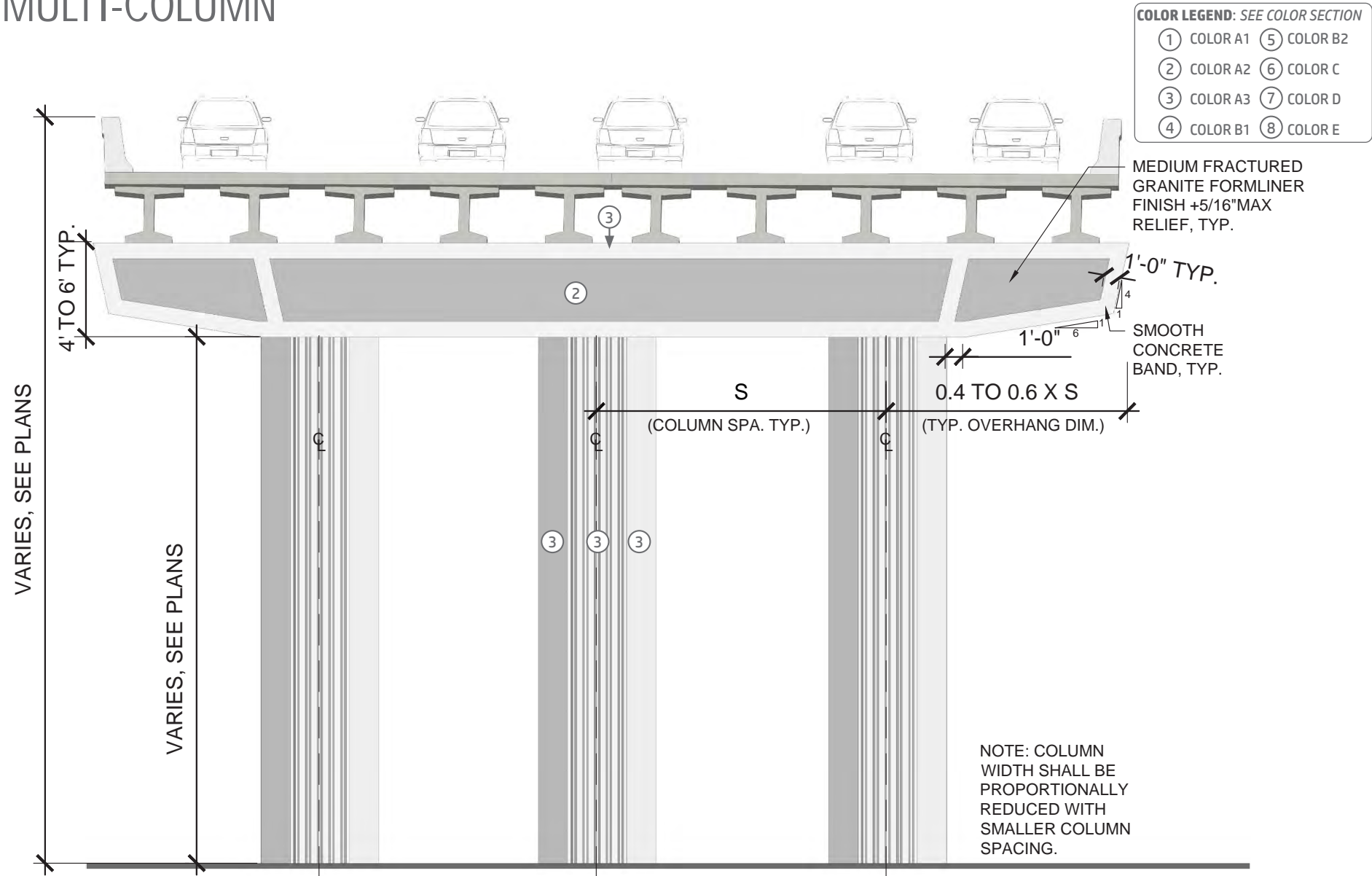
SINGLE COLUMN



FRONT & SIDE ELEVATION MAXIMUM HEIGHT (TYPICAL)

COLUMN CROSS SECTION (TYPICAL)

MULTI-COLUMN

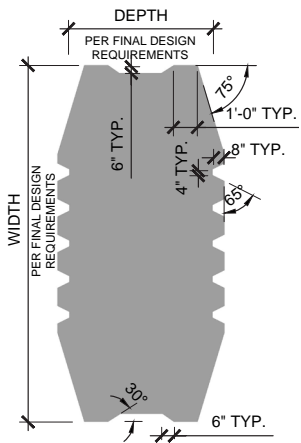


FRONT ELEVATION (TYPICAL)

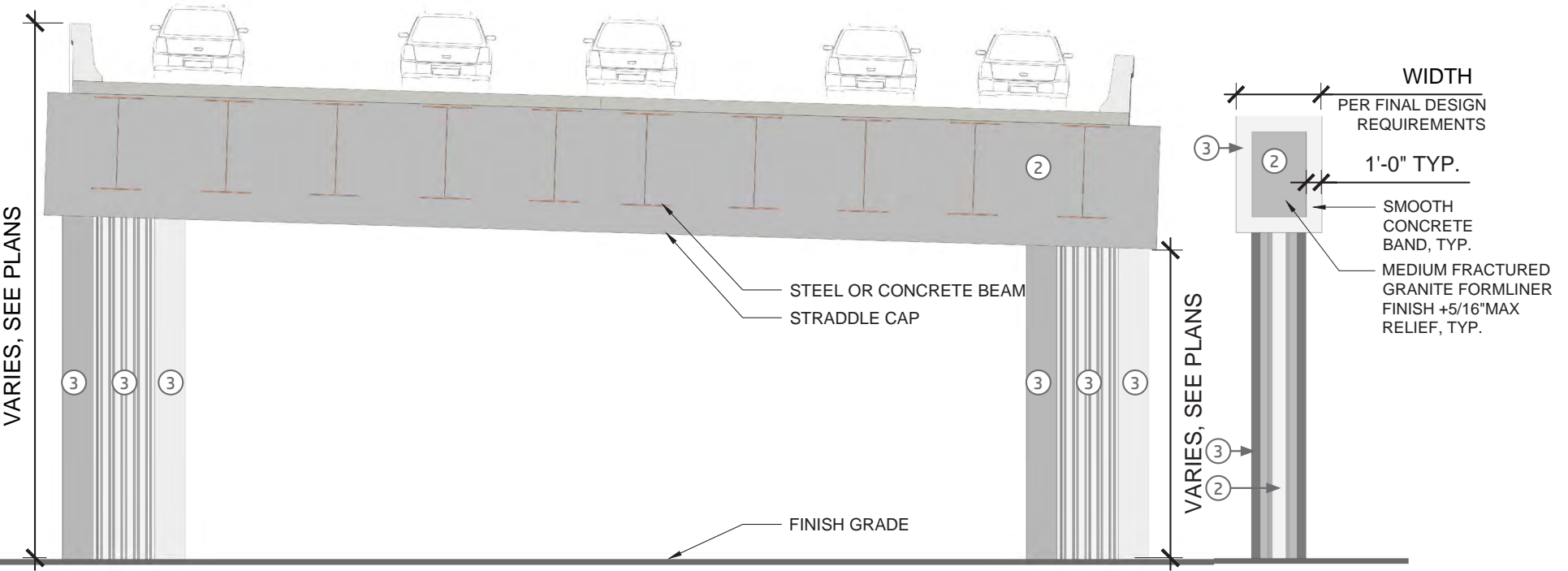
STRADDLE BENT

RECTANGULAR

- COLOR LEGEND: SEE COLOR SECTION
- | | |
|------------|------------|
| ① COLOR A1 | ⑤ COLOR B2 |
| ② COLOR A2 | ⑥ COLOR C |
| ③ COLOR A3 | ⑦ COLOR D |
| ④ COLOR B1 | ⑧ COLOR E |



COLUMN CROSS SECTION (TYPICAL)



VARIATION 1: FRONT & SIDE ELEVATION (TYPICAL)

MAJOR GATEWAY SURFACING SUMMARY

- A consistent 3'-0" wide asphalt block paver band shall be constructed immediately adjacent to the back of curb and parallel to the roadway. Materials shall be a "ground finish". Color shall resemble Hanover A80044 or approved equal.
- Asphalt block paver bands (or other vehicular-rated paver type) shall be constructed perpendicular to the roadway. Paver bands are to be 3'-0" wide at 19'-0" O.C. maximum. Materials should be a "ground finish". Color shall resemble Hanover A80046 or approved equal.
- Standard concrete pavement will separate each perpendicular asphalt paver band. All concrete surfaces shall be scored as indicated on the following drawings and receive a standard broom finish.



WALKWAY SURFACE

TREATMENT PATTERNS



**RUNNING BOND
PATTERN**



SAW CUT JOINTS



COLOR BANDING



ACCENT COLORS



HEAVY DUTY

MAJOR GATEWAY SURFACING SCHEMATIC DETAILS

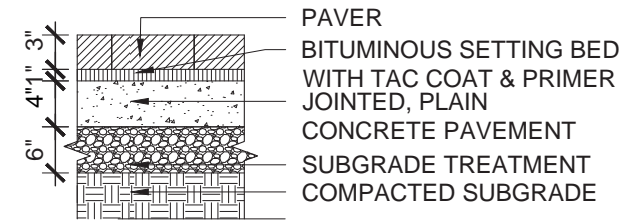
Major Gateway Pedestrian Surfaces

In addition to the Roadway Surfaces and the Minor Gateway and Standard Pedestrian Surfaces, Major Gateway Pedestrian Surface areas utilize both concrete and specialty pavement treatments to highlight and emphasize the pedestrian environment.

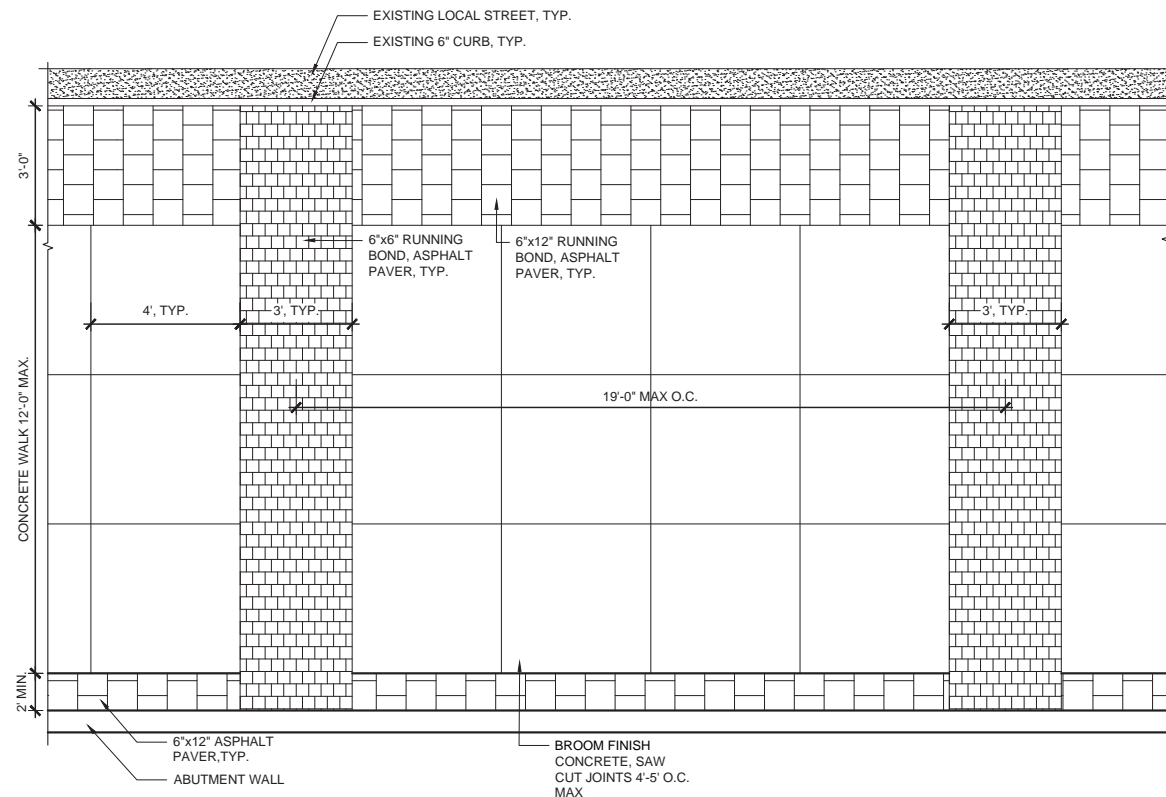
Major Gateway treatments occur at New York Street, Central Avenue, College Avenue, Alabama Street, 10th Street, Commerce Avenue, Michigan Street, and Washington Street.

Major Gateway Pedestrian Surfaces: Recommended Manufacturers

- Hanover Architectural Products
- Belgard Pavers & Hardscapes
- Or Approved Equal



SURFACING SECTION VIEW (TYPICAL)



SURFACING PLAN VIEW (TYPICAL)

LIGHTING

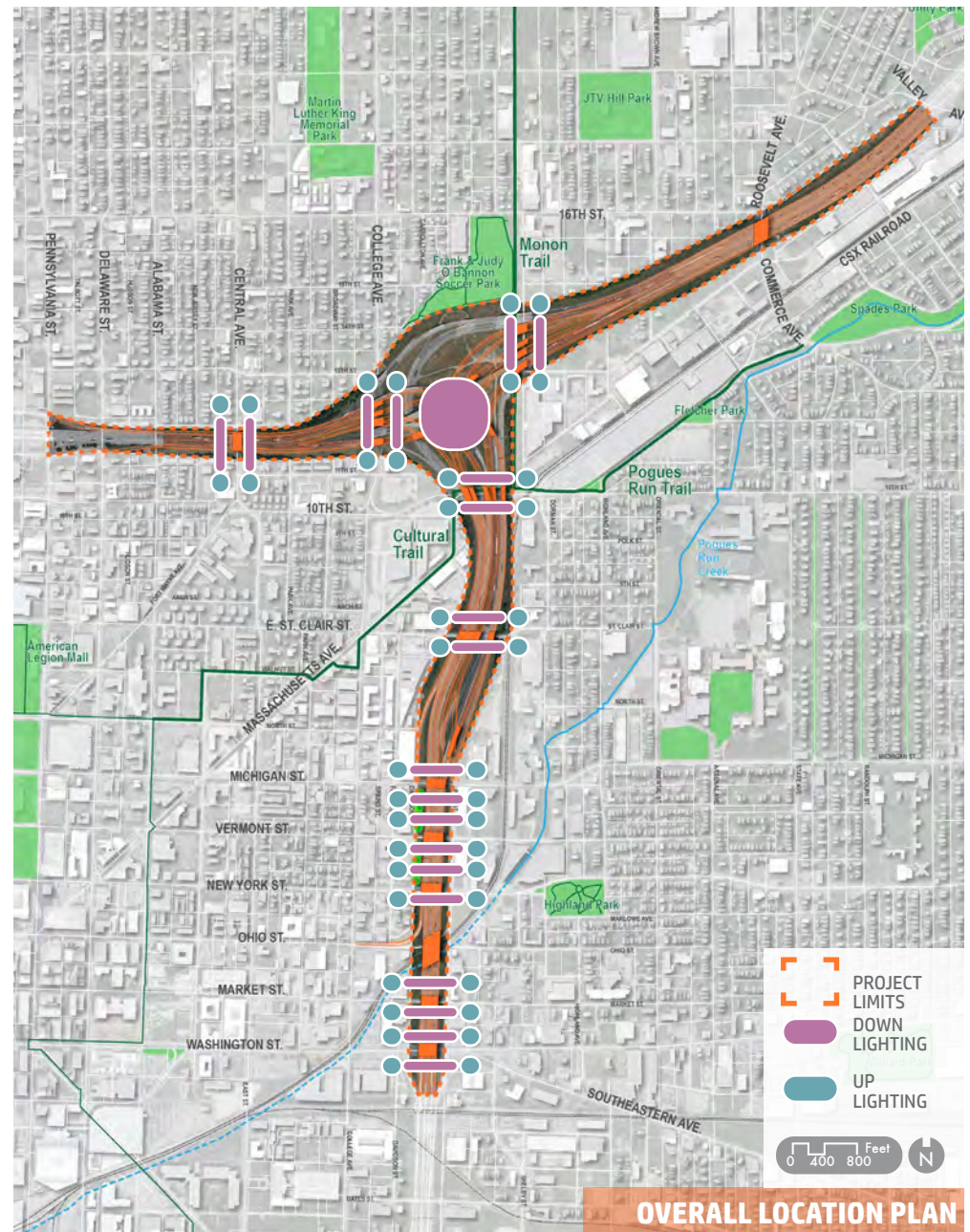
Design Summary

The recommended lighting types include two distinct treatment options that respond to the needs of vehicles, pedestrians, bicyclists and adjacent property owners. These two lighting types shall include:

1. Down Lighting
2. Up Lighting

Each are further discussed on the following pages.

NOTE: Down Lighting in underpass must meet pedestrian lighting standards.

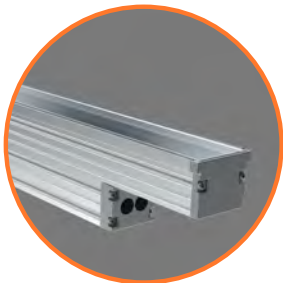


DOWN LIGHTING

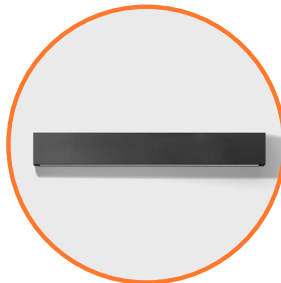
Wall Mounted:

Bar Style down lighting shall be surface mounted to abutment wall coping to achieve pedestrian level lighting requirements. Mock-up shall be required for approval.

APPROPRIATE FIXTURES



**TARGETTI | JEDI
COMPACT IP67 INTEGRAL**



**BEGA | LED
WALL WASHER**



**LED LINEAR | XOOLUM
IP67**



WALL MOUNTED LIGHT

Column Mounted:

Down lighting shall be mounted to the pier cap. Aesthetic light wash shall be directed vertically down the column and horizontally across the bridge underside.

APPROPRIATE FIXTURES



**BEGA | LED
WALL WASHER**



**BEGA | LED
COMPACT FLOOD**



SELUX | AVANZA



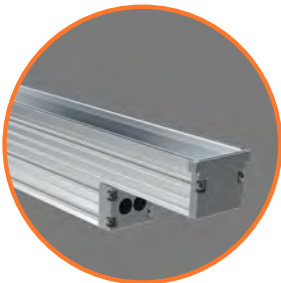
COLUMN MOUNTED LIGHT

UP LIGHTING

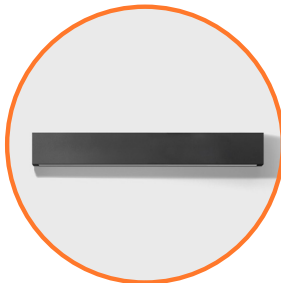
BAR LIGHT:

Bar style up lighting shall be recess mounted to monument for tamper resistance and achieve uniform aesthetic lighting wash across entire monument. Mock-up shall be required for approval.

APPROPRIATE FIXTURES



**TARGETTI | JEDI
COMPACT IP67 INTEGRAL**



**BEGA | LED
WALL WASHER**



**LED LINEAR | XOOLUM
IP67**

SPOT LIGHT:

Spot style up lighting shall be ground mounted in a concrete base and achieve focused aesthetic lighting wash at location of future art in upper third of monument. Mock-up shall be required for approval.

APPROPRIATE FIXTURES



TERON CIMMARON LED



HOLOPHANE PSLED



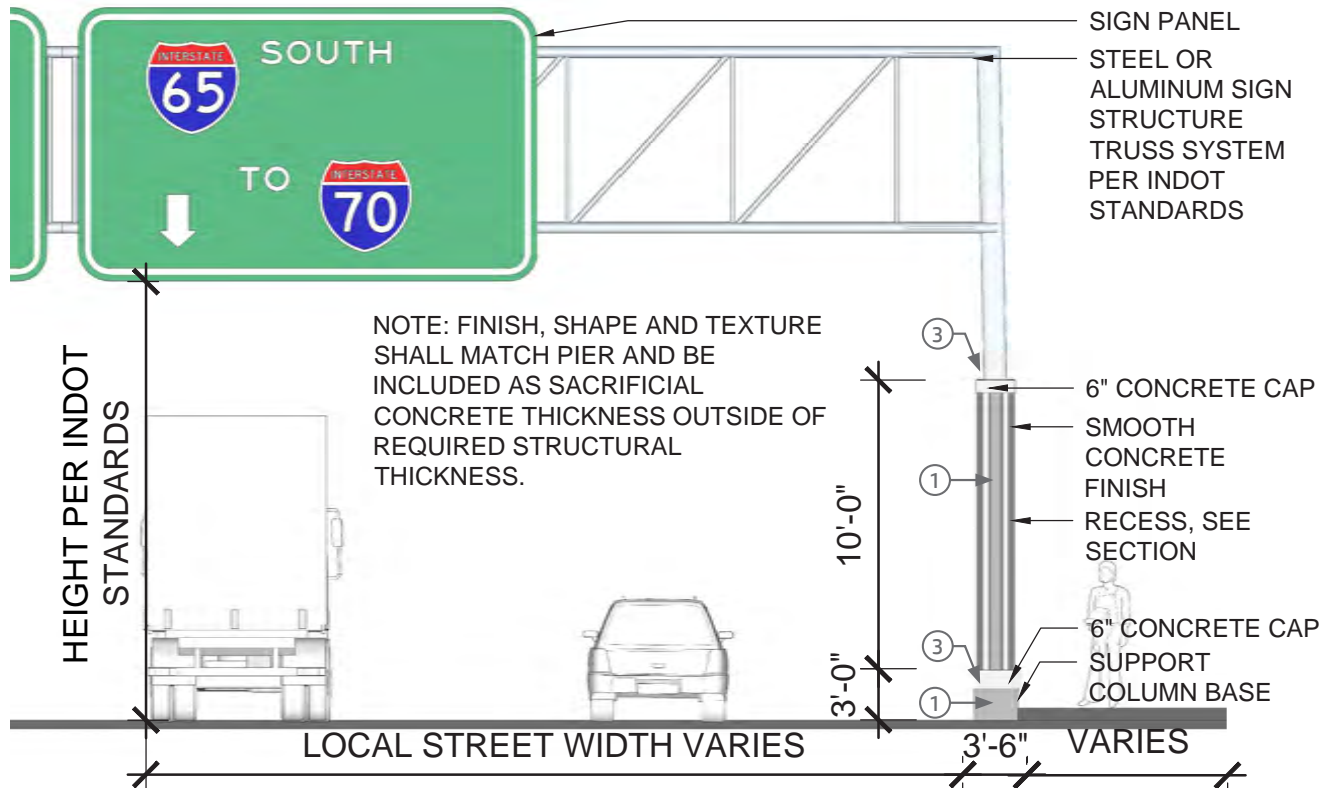
**BEGA | LED COMPACT
FLOOD**



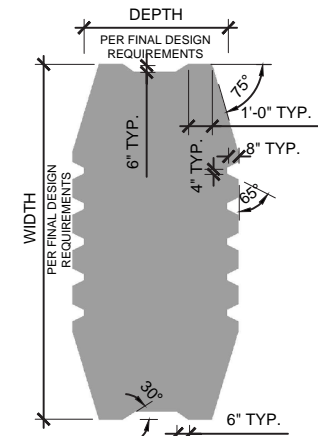
OVERHEAD BOX TRUSS SIGN ON LOCAL STREETS

COLOR LEGEND: SEE COLOR SECTION

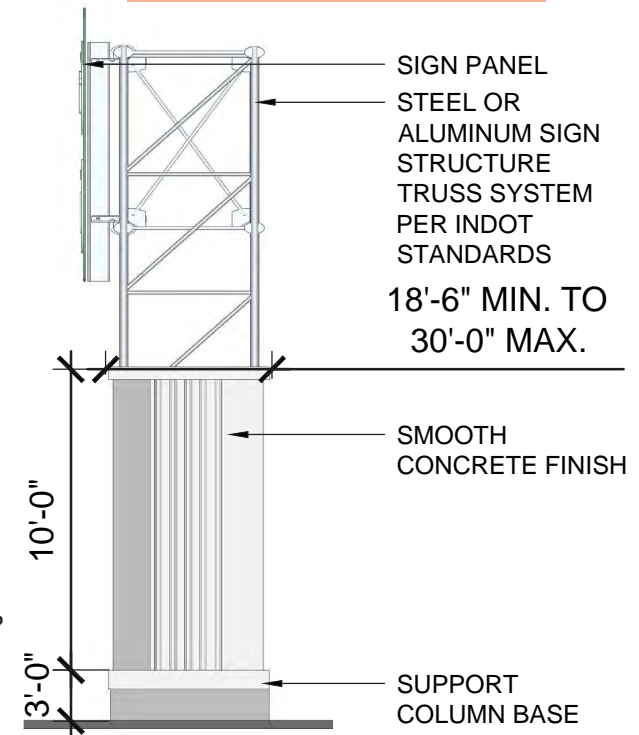
- | | |
|------------|------------|
| ① COLOR A1 | ⑤ COLOR B2 |
| ② COLOR A2 | ⑥ COLOR C |
| ③ COLOR A3 | ⑦ COLOR D |
| ④ COLOR B1 | ⑧ COLOR E |



FRONT ELEVATION (TYPICAL)



COLUMN CROSS SECTION, TYP.

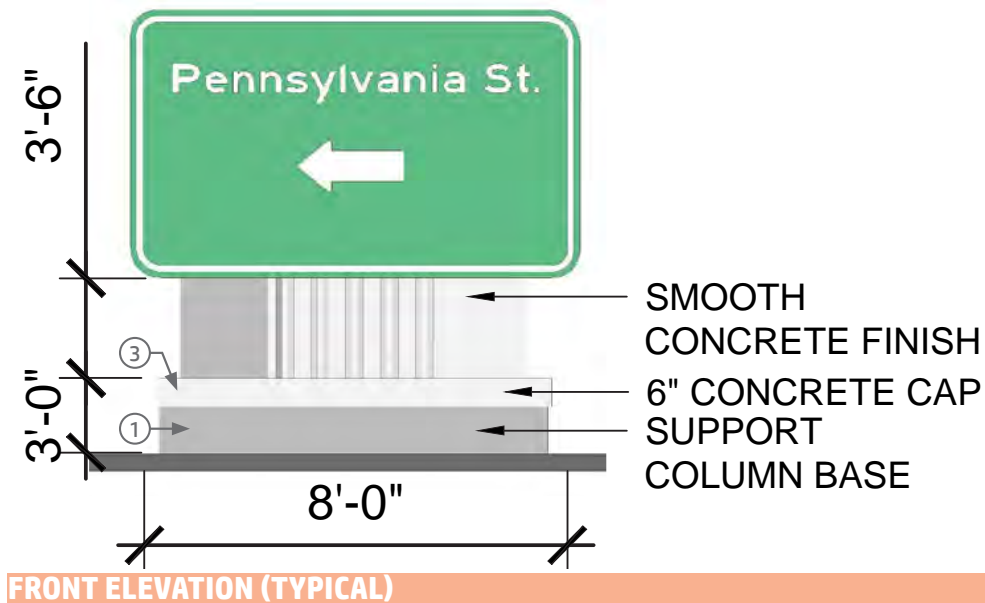


SIDE ELEVATION (TYPICAL)

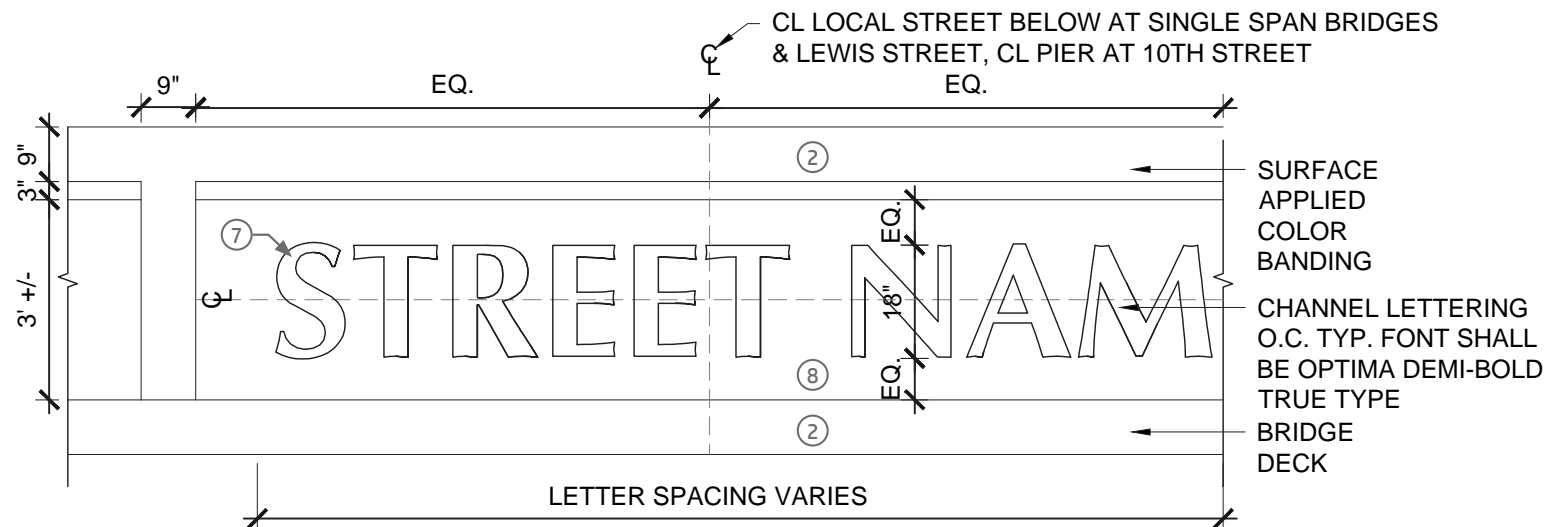
GROUND- MOUNTED PANEL SIGN AT LOCAL STREETS

COLOR LEGEND: SEE COLOR SECTION

- | | |
|------------|------------|
| ① COLOR A1 | ⑤ COLOR B2 |
| ② COLOR A2 | ⑥ COLOR C |
| ③ COLOR A3 | ⑦ COLOR D |
| ④ COLOR B1 | ⑧ COLOR E |



TRAFFIC BARRIERS

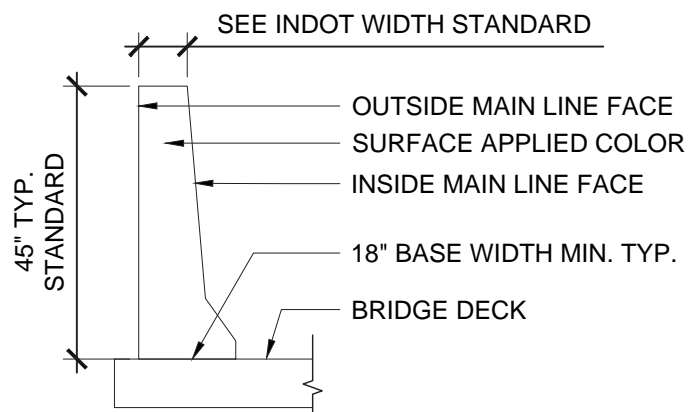


COLOR LEGEND: SEE COLOR SECTION

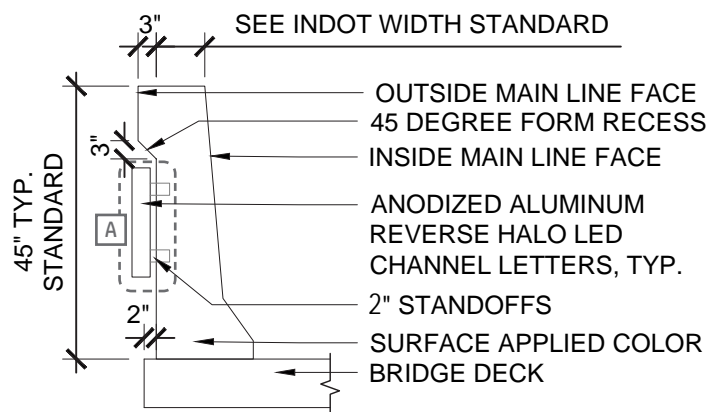
① COLOR A1	⑤ COLOR B2
② COLOR A2	⑥ COLOR C
③ COLOR A3	⑦ COLOR D
④ COLOR B1	⑧ COLOR E

NOTE: STRUCTURAL DESIGN OF LETTERING CONNECTION TO BARRIER SHALL BE THE RESPONSIBILITY OF THE DESIGN-BUILD CONTRACTOR IN ACCORDANCE WITH THE TECHNICAL PROVISIONS AND PROJECT STANDARDS.

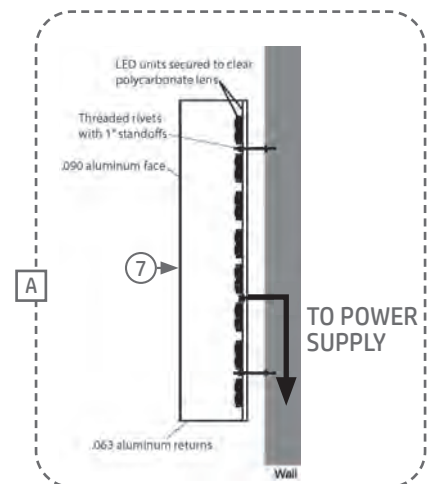
OUTSIDE FACE ELEVATION (TYPICAL)



STANDARD BARRIER CROSS SECTION (TYPICAL)



SIGN BARRIER CROSS SECTION (TYPICAL)

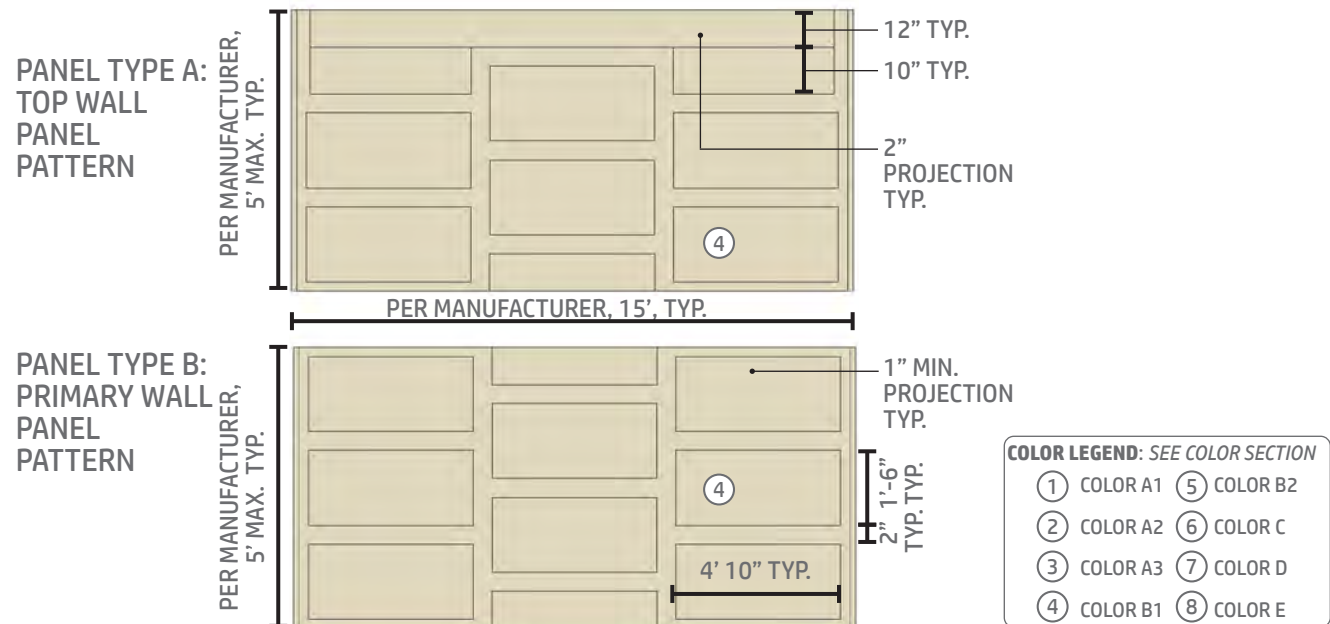


REVERSE HALO CHANNEL LETTER

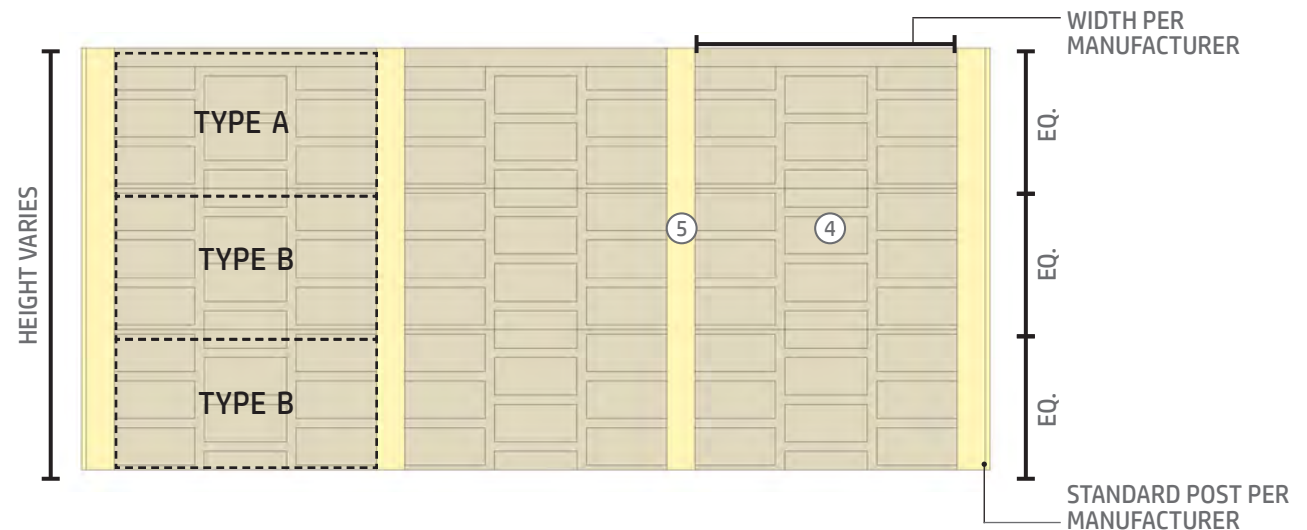
SOUND BARRIERS

Characteristics

- Panel patterns shall be proportionally scaled to meet manufacturer's requirements.
- Panel textures, colors and patterns shall be visually consistent with MSE walls.



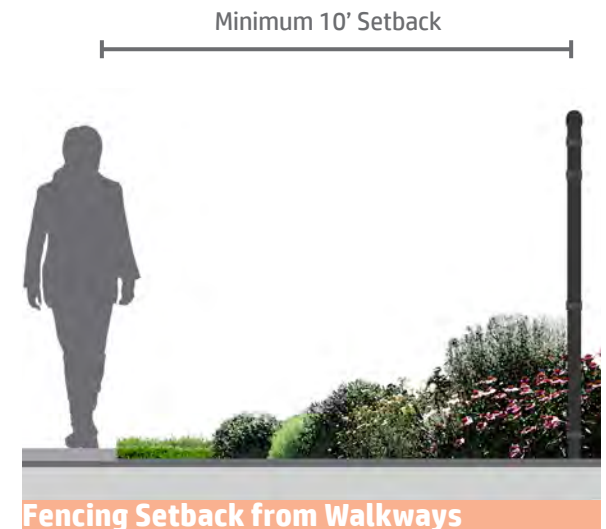
SOUND BARRIER PANEL TYPES (TYPICAL)



SOUND BARRIER FRONT ELEVATION (TYPICAL)

FENCING

Fencing shall be chain-link with black vinyl coating and meet height requirements between 4' and 6', with 6' fencing used adjacent to the Monon Trail.



BRIDGES OPENINGS

Overview:

With the reconstruction of the I-65/I-70 North Split interchange, the bridges that pass over local city streets will be replaced as part of this project. Thirteen downtown city streets are directly affected by the project. When the project is complete, all existing streets will still function as through streets with the interstate remaining elevated, bridging over the local streets.

The proposed design of the bridge opening infrastructure provides wider underpass openings, creating a safer and more inviting environment for accommodating pedestrians and vehicles.

Bridge Opening Types

Three bridge opening types were developed for local roadway connections. These bridge opening types shall be:

- 1. Major Gateway Bridge Openings:** These bridge openings signify the most visible and highly used connections under the interstate. They shall function as neighborhood gateways, arterial street enhancements, and access points to the interstate.
- 2. Minor Gateway Bridge Openings:** These bridge openings occur at collector and neighborhood streets and shall be visually similar to the Major Gateway Bridges.
- 3. Standard Bridge Openings:** These bridge openings are essentially the base build condition. These bridges are more utilitarian and shall occur at bridges within the interchange, interior bridges sandwiched between a set of Major or Minor Bridges, or other areas where there is little or no pedestrian activity.

The bridge opening types shall contain a basic level of design enhancements proposed as part of the project, including wider sidewalks to encourage pedestrian connectivity, bridge abutment walls to reduce sidewalk edge encampment and loitering, traffic barriers with place making and wayfinding elements, and enhanced underpass lighting and visibility. The structural bridge components shall be designed to highlight the engineering and materials of the bridge components, allowing the engineering design to add to the overall visual interest of the underpass. While not overly detailed, integrating this level of ornamentation at the bridge openings enhances the character and overall visual impact to the infrastructure.

With the exception of only a few locations, all bridge openings cross over a local roadway. In the instance where a bridge opening crosses over a shared use trail, rail line, or on-ramp, the bridge structure aesthetic enhancements shall be applied while the ground plane enhancements shall not be applied due to varying conditions.

MAJOR GATEWAY BRIDGES

Design Summary:

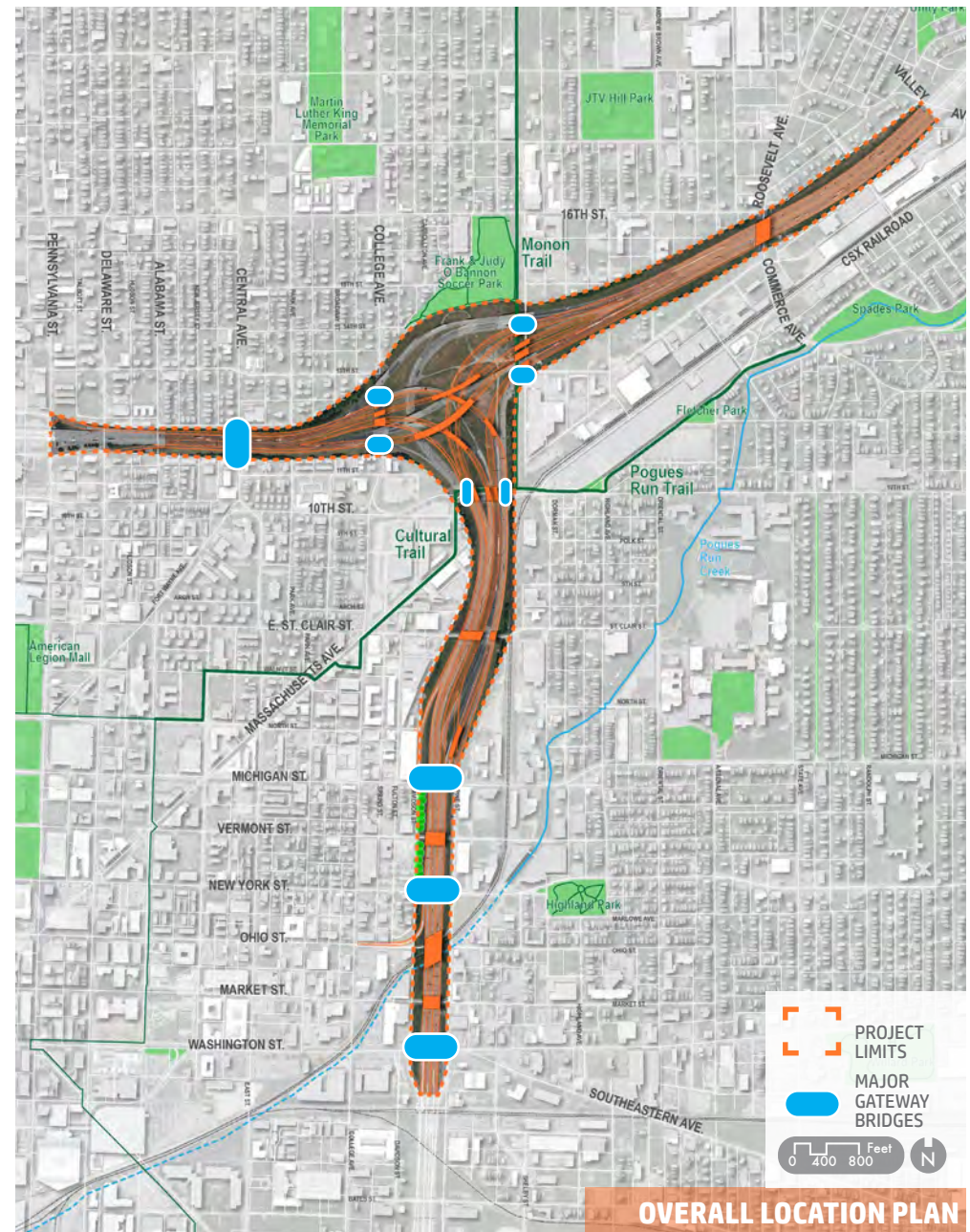
Major Gateway Bridges provide crossing of I-65/I-70 over collector and arterial streets. To accomplish this, the following summarize the general characteristics of the Major Gateway Bridges:

- Provide safe, efficient and accommodating pedestrian and bicycle facilities at the local street level to improve connectivity.
- Apply enhanced treatments to abutment corner monuments, and traffic barriers while maintaining visual consistency to the Minor and Standard Underpass Bridges.

Locations:

The major gateway bridges within the project shall be at the following locations, as illustrated on the corridor map:

- 10th Street (double span)
- Central Avenue (single span)
- College Avenue (single span)
- Lewis Street/ Monon Trail (double span)
- New York Street (Single Span)
- Michigan Street (single span)
- Washington Street (single span)



OVERALL LOCATION PLAN

MAJOR GATEWAY BRIDGES

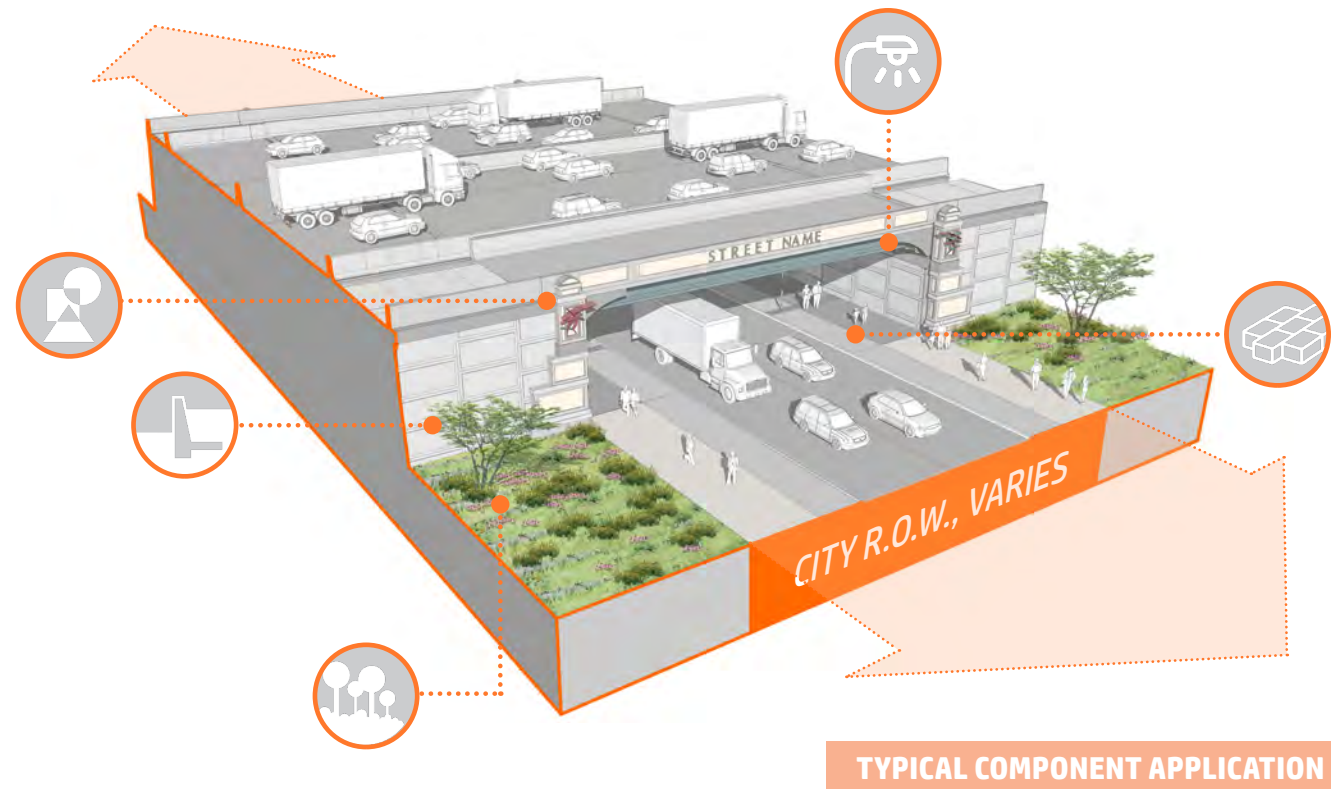
Application Summary:

This bridge type is influenced and inspired by local landmarks, civic identity and historic forms within the context of downtown and surrounding neighborhoods' architecture. The Major Gateway Bridge design builds upon the decorative and detailed character utilizing texture and shapes found in the surrounding context that celebrate the capitol city. It provides an opportunity for the integration of future public art within the public realm.

COMPONENT USE:

Design enhancements for Major Gateway Bridges shall include the following:

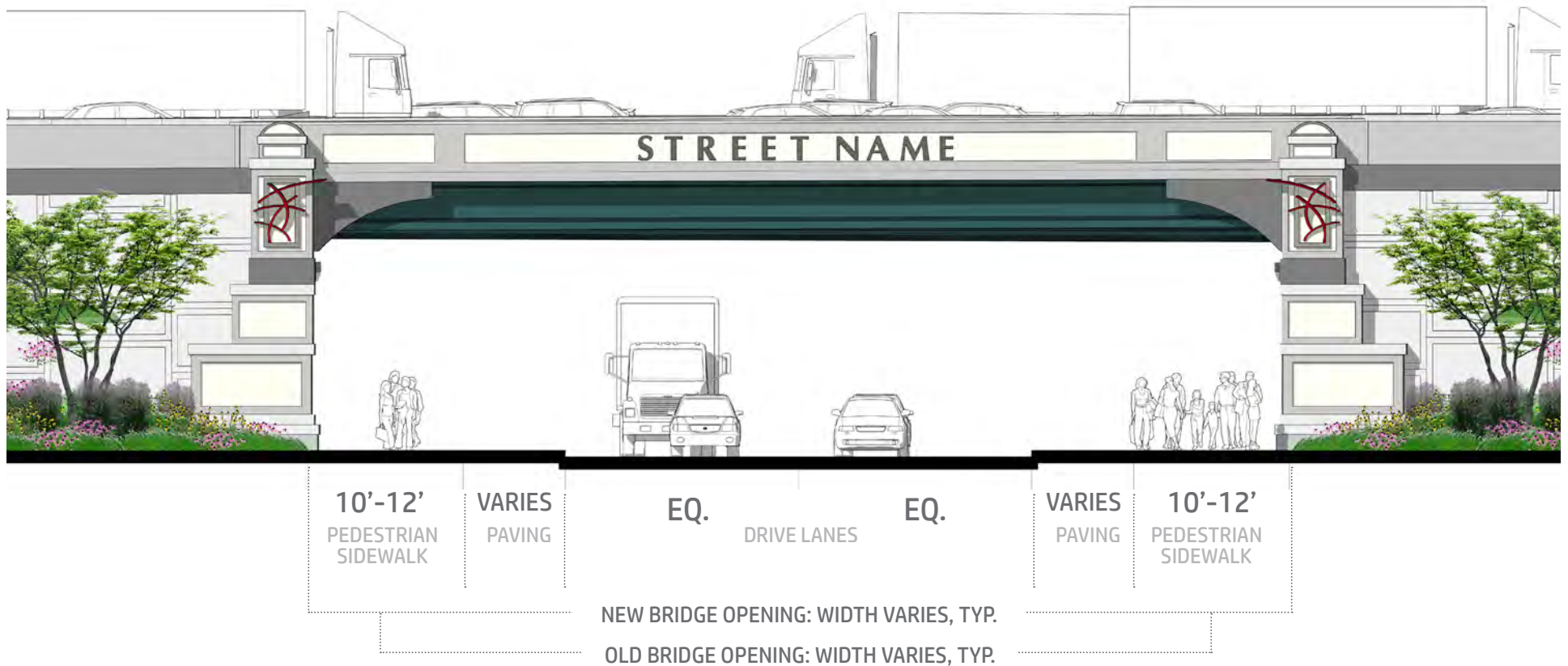
- Abutment Walls
- Lighting
- Surfacing
- Landscape
- Public Art Spaces



MAJOR GATEWAY BRIDGE APPLICATION SINGLE SPAN

NOTES:

1. CORNER MONUMENTS ONLY REQUIRED ON THE OUTSIDE OF EXTERIOR BRIDGES FOR A TOTAL OF 4 PER CROSSING.

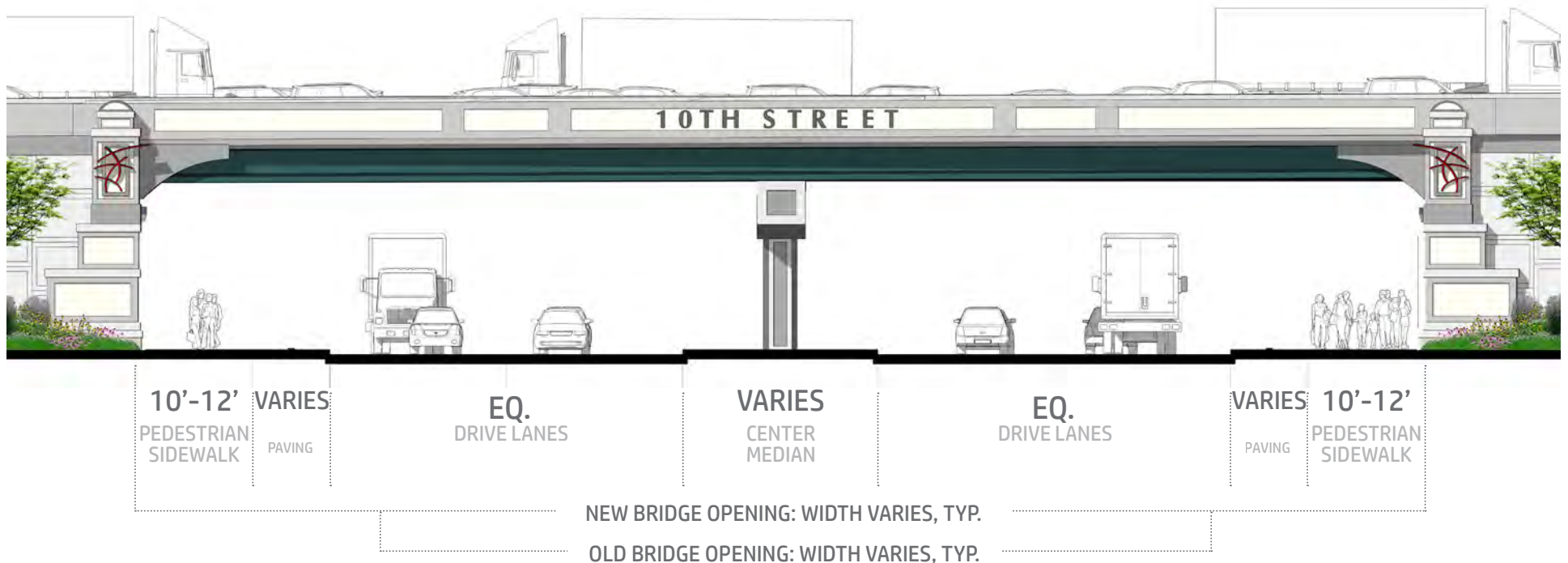


TYPICAL MAJOR GATEWAY BRIDGE ELEVATION

MAJOR GATEWAY BRIDGE APPLICATION DOUBLE SPAN, TYPICAL

NOTES:

1. CORNER MONUMENTS ONLY REQUIRED ON THE OUTSIDE OF EXTERIOR BRIDGES FOR A TOTAL OF 4 PER CROSSING.

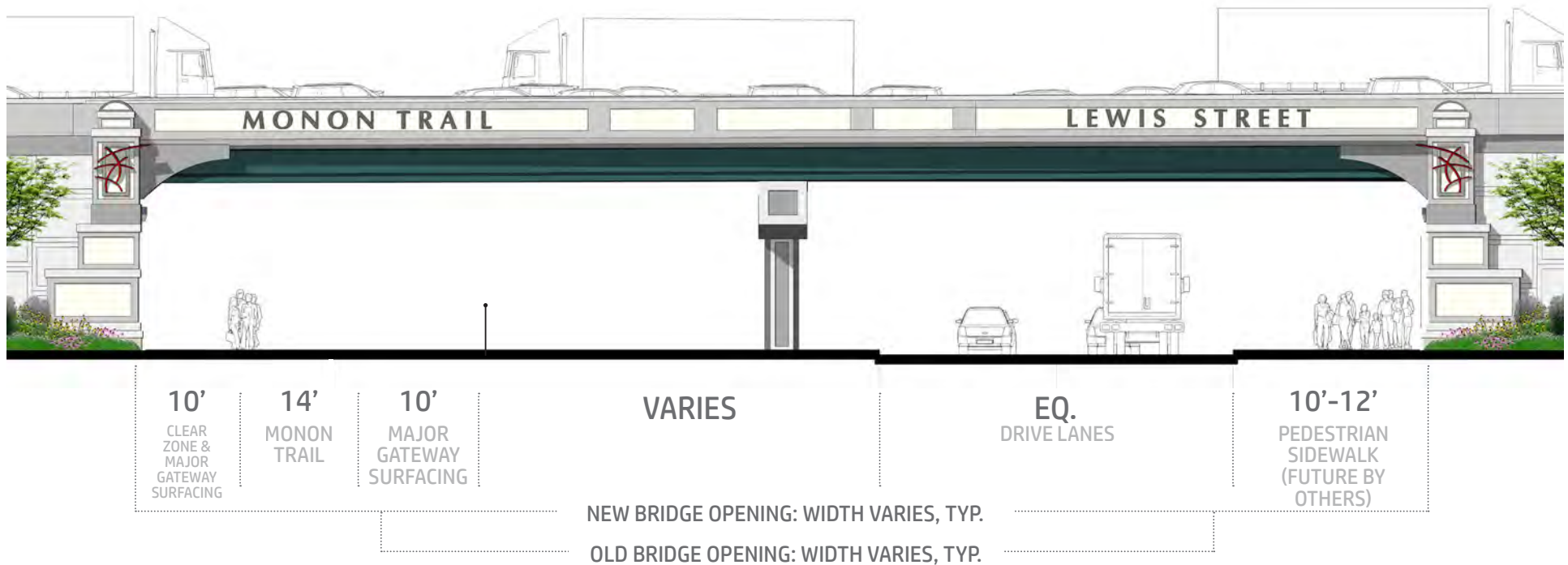


TYPICAL MAJOR GATEWAY BRIDGE ELEVATION

MAJOR GATEWAY BRIDGE APPLICATION DOUBLE SPAN AT MONON & LEWIS STREET

NOTES:

1. CORNER MONUMENTS ONLY REQUIRED ON THE OUTSIDE OF EXTERIOR BRIDGES FOR A TOTAL OF 4 PER CROSSING.



TYPICAL MAJOR GATEWAY BRIDGE ELEVATION



MINOR GATEWAY BRIDGES

Design Summary:

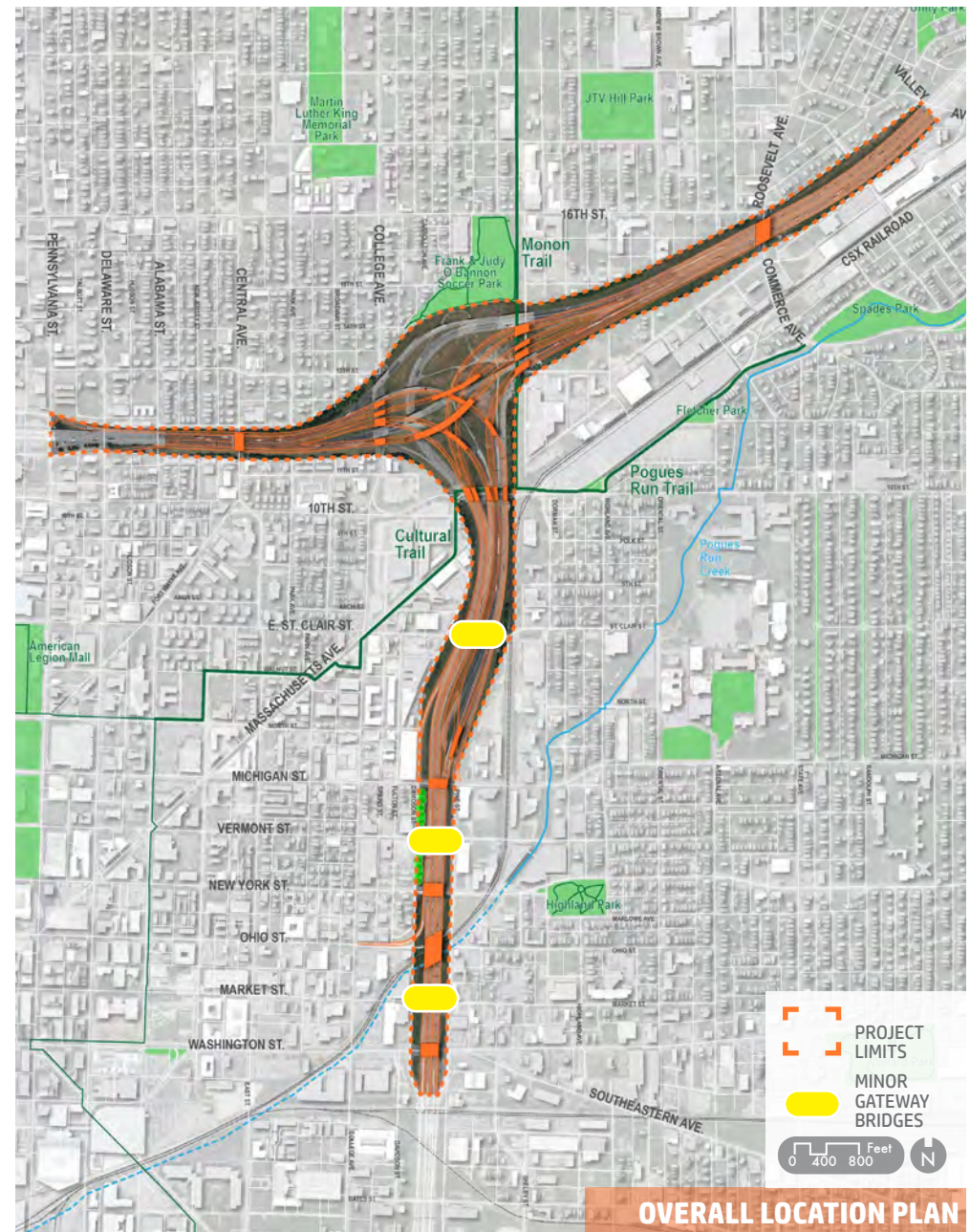
Minor Gateway Bridges provide crossing of I-65/I-70 over smaller-scaled less traveled local streets. The following summarizes the general characteristics of the Minor Underpass Bridges:

- Provide safe, efficient and accommodating pedestrian and bicycle facilities through the underpasses at the local street level to improve connectivity.
- Apply simplified treatments to abutment corner monuments, and traffic barriers while maintaining visual consistency to the Major and Standard Underpass Bridges.

Locations:

The bridges identified within the project that shall be considered Minor Gateways, as illustrated on the corridor map:

- Market Street
- Vermont Street
- St. Clair Street



OVERALL LOCATION PLAN

Application Summary:

COMPONENT USE:

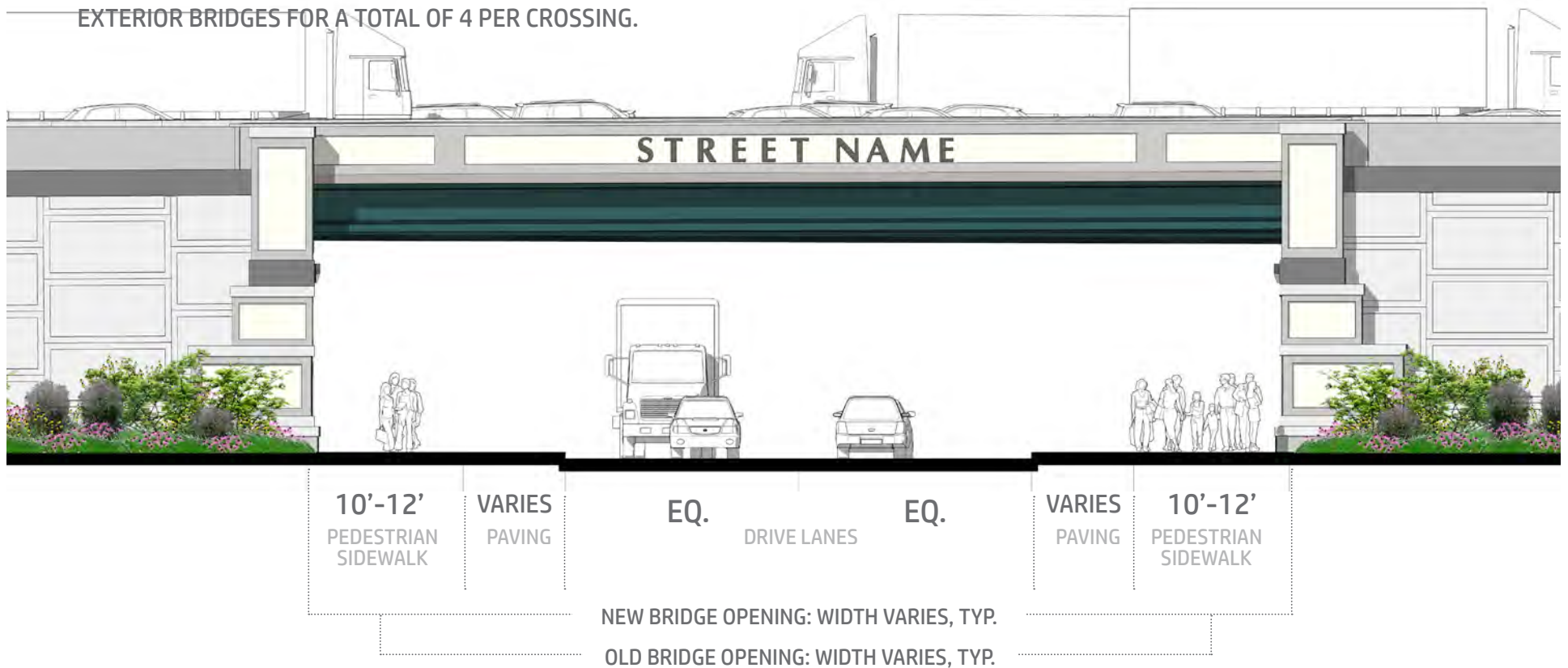
- Abutment Walls
- Lighting
- Surfacing
- Landscape



MINOR GATEWAY BRIDGE APPLICATION

NOTES:

1. PLANTING AND LIGHTING BUFFER ZONES ONLY REQUIRED AT ST. CLAIR STREET CROSSING.
2. CORNER MONUMENTS ONLY REQUIRED ON THE OUTSIDE OF EXTERIOR BRIDGES FOR A TOTAL OF 4 PER CROSSING.



TYPICAL MINOR GATEWAY BRIDGE ELEVATION

STANDARD UNDERPASS & SURFACES

Design Summary:

Standard Underpass Bridges provide crossing of I-65/I-70 over local streets. The following summarize the general characteristics of the Standard Underpass Bridges:

- Provide safe, efficient and accommodating pedestrian and bicycle facilities at the local street level to improve connectivity.
- Apply simplified treatments with visual consistency to the Major and Minor Underpass Bridges.

Standard Underpass Locations:

The bridges identified within the project that shall receive the standard underpass treatment at the following locations, as illustrated on the corridor map:

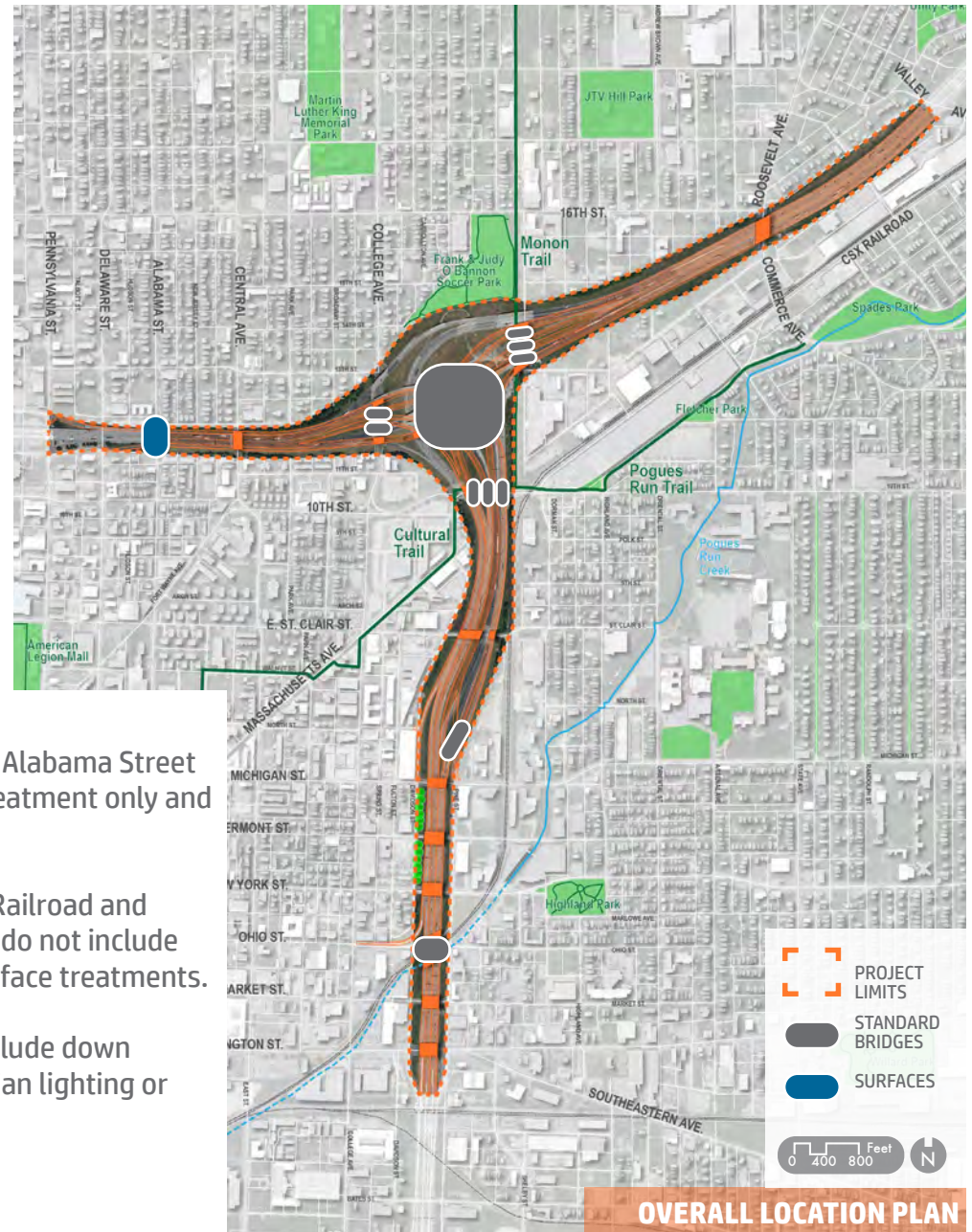
- College Avenue (2 internal bridges)
- 10th Street (3 internal bridges)
- Pine Street (1 straddle bent)
- Lewis Street/ Monon Trail (3 internal bridges)
- Ohio Street & CSX Railroad (3 bridges)
- Interchange (all bridge locations)

Treatment Notes:

The Standard Bridge at Alabama Street shall receive surface treatment only and no pedestrian lighting.

The Ohio Street & CSX Railroad and the Pine Street bridges do not include pedestrian lights or surface treatments.

Interchange bridges include down lighting but no pedestrian lighting or surface treatments.



OVERALL LOCATION PLAN

STANDARD UNDERPASS BRIDGES

Application Summary:

This bridge type is a simplified version of the three types. It is to be used in conditions where visibility is less significant or it is less visible, such as between two Major or Minor Gateway Bridges if the bridge span requires multiple bridge decks. This bridge is intended to maintain visual uniformity and continue to enhance the design aesthetic within the project area.

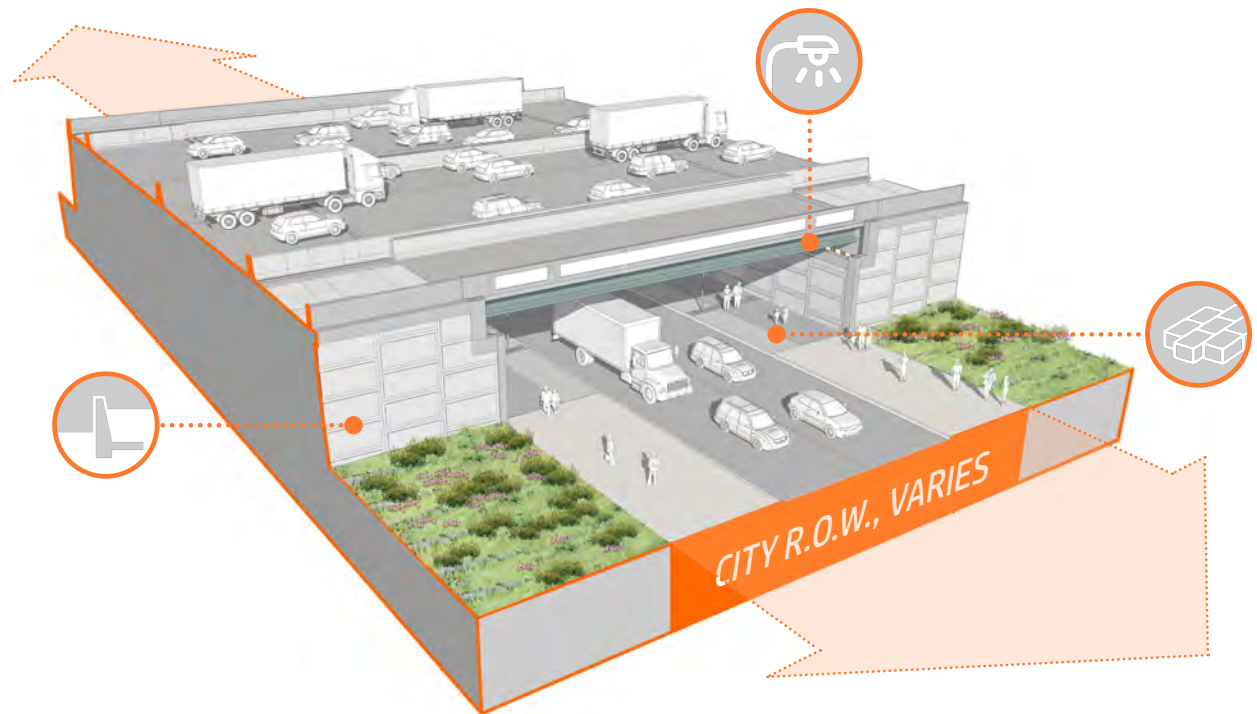
COMPONENT USE:

Standard Bridge treatments shall include the following components:

- Abutment Walls
- Lighting
- Surfacing

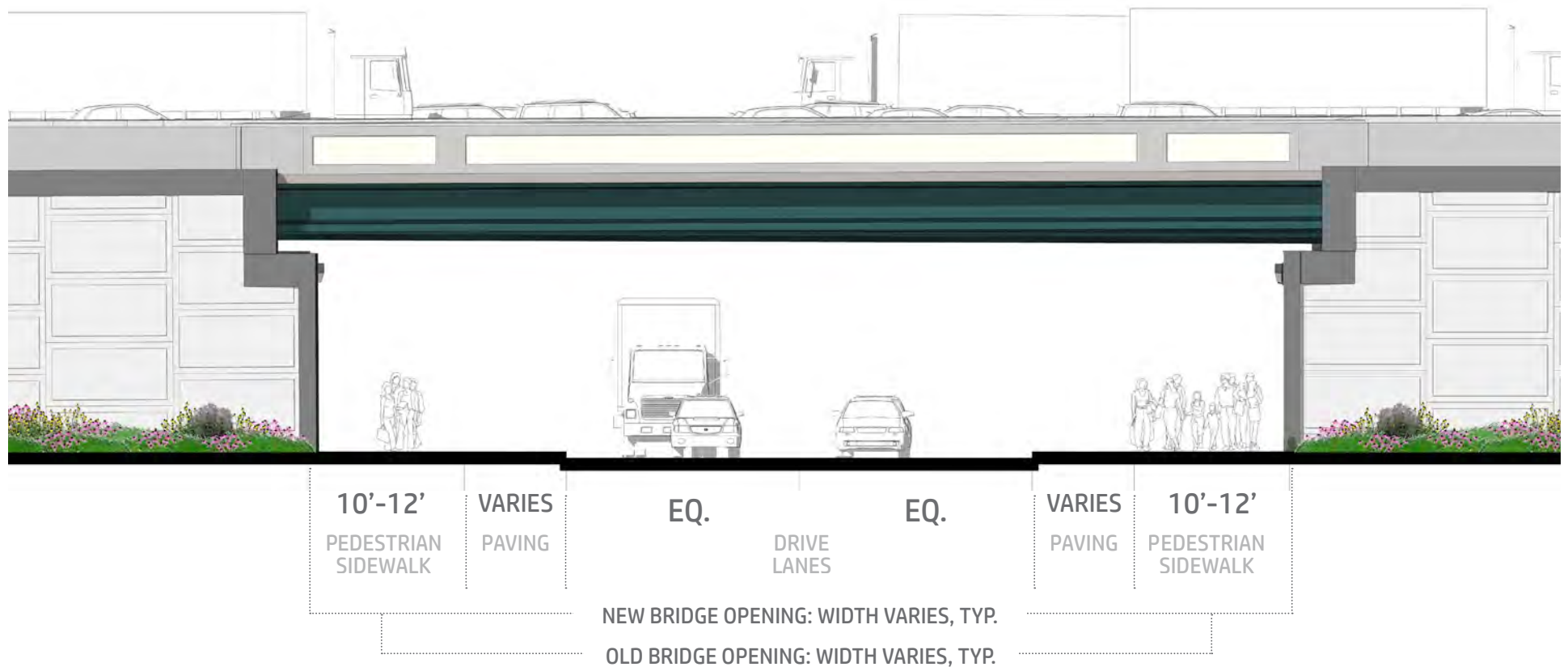
NOTE:

Local level surface treatments will not apply to interchange bridges and ramp bridges where no pedestrian facilities currently exist.



TYPICAL COMPONENT APPLICATION

STANDARD UNDERPASS BRIDGE APPLICATION



TYPICAL STANDARD BRIDGE ELEVATION

LANDSCAPE INTRODUCTION

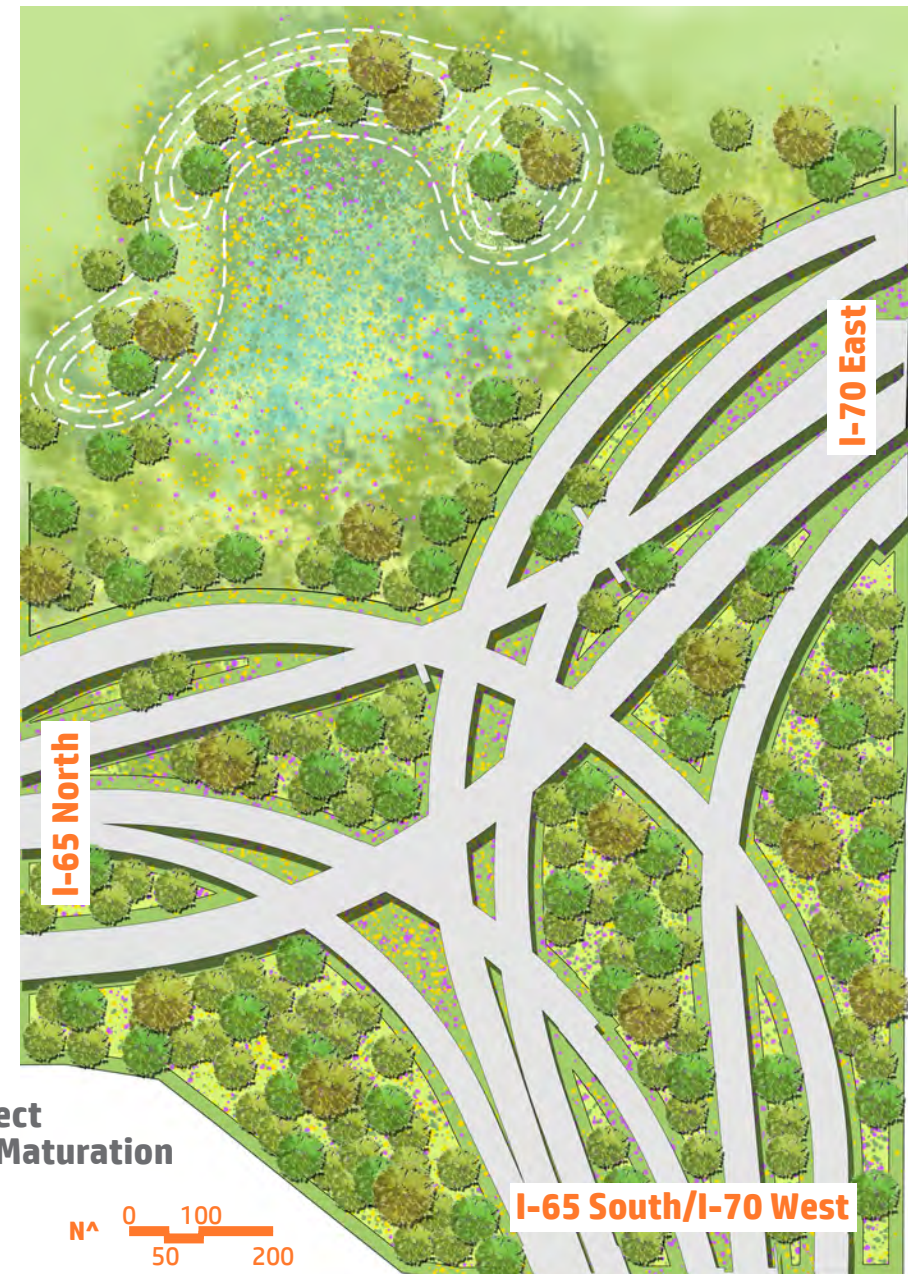
Landscape Summary

This section of the North Split Aesthetic Design Guidelines provides direction for landscape form and function, evaluating how vegetative aesthetic treatments can also serve the needs for the INDOT-owned interstate, the City-owned local streets and the surrounding communities.

Information gained from neighborhood workshops and surveys during the Context Sensitive Solutions process of the I-65/I-70 North Split Project indicated that the public preferred a more naturalistic approach to landscape design with many referring to the term “urban forest.” This urban forest concept has been considered as part of the design guidelines - found in *Interchange Plantings* of this section.

This document also recognizes the existence of INDOT standards, as well local groups (such as Keep Indianapolis Beautiful) and resources for achieving the proposed design.

**I-65/I-70 North Split Project
Interchange Plantings at Maturity**



LANDSCAPE OVERVIEW

Landscape Design Typology

The landscape palette includes a range of treatments that focus primarily on native plant selections to enhance the aesthetic appeal of the interchange. The design concept places plant species within urban conditions that best represent their naturally occurring plant communities. The typologies for the landscape treatment include:

- Tree Preservation Areas as “The Nature Reserve”
- 10’ Buffer-Zones as “The Lawn”
- Side Slope Plantings as “The Uplands”
- Screen Plantings as “The Woodlands”
- Interchange Plantings as “The Prairie’s Edge”
- Detention Basin Plantings as “The Wetlands”

Typology 1: Tree Preservation

Tree Preservation Areas protect trees that are deemed “significant” to the landscape. Tree preservation areas were determined through the Section 106 Consultation Process and are included in the final “Do Not Disturb” areas for the project site.

Typology 2: 10’ Buffer-Zone

The 10’ Buffer-Zone is intended to maintain a set-back for plantings so there is no interference between the landscaped areas and roadway functions.

Typology 3: Side Slope Plantings

Plants, rather than extended infrastructure, can be used for erosion control and soil stabilization along the interstate embankments as a cost-effective and less-infrastructure dependent option.

Typology 4: Screen Plantings

Plants can minimize the appearance of sound barriers from adjacent residences.

Typology 5: Interchange Plantings

Plants can give purpose to expansive spaces, within and around the interchange, in a manner that is low-cost and less maintenance intensive, while still providing visual interest.

Typology 6: Detention Basin Plantings

Plants allow for the filtration and infiltration of storm water on site. As such, a heavily planted area for the purpose of stormwater detention - a dry extended detention basin - is favored over a traditional retention pond for the benefits it can offer the urban landscape.

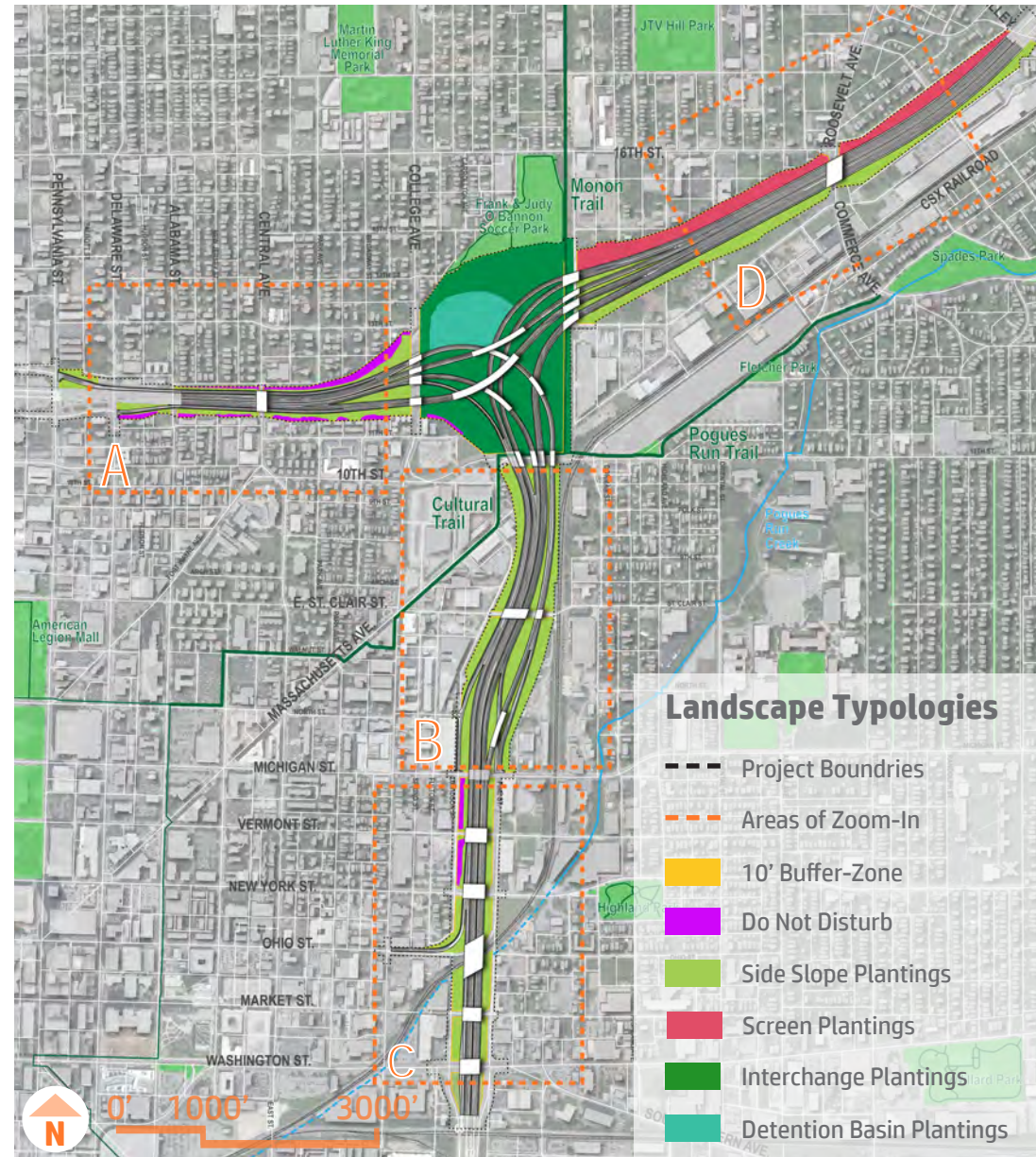
LANDSCAPE OVERVIEW

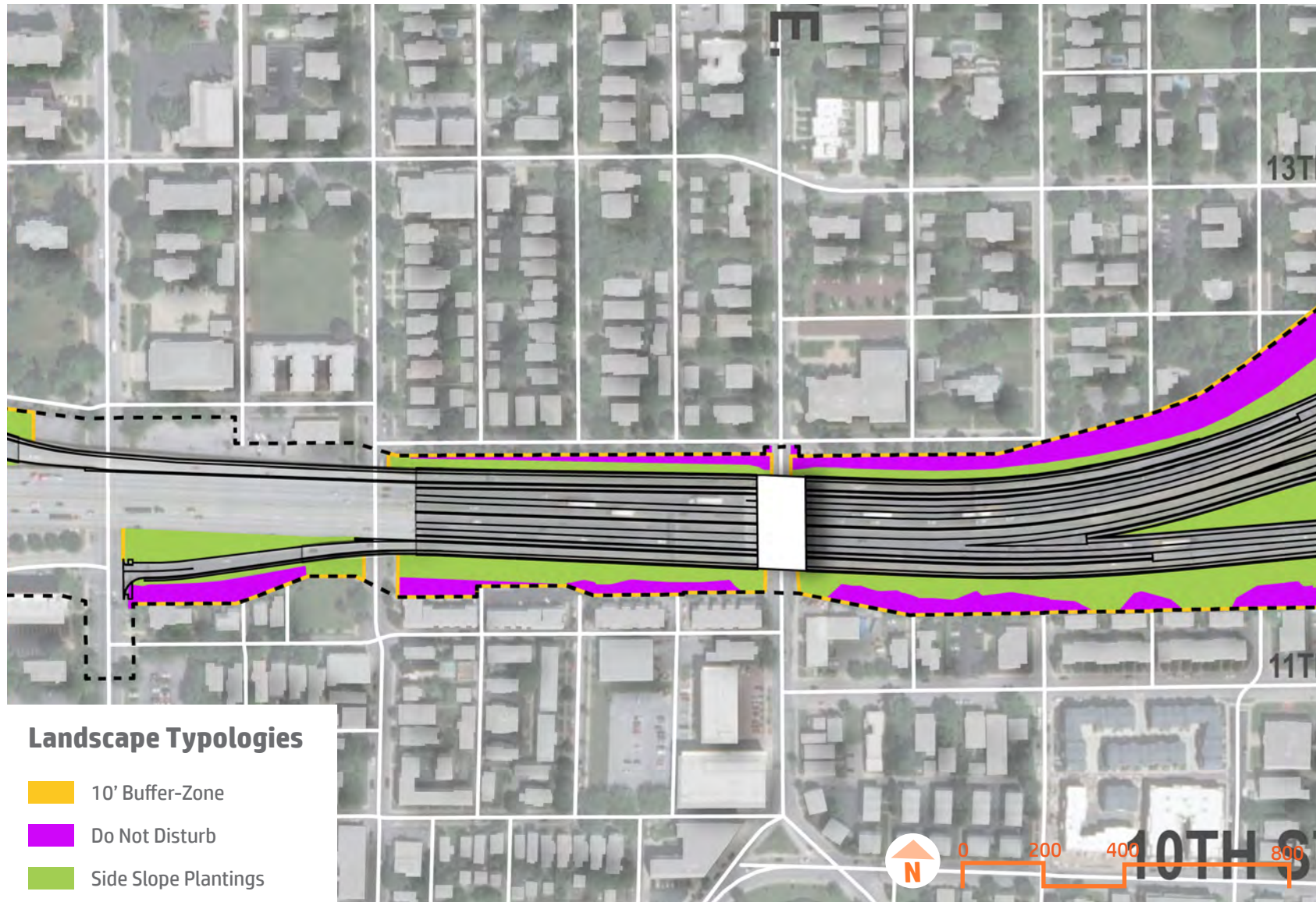
Design Summary

The landscape palette shall utilize a range of treatments that focus on native plant selections to enhance the interchange and overall corridor. The graphic on the right identifies **general** areas of appropriateness for landscape treatment typologies. Final typologies may vary depending on the final engineering considerations of the interstate and associated structures.

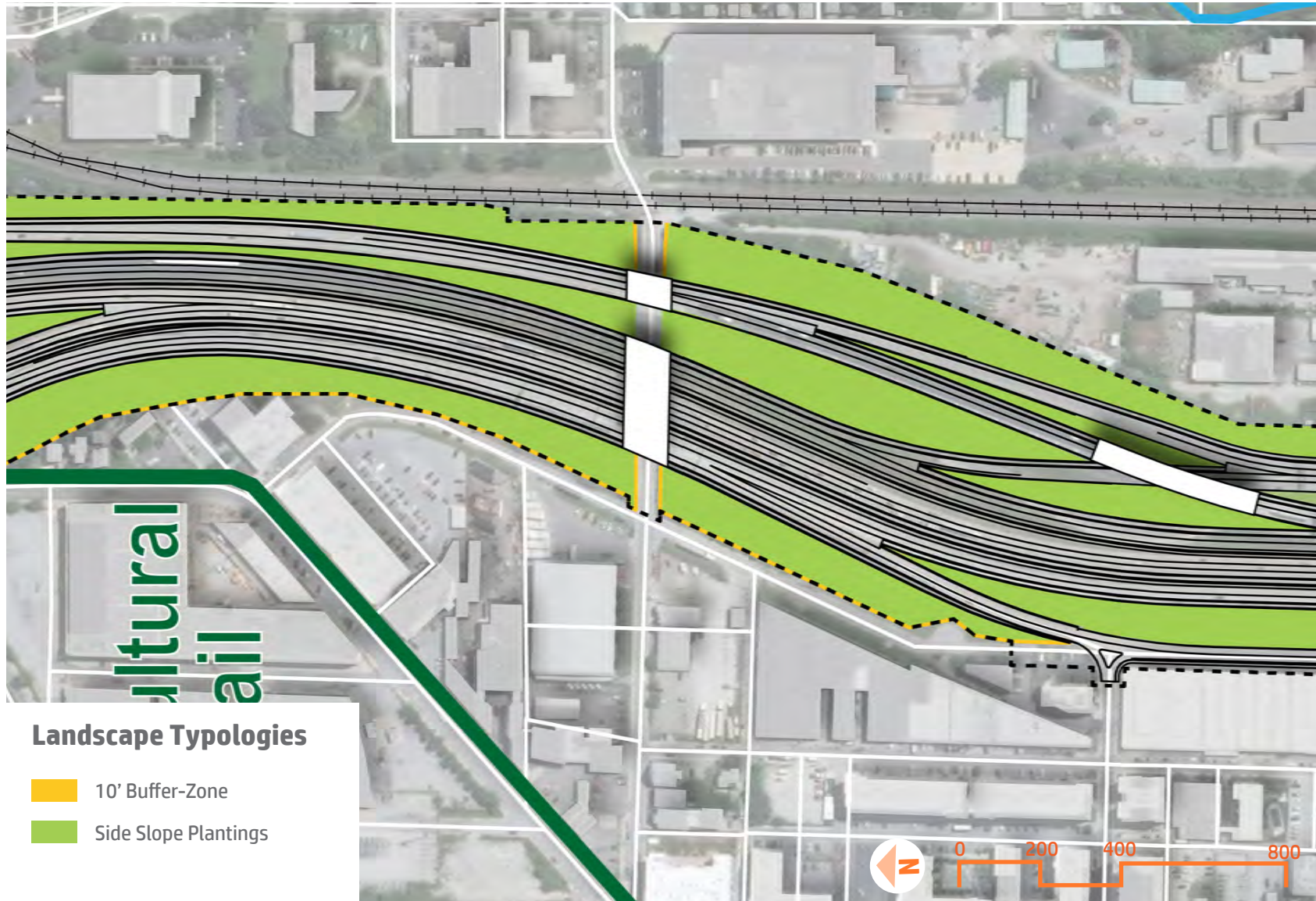
Guidelines

- Use native, low-maintenance plants whenever possible
- Soften urban elements of the corridor with a naturalized placement of plants
- Provide a diverse palette of plants species

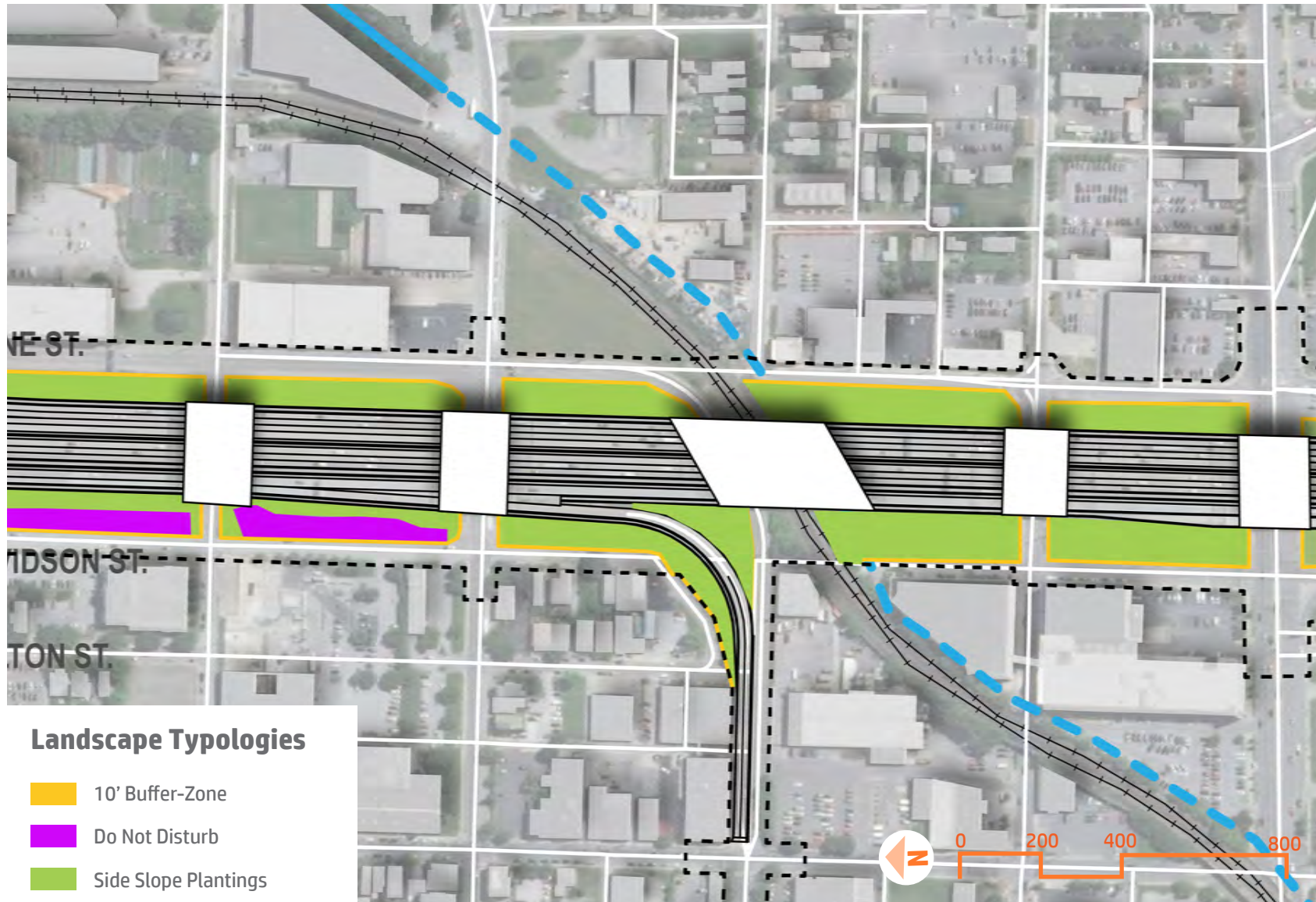




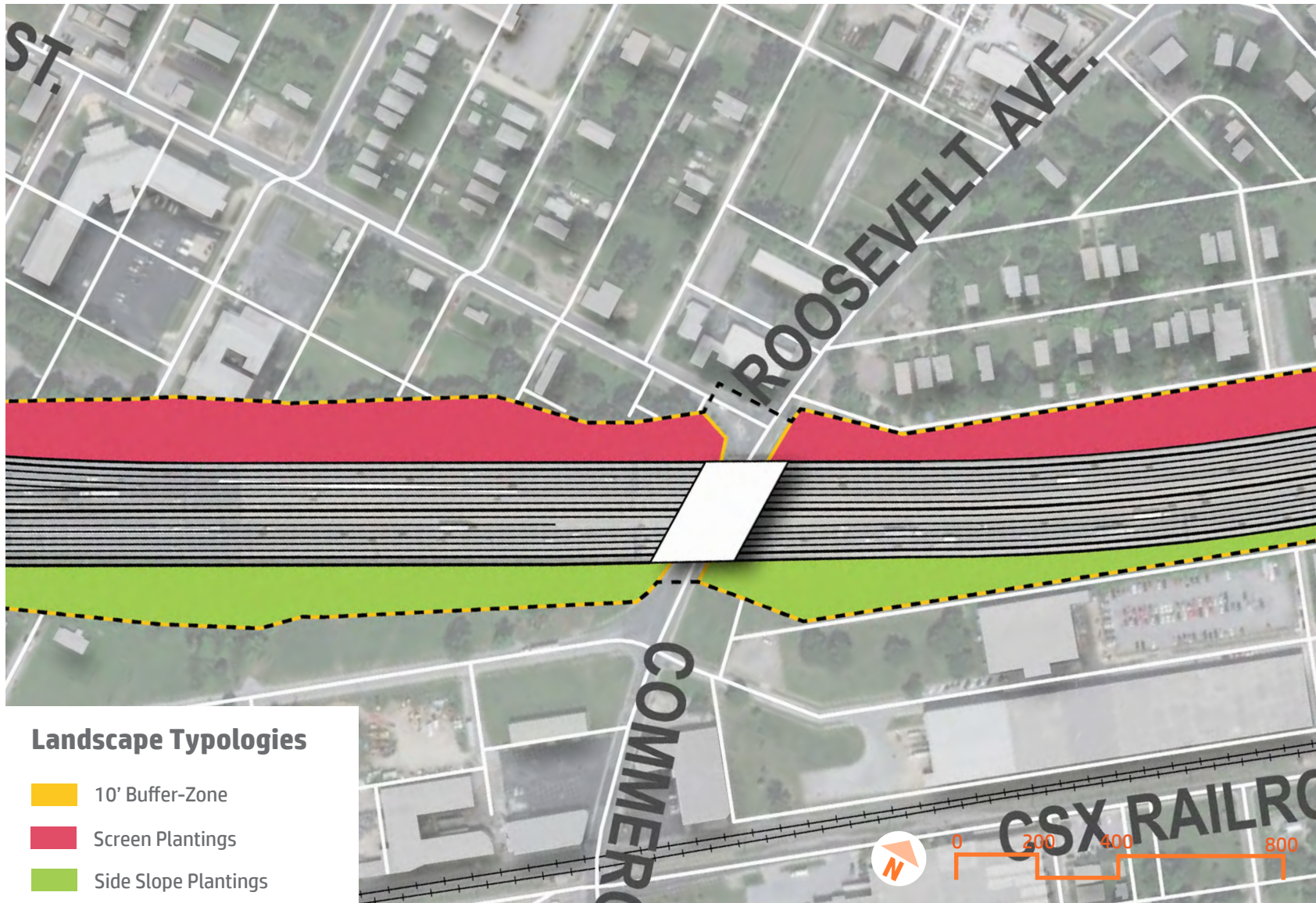
A. WEST LEG



B. SOUTH LEG BETWEEN 10TH STREET AND MICHIGAN STREET



C. SOUTH LEG BETWEEN MICHIGAN STREET AND WASHINGTON STREET



D. EAST LEG

QUANTITIES FOR COST ESTIMATING

Summary

The information provided outlines the total square feet of each typology and then the square feet of each plant material that makes up the typology. The square footage follows the design guidelines and parameters of placement for all plant material.

Seed coverage and on-center plant spacing are provided, and shall be followed for the unique conditions of each typology.

The plantings will follow Keep Indianapolis Beautiful's (KIB) planting standard of 15' on-center maximum spacing for all deciduous shade and ornamental trees. Evergreen screen trees will differ at a 10' on-center maximum spacing. Small deciduous and evergreen shrubs will be planted at 4' on-center, while large deciduous shrubs will be planted at 8' on-center. Plugs will be planted at 6" on-center.

Typology 1: Tree Preservation Areas

Approximate Total Square Feet: 187,300

Typology 2: 10' Buffer-Zone

Approximate Total Square Feet: 247,600

***NO-MOW, ECO-LAWN SEED MIX* Square Feet of Coverage: 247,600**

Coverage applied at a rate of 220 PLS (Pure Live Seed) pounds per acre.

Typology 3: Side Slope Plantings

Approximate Total Square Feet: 1,528,200

***SLOPE STABILIZATION SEED MIX* Square Feet of Coverage: 1,528,200**

Coverage applied at a rate of 60 PLS (Pure Live Seed) pounds per acre

***NATIVE GRASSES* Square Feet of Coverage: 68,400**

Plugs, Planted 6" On-Center

***NATIVE FORBS* Square Feet of Coverage: 68,400**

Plugs, Planted 6" On-Center

***SMALL SHRUBS* Square Feet of Coverage: 278,280**

Minimum 3-Gallon Container, Planted 4' On-Center

***LARGE, DECIDUOUS SHRUBS* Square Feet of Coverage: 278,280**

Minimum 3-Gallon Container, Planted 8' On-Center

***ORNAMENTAL TREES* Square Feet of Coverage: 278,280**

5-6' Tall, Planted at 15' On-Center

***SHADE TREES* Square Feet of Coverage: 278,280**

Minimum 2" Caliper, Planted at 15' On-Center

QUANTITIES FOR COST ESTIMATING

Typology 4: Screen Plantings

Approximate Total Square Feet: 378,500

***SLOPE STABILIZATION SEED MIX* Square Feet of Coverage: 378,500**

Coverage applied at a rate of 60 PLS (Pure Live Seed) pounds per acre

***LARGE, DECIDUOUS SHRUBS* Square Feet of Coverage: 23,655**

Minimum 3-Gallon Container, Planted 8' On-Center

***ORNAMENTAL TREES* Square Feet of Coverage: 23,655**

5-6' Tall, Planted at 15' On-Center

***COLUMNAR TREES* Square Feet of Coverage: 23,655**

Minimum 2" Caliper, Planted at 10' On-Center

***SHADE TREES* Square Feet of Coverage: 23,655**

Minimum 2" Caliper, Planted at 15' On-Center

***EVERGREEN TREES* Square Feet of Coverage: 189,250**

Minimum 6' Tall, Ball and Burlap Planted at 10' On-Center

QUANTITIES FOR COST ESTIMATING

Typology 5: Interchange Plantings

Approximate Total Square Feet: 1,476,900

***PRAIRIE SEED MIX* Square Feet of Coverage: 1,476,900**

Coverage applied at a rate of 40 PLS (Pure Live Seed) pounds per acre

***NATIVE WILDFLOWER SEED MIX* Square Feet of Coverage: 1,476,900**

Coverage applied at a rate of 5 PLS (Pure Live Seed) pounds per acre

***ORNAMENTAL TREES* Square Feet of Coverage: 492,300**

5-6' Tall, Planted at 15' On-Center

***SHADE TREES* Square Feet of Coverage: 984,600**

Minimum 2" Caliper, Planted at 15' On-Center

Typology 6: Detention Basin Plantings

Approximate Total Square Feet: 437,700

***STORMWATER SEED MIX* Square Feet of Coverage: 291,800**

Coverage applied at a rate of 35 PLS (Pure Live Seed) pounds per acre

***PRAIRIE SEED MIX* Square Feet of Coverage: 145,900**

Coverage applied at a rate of 40 PLS (Pure Live Seed) pounds per acre

***LARGE, DECIDUOUS SHRUBS* Square Feet of Coverage: 145,900**

Minimum 3-Gallon Container, Planted 8' On-Center

***SHADE TREES* Square Feet of Coverage: 145,900**

Minimum 2" Caliper, Planted at 15' On-Center

TPOLOGY 1: TREE PRESERVATION AREAS

Design Intent

Tree Preservation Areas protect trees that are deemed “significant” to the landscape. The tree preservation areas are included in the final “Do Not Disturb” areas for the project site.

Further details about tree preservation in the I-65/I-70 North Split Project can be referenced from the Section 106 Consultation Process and should correspond with the final “Do Not Disturb” project limits.

Design Concept ‘The Nature Reserve’

Protect trees throughout all phases of construction, keeping valued natural elements existing within the city.

Benefits

- Retain visual interest
- Protect environmental health
- Provide erosion control

Tree Values

Trees provide lifelong environmental and aesthetic benefits that improve community quality of life. Trees add value to their surroundings by preserving water and soil quality, removing pollutants from the air, lowering surface and air temperatures and providing habitat for wildlife. While trees are some of our most valuable urban assets, they are vulnerable to environmental conditions.

Tree Protection

Trees have basic needs for survival and growth. Water and soil nutrients must be managed to maintain their health, safety and appearance. If not properly protected, construction activities such as soil compaction, grading, improper root and limb pruning, bark injury, incorrect storage of construction materials and dumping of waste can cause stress and damage to trees. However, in most cases, trees will survive if separated from construction equipment and materials.

Various professionals are involved in protecting trees throughout the construction process, including arborists, landscape architects, engineers, planners and municipal agencies. Protecting trees takes time, money and communication. All phases of construction should include tree protection procedures.

According to the Penn State Extension’s *A Guide to Preserving Trees in Development Projects*, Tree preservation occurs during the entire construction process:

Pre-construction

- Tree inventory
- Planning, design, negotiations
- Removals
- Staking of construction footprints under trees—required limb pruning
- Insect control or other care
- Fencing preserved trees

Construction

- Communication and education
- Protection zones
- Required root pruning
- Maintenance of fencing
- Monitoring tree health
- Tree care

Post-Construction

- Communication and education
- Protecting
- Tree care

*Locations for the tree preservation areas can be found in the map on page 40.

TPOLOGY 2: 10' BUFFER-ZONES

10' Buffer-Zones

The 10' Buffer-Zones are intended to maintain a set-back for plantings so there is no interference between the landscaped areas and roadway functions, as well as providing unobstructed views.

Design Concept 'The Lawn'

The Buffer-Zones provide a uniform edge around all plantings allowing for a “naturalized” look, while keeping a manicured appearance of turf amongst the urban context. This appearance is created through the use of a “low-to-no-mow” seed mix.

Benefits

- Minimizes costs associated with mowing and maintenance
- Creates a safe, open buffer zone along the roadway
- Provides order to naturalized plantings

Why 10' Buffer-Zones?

The buffer zone is located in the areas between the back-of-curb along all local roadways and plantings, between property owner lines and plantings, and between any trails/walks and plantings. Along roadways, this area helps to increase visibility for drivers at road edges and corners. They are flexible-use spaces offering potential driver and pedestrian amenities, such as street trees and sidewalks, that are dependent upon context conditions. Ten feet was determined an appropriate buffer width, however, this width is able to change with the unique context conditions.

SUGGESTED SEED MIX COMPOSITION:

NO-MOW, ECO-LAWN SEED MIX

The mix shall include, but is not limited to, an equal blend of the following species and be applied at a rate of 220 PLS (Pure Live Seed) pounds per acre.

Shoreline Creeping Red Fescue exhibits both salt tolerance and Rapid Blight resistance, as well as excellent heat and drought tolerance.

Class One Creeping Red Fescue thrives in both sun and shade with little to no irrigation and performs well in high heat and under reduced maintenance.

SR3150 Hard Fescue is among the most heat and drought tolerant of all fine fescues and requires minimal water and fertilization in both sun and shade.

Quatro Sheep Fescue is low growing and establishes rapidly from seed, yet it's one of the slowest growing grasses available. It also exhibits excellent drought and heat tolerance.

Carson Chewings Fescue makes a very high quality turf and is the most competitive of the fine fescues helping to crowd out weeds.

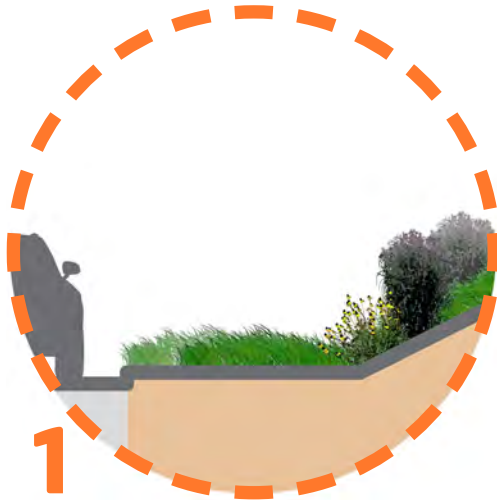


Wildflower Farm via Creston
Eco-lawn natural appearance on slope.



Wildflower Farm via Yvonne
Eco-lawn mown versus natural appearance.

TPOLOGY 2: 10' BUFFER-ZONES



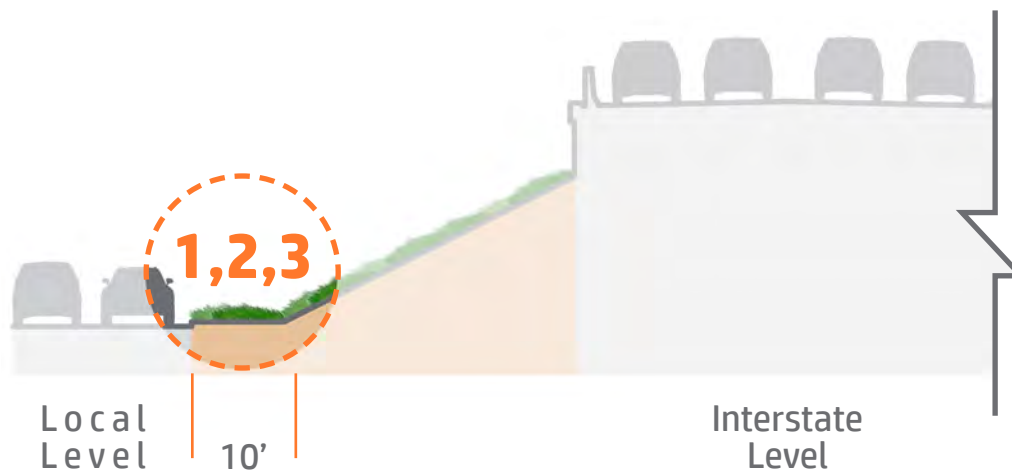
Standard Condition: Buffer-Zone Lining Local Level Roadway Edges



Potential Condition: Street Tree at Local Level as part of the Buffer-Zone



Potential Condition: Street Tree and Pedestrian Walk at Local Level as part of the Buffer-Zone



Note: The Buffer-Zones also occur in the areas between side slopes and property lines, as well as along the edge of any trails/walks.

10' Mown-Buffer-Zone Scenarios

TPOLOGY 3: SIDE SLOPE PLANTINGS

Design Intent

Plants, rather than extended infrastructure, can be used for erosion control and soil stabilization along the interstate embankments as a cost-effective and less- infrastructure dependent option.

Design Concept: ‘The Uplands’

Species of the upland plant community provide a root system for erosion control measures and adapt to the constructed terrain.

Benefits

- Unifies the east, west and south legs through repetition of plant massing and grouping
- Addresses erosion control concerns with an aesthetic solution
- Minimizes costs associate with mowing and maintenance
- Supports native flora and fauna

SUGGESTED SEED MIX COMPOSITION:

SLOPE STABILIZATION SEED MIX

The seed mix shall include deep-rooted, native species suited for sloped sites and erosion control with the following composition:

Approximately 20% Permanent Grass/ Sedge Species Seed and 80% Temporary Cover Species Seed applied at a rate of approximately 60 PLS (Pure Live Seed) pounds per acre.

This planting application shall be used along the east, west and south interstate leges, in areas where steepness of grade creates erosion control concerns and locations where design can rely on the use of planted slopes rather than built structures for retention of terrain. Tree canopies CANNOT overhang the interstate level roadway.

Side Slope Plantings General Guidelines:

- Plantings (unrelated to seed mixes) should be staggered in mass and placed parallel to contours, dispersing run-off rather than concentrating water flow between plant rows.
- Species with deep and/or wide spreading roots should be incorporated for soil stabilization.
- Broadleaf species should be incorporated to help with impact dispersion of rainfall.
- Protective covering should be used to protect seed from weather and wildlife until maturation - erosion control blankets, vegetated core logs, cover crop, etc.



Cardno Native Plant Nursery
Slope Stabilization Seed Mix



Minnesota Dept. of Transportation
Slope planting - forbs & grasses.



Minnesota Dept. of Transportation
Slope planting - forbs and grasses.

TPOLOGY 3: SIDE SLOPE PLANTINGS

Suggested Species Summary

The North Split Aesthetic Design Guidelines document provides suggestions for expanded plant palettes, some outside of standard INDOT and KIB plantings, that respond to the design concept of each typology. This is applicable to the suggested mixes and species for all typologies.

SUGGESTED PLANT SPECIES:

Native Grasses

Plugs, Planted 6" On-Center

- Sideoats Grama (*Bouteloua curtipendula*)
- Switchgrass (*Panicum virgatum*)
- Little Bluestem (*Schizachyrium scoparium*)
- Prairie Dropseed (*Sporobolus heterolepis*)

Native Forbs

Plugs, Planted 6" On-Center

- Butterfly Weed (*Asclepias tuberosa*)
- Purple Coneflower (*Echinacea purpurea*)
- New England Aster (*Symphyotrichum novae-angliae*)
- Yellow Coneflower (*Ratibida pinnata*)

Small Evergreen Shrubs

Minimum 3-Gallon Container, Planted 4' On-Center

- Juniper (*Juniperus virginiana* 'Grey Owl')

Small, Deciduous Shrubs

Minimum 3-Gallon Container, Planted 4' On-Center

- Black Chokeberry (*Aronia melanocarpa*)
- New Jersey Tea (*Ceanothus americanus*)
- Virginia Sweetspire (*Itea virginica*)
- Fragrant Sumac (*Rhus aromatica*)



Switchgrass



Little Bluestem



Prairie Dropseed



Asclepias tuberosa



Echinacea Purpurea



New England Aster



Grey Owl Juniper



Chokeberry

TPOLOGY 3: SIDE SLOPE PLANTINGS

SUGGESTED PLANT SPECIES (continued):

Large, Deciduous Shrubs

Minimum 3-Gallon Container, Planted 8' On-Center

- Winterberry (*Ilex verticillata*)
- Smooth Sumac (*Rhus glabra*)
- Arrowwood Viburnum (*Viburnum dentatum*)

Ornamental Trees

5-6' Tall, Planted at 15' On-Center

- Serviceberry (*Amelanchier x grandiflora*)
- Redbud (*Cercis canadensis*)
- Flowering Dogwood (*Cornus florida*)
- Green Hawthorn (*Crataegus viridis*)

Shade Trees

Minimum 2" Caliper, Planted at 15' On-Center
See "Shade Trees" under *Typology 4: Screen Plantings* section for Appropriate Species



Itea virginica



Fragrant Sumac



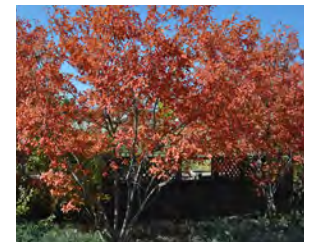
Winterberry



Smooth Sumac



Arrowwood Viburnum



Serviceberry



Redbud



Flowering Dogwood



Green Hawthorn

TPOLOGY 3: SIDE SLOPE PLANTINGS



1
Seed Mix

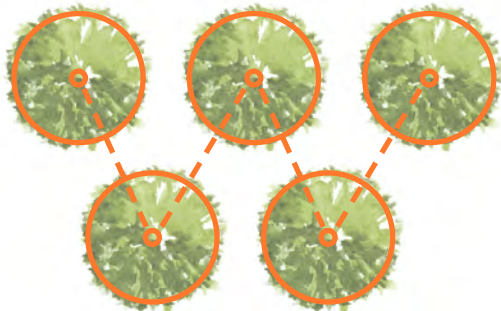


2
Seed Mix + Shrubs

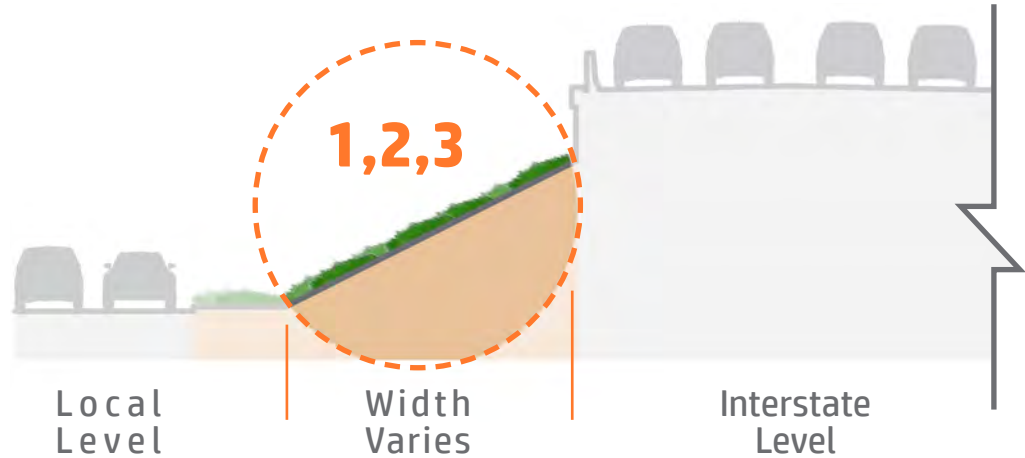


3
Seed Mix + Shrubs + Trees

Deep-rooted, native plants create a fibrous root system for embankment stabilization.



Staggered planting layouts for shrubs & trees assist with erosion control.



Side Slope Plantings Scenarios

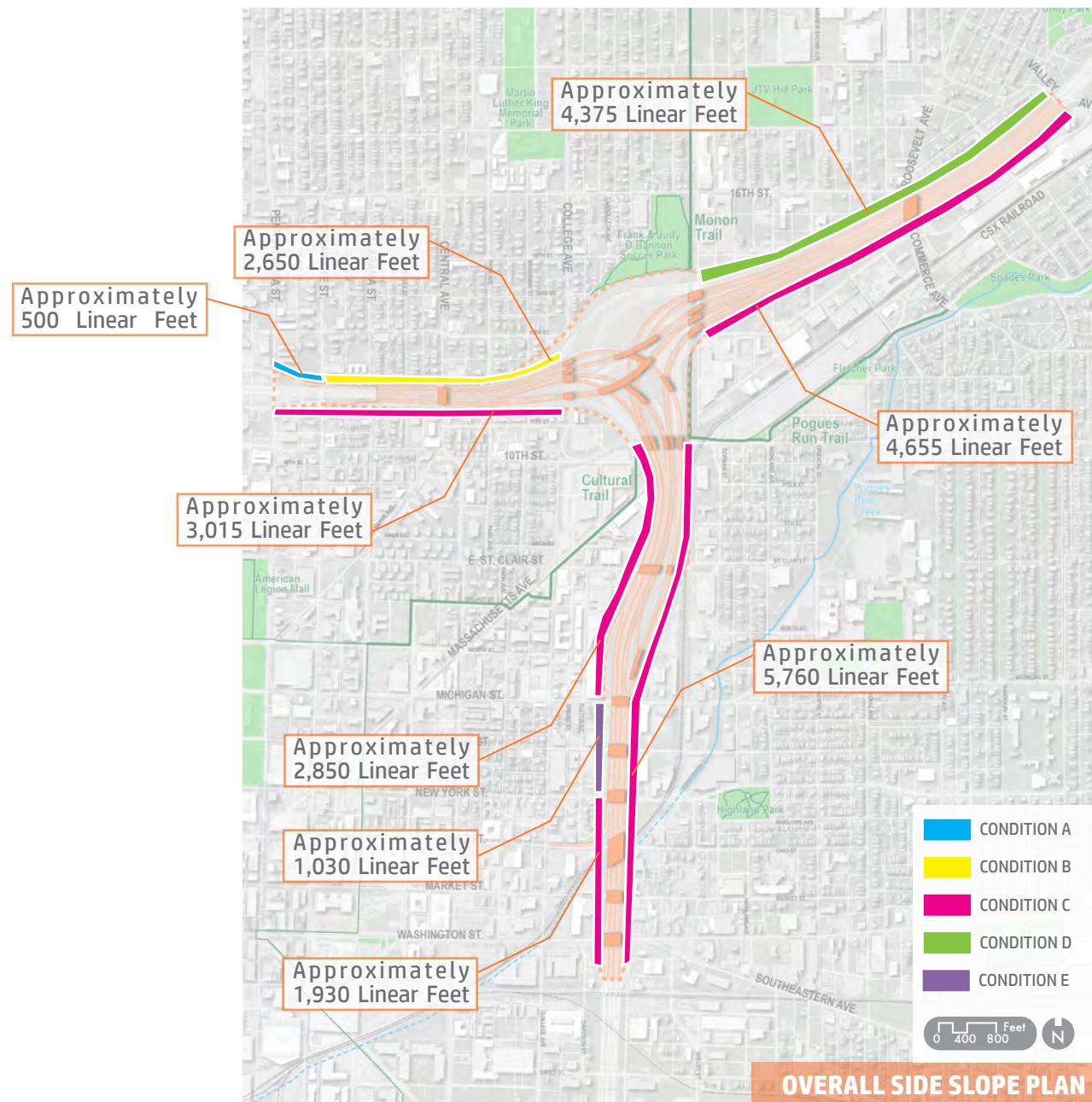
TPOLOGY 3: SIDE SLOPE PLANTINGS



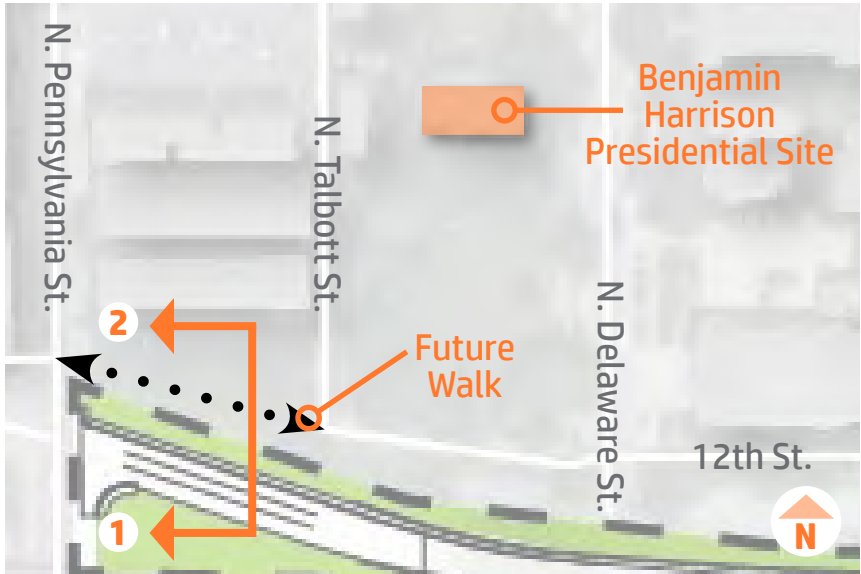
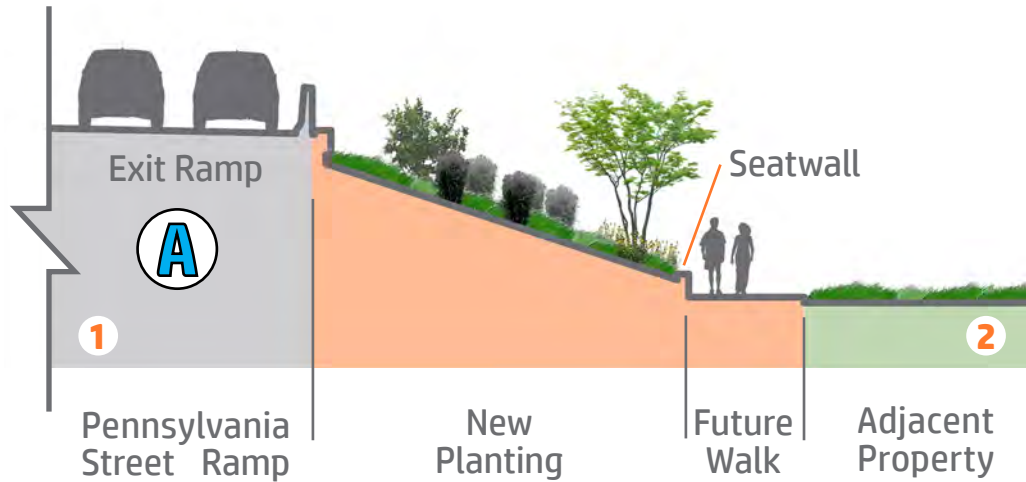
TPOLOGY 3: TYPICAL SIDE SLOPE CONDITIONS

Characteristics of Slopes

- Integrate landform design, grading, drainage and detention basin configuration with landscaping of interchange
- Grade embankments to slopes that are safely maintainable and eliminate rip-rap
- Configure ditches, swales, and detention basins to appear natural



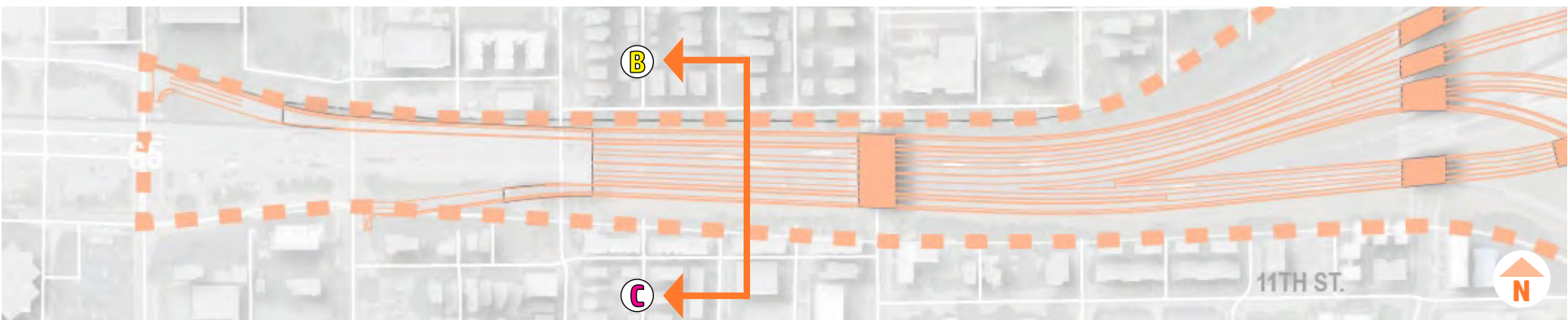
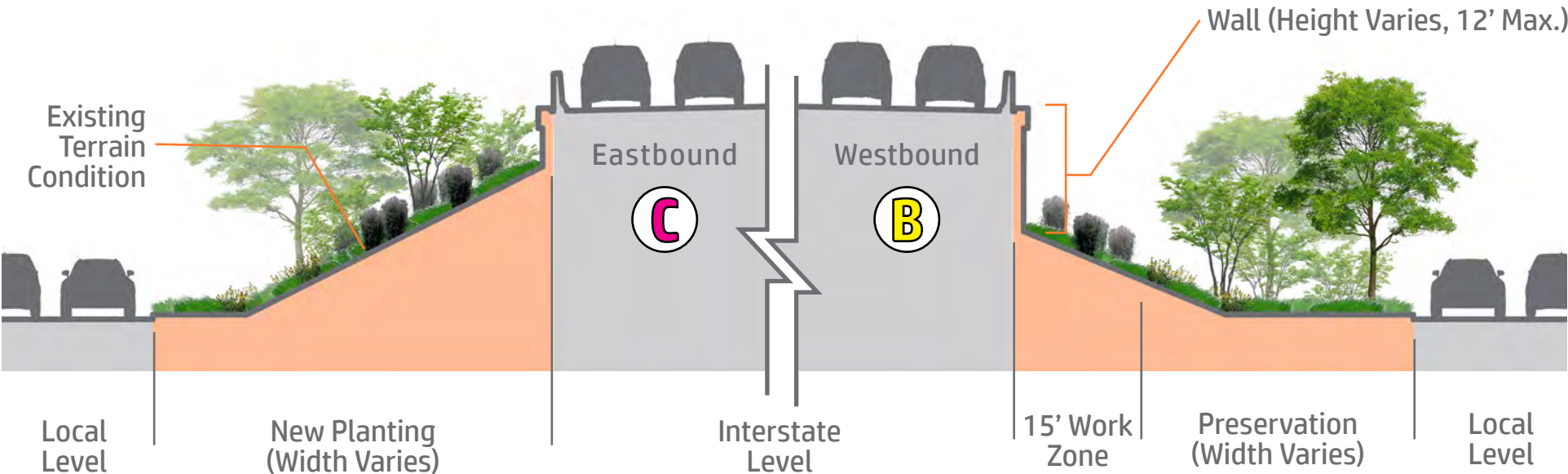
TPOLOGY 3, CONDITION A



West Leg Pennsylvania Street Ramp Side Slope Conditions (Not to Scale)

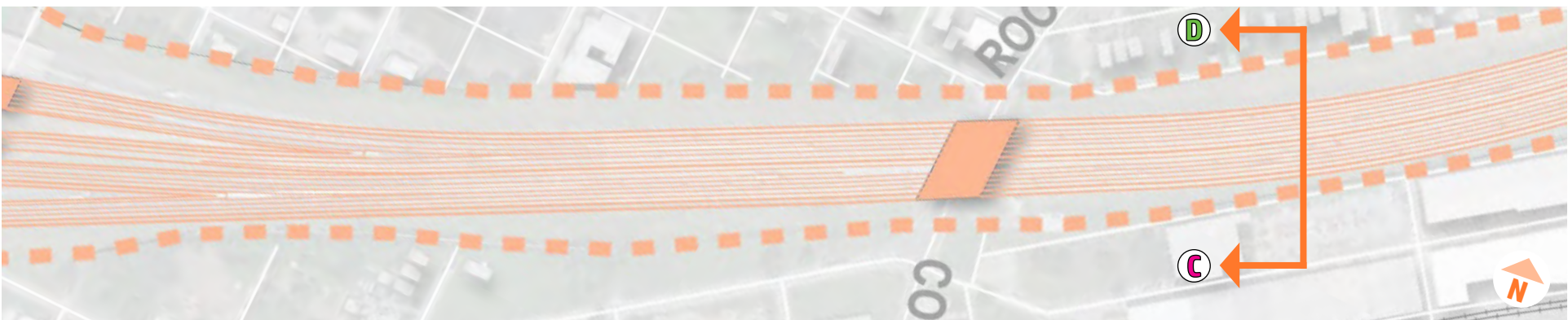
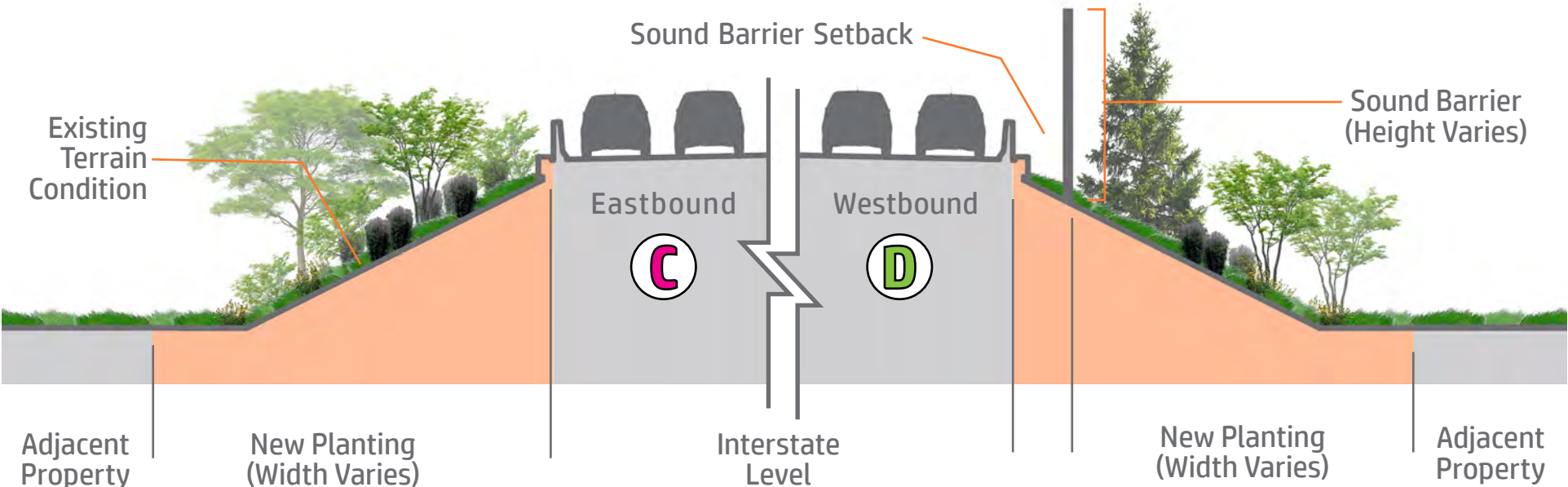
*Note: Construction of the future walk will be completed by others, outside of the project Right of Way, and its distance in relation to the seatwall is subject to change.

TPOLOGY 3, CONDITIONS C & B



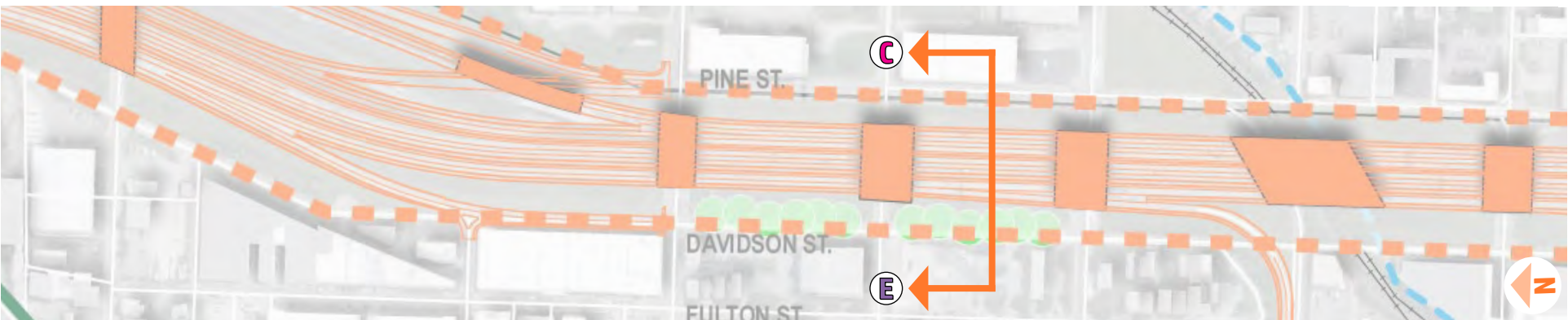
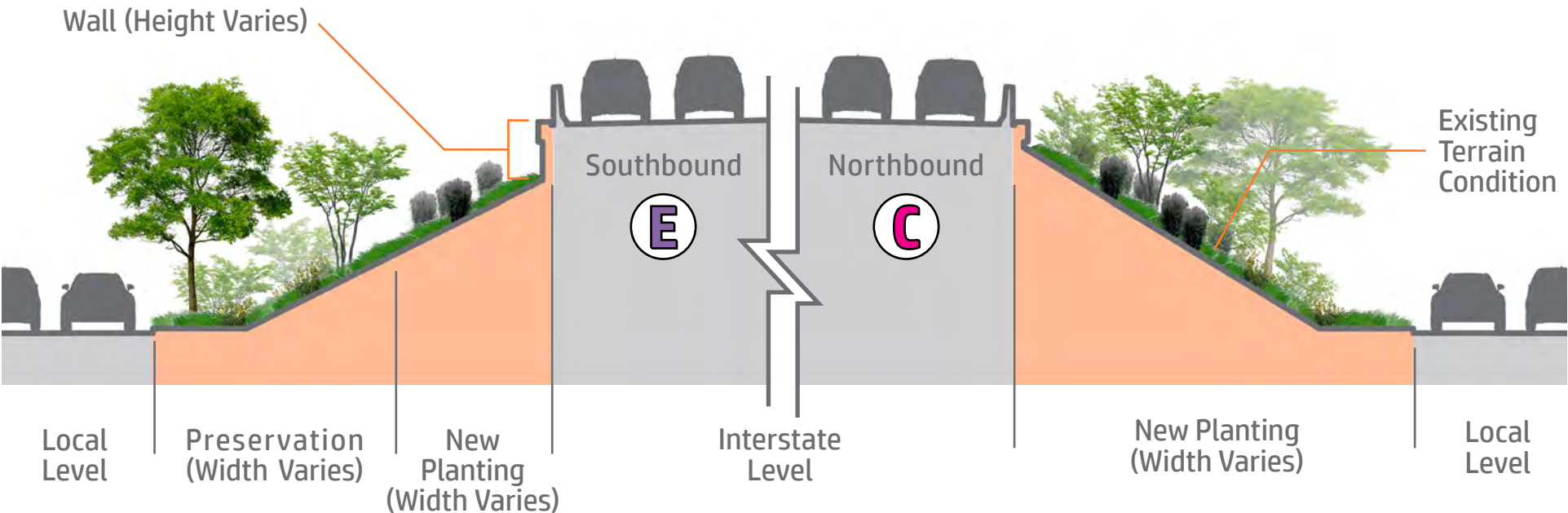
West Leg Slope Conditions (Not to Scale)

TPOLOGY 3, CONDITIONS C & D



East Leg Slope Conditions (Not to Scale)

TPOLOGY 3, CONDITION E & C



South Leg Slope Conditions (Not to Scale)

TPOLOGY 4: SCREEN PLANTINGS

Design Intent

Plants can minimize and soften the appearance of sound barriers.

Design Concept: 'The Woodlands'

The massing of evergreen and deciduous plants at the base of sound barriers can create a natural backdrop that mimics a woodland edge transition, when viewed from adjacent properties.

Benefits:

- Reduces the visual prominence of sound barriers
- Creates a visually interesting buffer and soft edge
- Offers a natural backdrop to neighboring communities

Screen Plantings General Design Guidelines:

- Plantings to screen should be used to mitigate scale between the interstate and neighborhoods.
- Screens need to have a vertical emphasis to provide maximum screening coverage.
- Arrangement should provide pedestrian and vehicular overhead along walks, trails, and roadways - at local street fronts.
- Plantings should include a 2:1 ratio of evergreen to deciduous species, offering year-round screening.
- Species variation is important but may require focus on deciduous varieties that are columnar in form for plants to fit the allotted space.
- Plantings will be placed along side slopes, at the base of sound barriers.

SUGGESTED SPECIES:

Large, Deciduous Shrubs

See "Large, Deciduous Shrubs" under the *Typology 3: Side Slope Plantings* section for Appropriate Species

Ornamental Trees

See "Ornamental Trees" under the *Typology 3:*

Side Slope Plantings section for Appropriate Species

Columnar Trees (applicable to narrow locations)

Minimum 2" Caliper, Planted at 15' On-Center

- Sweetgum (*Liquidambar styraciflua* 'Slender Silhouette')
- Pin Oak (*Quercus palustris* 'Green Pillar')
- Freeman Maple (*Acer x freemanii* 'Armstrong')
- European Hornbeam (*Carpinus betulus* 'Fastigiata')



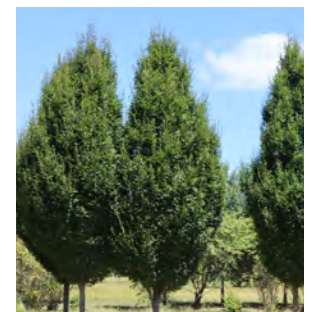
Slender Silhouette Sweetgum



Green Pillar Pin Oak



Freeman Maple



Upright European Hornbeam

TPOLOGY 4: SCREEN PLANTINGS

SUGGESTED SPECIES (continued):

Shade Trees (applicable along local street front) Minimum 2" Caliper, Planted at 15' On-Center

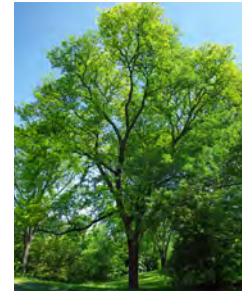
- Red Maple (*Acer rubrum*)
- Honey Locust (*Gleditsia triacanthos var. inermis*)
- Red Oak (*Quercus rubra*)
- American Elm (*Ulmus americana* 'Princeton')



Red Maple



Red Oak



Honeylocust



American Elm

Shade Trees Installation Guidelines

- Trees should be placed so that canopies do not overhang the interstate level.
- Trees should be placed to grow together upon maturation.

Evergreen Trees Minimum 6' Tall, Ball and Burlap Planted at 10' On-Center

- Arborvitae (*Thuja* 'Green Giant')
- Red Cedar (*Juniperus virginiana* 'Burkii')
- Red Cedar (*Juniperus virginiana* 'Canaertii')



Green Giant Arborvitae



Burkii Eastern Red Cedar



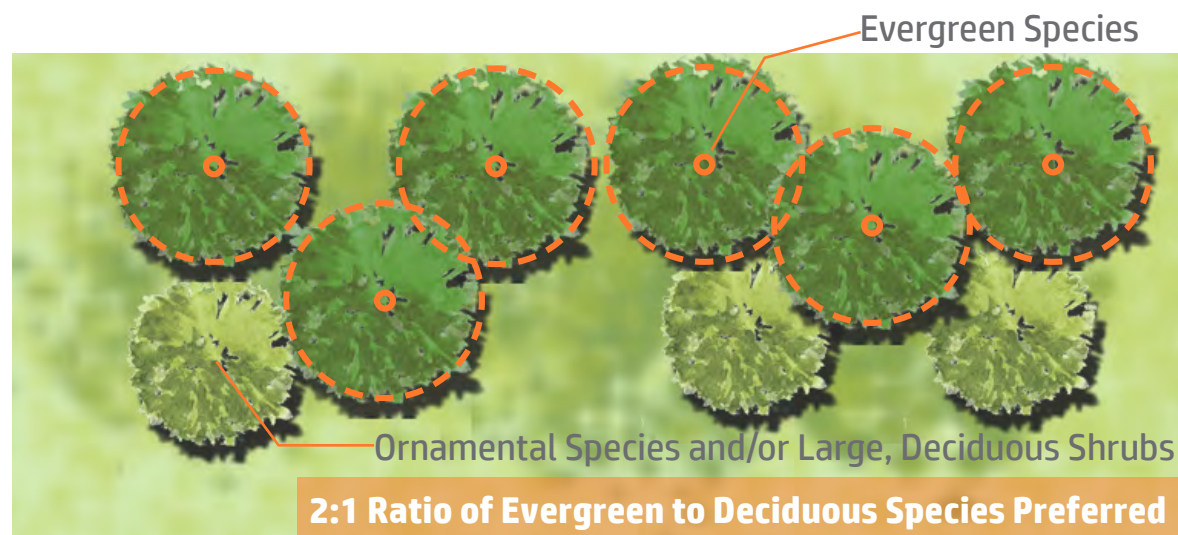
Canaertii Eastern Red Cedar

Evergreen Trees Installation Guidelines

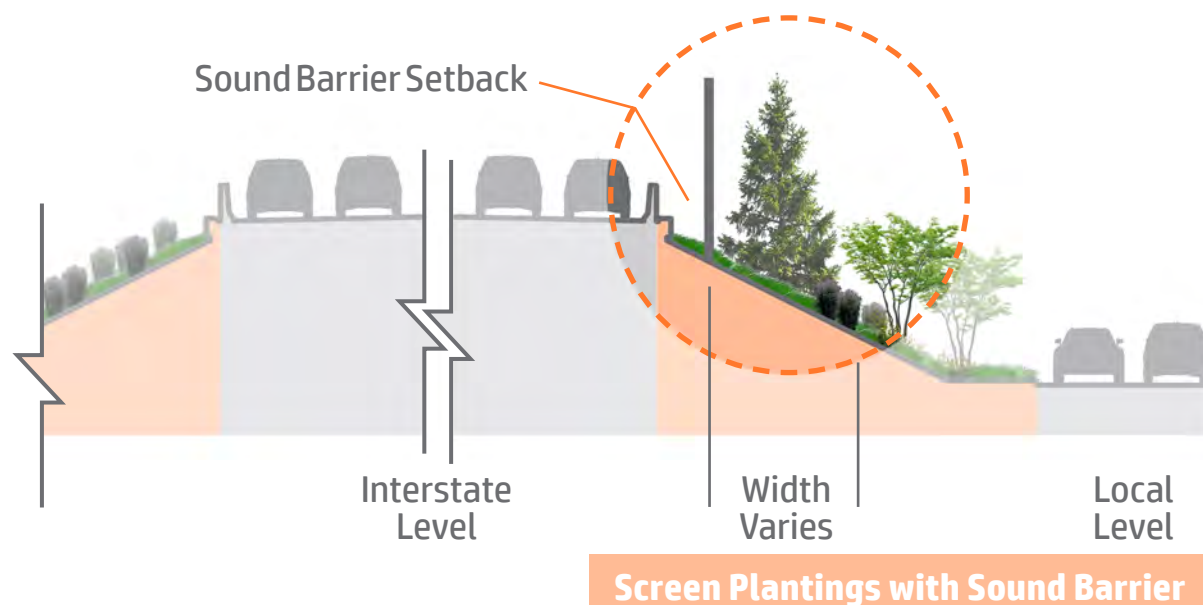
- Trees should be placed so bases do not overhang the buffer-zone.
- Trees should be placed to grow together upon maturation.

TPOLOGY 4: SCREEN PLANTINGS

Spacing between screen tree plantings to be a min. of 10'. Plants should be staggered in placement, as seen in diagram on page 54.



Trees (particularly evergreen species) shall be placed so that they grow together to form a “green wall”. A 2:1 ratio of evergreen to deciduous species is needed in order to achieve this effect as well as a maximum spacing of 10’ on-center. Any location where a sound barrier is implemented, a screen will be used to camouflage and soften the appearance.



TPOLOGY 5: INTERCHANGE PLANTINGS

Design Intent

Plants can give purpose to expansive spaces in a manner that is low in cost and required maintenance, but high in visual quality. Over time, the maturation of trees in this area will create a more dense canopy that will begin to take on characteristics of some stakeholder desires to create an “urban forest.” This is essentially the heavy massing of trees to create an urban vegetative treatment style.

Design Concept: ‘The Prairie’s Edge’

The seeding and planting of large, open areas with mixes of native grasses, sedges and forbs, as well as a variety of tree species, responds to the public’s desire for a natural-feel landscape juxtaposed against the urban setting.

SUGGESTED SEED MIX COMPOSITION:

PRAIRIE SEED MIX

This planting application shall be used in areas within the interchange.

The mix shall include native prairie grasses, sedges and flowering species that provide color throughout the growing season and act as food sources for birds, butterflies and insects with the following composition:

Approximately 20% Permanent Grass/Sedge Species Seed, 10% Forb Species Seed and 70% Temporary Cover Species Seed applied at a rate of approximately 40 PLS (Pure Live Seed) pounds per acre.

NATIVE WILDFLOWER SEED MIX

This planting application shall be used to supplement the *Prairie Seed Mix*, offering more color and diversity in blooming species, particularly during prairie establishment.

It shall include quick-blooming, native wildflowers that are beneficial to native bees and pollinators with the following composition:

100% Flowering Forb Species Seed applied at a rate of approximately 5 PLS (Pure Live Seed) pounds per acre.

Seed Mix Installation Guide

- Protective covering shall be used to protect seed from weather and wildlife.
- Installation recommendations from the supplier shall be followed.



Cardno
Prairie Mix in bloom.



Cardno
Native Wildflower Seed Mix.



Michael Volker via Pinterest
Prairie planting early to late summer.



Iowa Natural Heritage Foundation
Prairie planting late summer to early fall.

TPOLOGY 5: INTERCHANGE PLANTINGS

Benefits

- Softens the road infrastructure with large, plant massing
- Unifies the interchange with the legs in repetition of seed species
- Minimizes costs associated with mowing and maintenance
- Supports native flora and fauna

SUGGESTED SPECIES:

Shade Trees (applicable to the interchange 'urban forest') **Minimum 2" Caliper, Planted at 15' On-Center**

- Tulip Tree (*Liriodendron Tulipifera*)
- American Beech (*Fagus grandifolia*)
- Black Gum (*Nyssa sylvatica*)
- American Linden (*Tilia americana*)
- Sugar Maple (*Acer saccharum*)
- Red Maple (*Acer rubrum*)
- Honey Locust (*Gleditsia triacanthos var. inermis*)
- Red Oak (*Quercus rubra*)
- American Elm (*Ulmus americana* 'Princeton')

Ornamental Trees (grouped along the edges of the No-Tree-Buffer-Zones, as shown on the next two pages)

5-6' Tall, Planted at 15' On-Center

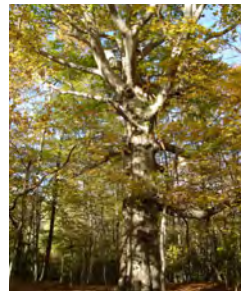
- Serviceberry (*Amelanchier x grandiflora*)
- Redbud (*Cercis canadensis*)
- Flowering Dogwood (*Cornus florida*)
- Green Hawthorn (*Crataegus viridis*)

Interchange Tree Installation Guidelines

- Trees should be planted in a grid pattern at a maximum of 15' o.c.
- Trees with messier seeds/fruits are planted further within the interchange.



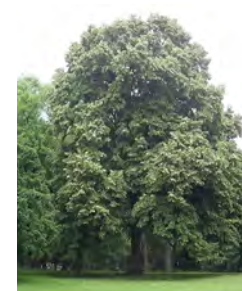
Tulip Tree



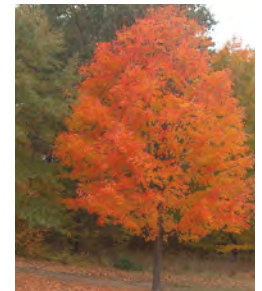
American Beech



Black Gum

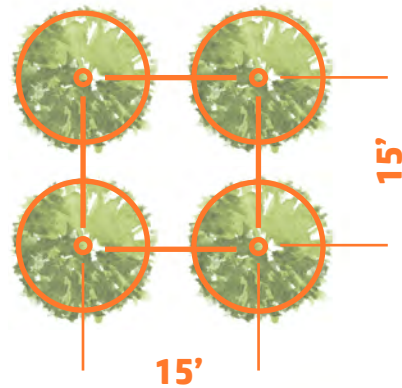


American Linden



Sugar Maple

TPOLOGY 5: INTERCHANGE PLANTINGS, CANOPY TREES

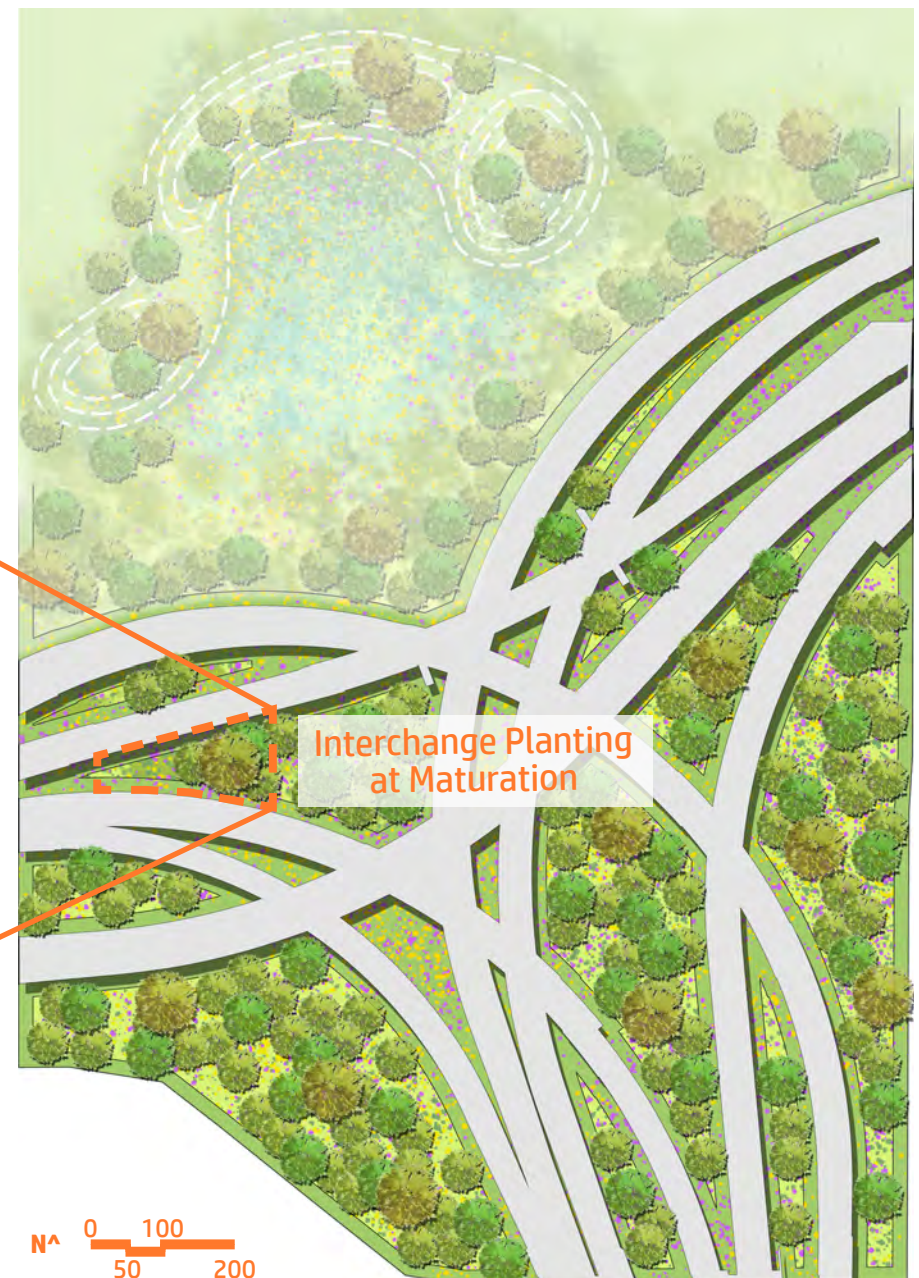


The illustrations to the left and below show the use of a fractured grid pattern for the placement of trees within the interchange.



The approach to planting such a space shall be one of restorative quality - planting large quantities in close proximity - where survival of the fittest tree specimen will result in a naturalistic appearance. The interchange planting will follow Keep Indianapolis Beautiful's (KIB) planting standard of 15' on-center maximum spacing.

Canopy Tree Grid Arrangement



TPOLOGY 5: INTERCHANGE PLANTINGS, CANOPY TREES

The 20' No-Tree-Buffer-Zone within the interchange is a similar concept to *Typology 2: 10' Buffer-Zone* seen along the local roadways. This 20' No-Tree-Buffer Zone (occurring along the edge of all interstate roadways) is a continuation of the chosen seed mixes that extends from the inner portion of the interchange under any interchange bridges. This zone is void of planted trees, and any interior trees shall be planted so that mature canopy widths DO NOT impede the interstate roadway.



Grouped Ornamental Trees
at No-Tree-Buffer-Zone Edge

Aerial View Looking Towards Downtown of the Interchange Plantings

TPOLOGY 6: DETENTION BASIN PLANTINGS

Design Intent

A heavily planted area for the purpose of stormwater detention - a dry extended detention basin - is favored over a traditional retention pond for benefits it offers the urban landscape.

Design Concept: 'The Wetlands'

A detention basin to resemble that of a wetland environment will provide more aesthetic value to the site, minimize the amount of standing water and allow even infiltration.

Benefits

- Filtrates pollutants from storm water runoff
- Allows for infiltration of otherwise standing water
- Designed alternative to traditional systems, offering aesthetic value
- Blends "natural" and urban environments
- Supports local flora and fauna

Seed Mix Composition:

STORMWATER SEED MIX

This planting application shall be used within the interchange for vegetated swales and in lieu of a retention pond.

The seed mix must tolerate highly fluctuating water levels and poor water quality associated with urban stormwater runoff with the following composition:

Approximately 10% Permanent Grass/Sedge Species Seed, 5% Forb Species Seed and 85% Temporary Cover Species Seed applied at a rate of approximately 35 PLS (Pure Live Seed) pounds per acre.

PRAIRIE SEED MIX

See *Typology 5: Interchange Plantings* section for Appropriate Seed Mix

The *Prairie Seed Mix* can be incorporated with the *Stormwater Seed Mix* in the upper third of basins that experience long, dry periods.



Cardno
Economy Prairie Seed Mix -
Yellow Coneflower



Cardno
Stormwater Seed Mix -
Crested Oval Sedge

Detention Basin General Design Guidelines:

- Basin design should conform to regulations set by INDOT and local stormwater ordinances (IDEM Storm Water Quality Manual).
- Construct of basins should allow for the slow infiltration of water, with standing water persisting for no less than 24 hours and no longer than 72.
- Basins should be graded in a way that resembles a natural pond bed, having curvilinear and undulating forms.
- Bio-retention areas should be included at inlets/outlets of basins.
- Basin size should be dictated by the watershed coverage of collected runoff.
- Overall shape and side slopes should follow a 4:1, or flatter, ratio in construct.



Perkiomen Watershed Conservancy
Naturalized Stormwater Detention Basin

TPOLOGY 6: DETENTION BASIN PLANTINGS

SUGGESTED SPECIES:

Large, Deciduous Shrubs Minimum 3-Gallon Container, Planted 8' On-Center

- Sandbar Willow (*Salix interior*)
- Gray Dogwood (*Cornus racemosa*)
- Spicebush (*Lindera benzoin*)
- Elderberry (*Sambucus canadensis*)

Shade Trees Minimum 2" Caliper, Planted at 15' On-Center

- Bald Cypress (*Taxodium distichum* var. *distichum*)
- Swamp White Oak (*Quercus bicolor*)
- Black Willow (*Salix nigra*)
- Pin Oak (*Quercus palustris*)



Sandbar Willow



Gray Dogwood



Spicebush



Elderberry



Bald Cypress



Swamp White Oak

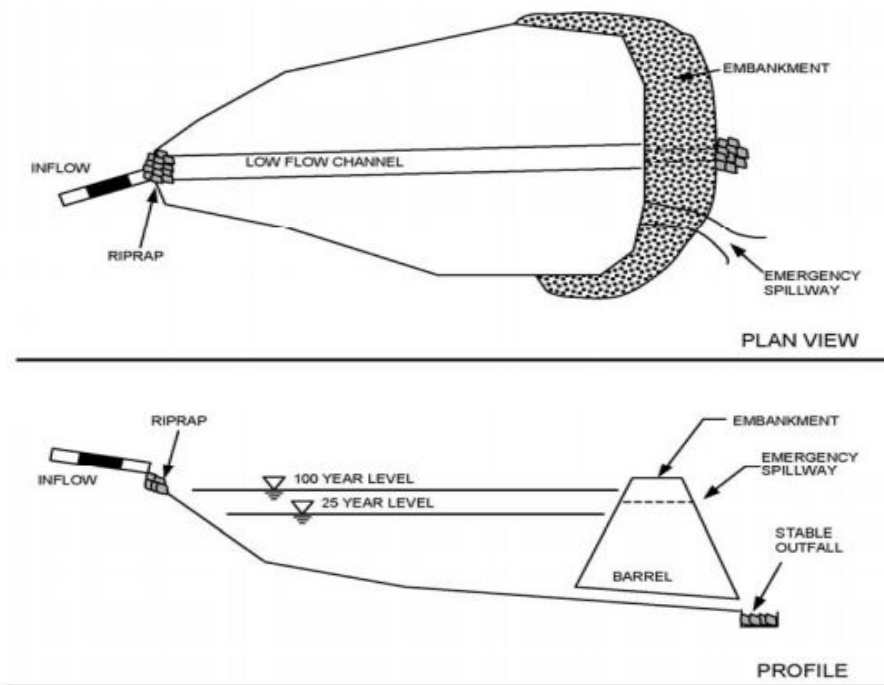


Black Willow



Pin Oak

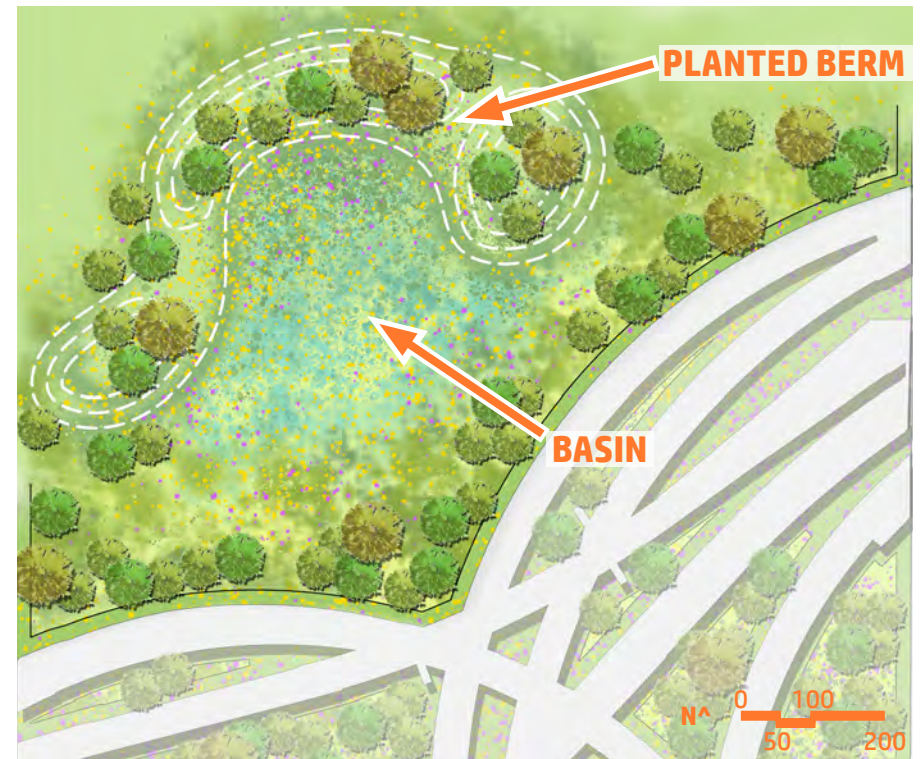
TPOLOGY 7: DETENTION BASIN PLANTINGS



Source: Georgia Stormwater Managment Manual, 2001

The conceptual details above show an overview of how such a basin would be arranged. The area north of the interchange - space gained through the shrinking footprint of the new design - provides a perfect location for this to occur. A sculpted berm can provide aesthetic and functional value in the separation of the basin from public activities of the Frank & Judy O'Bannon Soccer Park.

Detention Basin Conceptual Design



University of Illinois
Planted Dry- Detention Basin

Attachment D – Memorandum of Understanding Among the Federal Highway Administration, Indiana State Historic Preservation Officer, Indiana Department of Transportation, and Federally Recognized Tribes Interested in Indiana Lands Regarding Tribal Consultation Requirements for the Indiana Federal Transportation Program (Appendices Removed)

**MEMORANDUM OF UNDERSTANDING
AMONG
THE FEDERAL HIGHWAY ADMINISTRATION,
INDIANA STATE HISTORIC PRESERVATION OFFICER,
INDIANA DEPARTMENT OF TRANSPORTATION,
and
FEDERALLY RECOGNIZED TRIBES INTERESTED IN INDIANA LANDS
REGARDING TRIBAL CONSULTATION REQUIREMENTS
FOR THE INDIANA FEDERAL TRANSPORTATION PROGRAM**

PREFACE

This Memorandum of Understanding (MOU) is the result of discussions among the Federal Highway Administration (FHWA), the Indiana Department of Transportation (INDOT), the Indiana State Historic Preservation Officer (SHPO), and federally recognized Tribes whose ancestral homelands include the State of Indiana (Tribes)¹. This document is intended to define and develop procedures for consultation in compliance with the National Historic Preservation Act (NHPA) (54 U.S.C. § 300101 et seq.), among the FHWA, INDOT, and Tribes. As required under the terms of the NHPA and resulting regulations (36 C.F.R. Part 800), consultation has revealed that many Tribes have aboriginal ties to what is now the State of Indiana. Those Tribes have requested to be consulted on future transportation projects in Indiana.

The FHWA and INDOT understand that cultural resources are revered by the Tribes and are a connection to their past and important to their cultural identity, sense of self and future well-being. Tribes are concerned with the continuing destruction of places and items of cultural value, including cultural resources, burial sites, and Traditional Cultural Properties (TCPs)². The destruction of these resources impacts Tribal cultural identity today. Cultural resources are tied to people's ancestors, some are related to important religious activities, and many have ongoing spiritual connections. The FHWA and INDOT recognize the importance of these cultural resources to aboriginal people living today.

The FHWA and INDOT recognize that transportation projects have the potential to adversely affect historic properties³: burials, funerary objects, sacred objects, objects of cultural patrimony, sacred sites, archaeological sites, and TCPs, as well as traditional cultural landscapes⁴ and traditional natural resources⁵ that may not be eligible and/or protected by the National Register but may still be of value to Tribes. The

¹ See Appendix A: COUNTY LISTING OF THE TRIBES' ANCESTRAL HOMELANDS AND TERRITORY IN THE STATE OF INDIANA.

² A Traditional Cultural Property (TCP) is eligible for inclusion in the National Register because of its association with cultural practices or beliefs of a living community that: (a) are rooted in that community's history, and (b) are important in maintaining the continuing cultural identity of the community. (National Register Bulletin 38).

³ The term "historic property" is defined in the NHPA as, "any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion, on the National Register"; such term includes artifacts, records, and remains which are related to such district, site, building, structure, or object (54 U.S.C. § 300308).

⁴ Traditional cultural landscapes are understood to be areas considered sacred or culturally significant by tribes that include plants, animals, sound, light, view shed, and other sometimes intangible features that are revered through or described through a tribe's language, songs, stories, ceremonies, and place names (ACHP's The Protection of Indian Sacred Sites: General Information, July 2015. <http://www.achp.gov/docs/sacred-sites-general-info-july-2015.pdf>; accessed December 11, 2015).

⁵ Traditional natural resources are understood to be trees, plants, berries, nuts, fruits, minerals, and any floral or fauna species that are considered sacred, medicinal, or culturally important to tribal religious beliefs, traditions, and practices (ACHP's The Protection of Indian Sacred Sites: General Information, July 2015. <http://www.achp.gov/docs/sacred-sites-general-info-july-2015.pdf>; accessed December 11, 2015).

FHWA and INDOT understand that the construction of the modern transportation network typically did not take into account impacts to these resources. The FHWA and INDOT do not wish further destruction of these culturally valued places, and recognize the inherent rights of Tribes to preserve those places that they value.

Modern development, including transportation construction, has the potential to destroy or adversely impact valuable cultural resources. This MOU is intended to ensure that all parties understand which cultural resources are important to Tribes and work together to protect and preserve them, or mitigate for their loss. The FHWA and INDOT are committed to providing a transportation system that will benefit all people of Indiana, both current and historic, and to learning tribal perspectives about cultural resources important to Tribes. The Tribes are committed to understanding transportation issues and the perspectives of the FHWA and INDOT. Jointly, we are committed to establishing a relationship of mutual trust and respect.

It is the intention of the FHWA and INDOT to work with Tribes to find appropriate ways to avoid, minimize or mitigate adverse effects to historic properties. The FHWA and INDOT pledge to always look for ways to avoid adverse effects to historic properties as the first option. When avoidance of adverse effects is impossible or impractical, given other concerns of equal importance, the FHWA and INDOT will work with the Tribes for appropriate and respectful resolution.

INDOT will ensure that the requirements of the Native American Graves Protection and Repatriation Act (NAGPRA) (25 U.S.C. § 3001 et seq.) are followed when there is a discovery of human remains, burials or associated funerary objects (AFOs) on federal lands. In the event of a discovery of human remains or burial objects on non-federal lands during transportation planning or construction activities, at a minimum INDOT will comply with all applicable federal and state laws and regulations, including Section 106 of the NHPA of 1966 (54 U.S.C. § 300101 and 36 C.F.R. Part 800), the Indiana Historic Preservation Act (IC 14-21), and Indiana Administrative Code 312 IAC 22 (see III.C.2).

WHEREAS, all signatory Tribes identified in Appendix A are federally recognized sovereign, self-governing Indian Tribes with their own tribal laws, with established government-to-government relationships with the United States, and a historical connection to specific areas of Indiana, as shown in Appendix A: “COUNTY LISTING OF THE TRIBES’ ANCESTRAL HOMELANDS AND TERRITORY IN THE STATE OF INDIANA,” and have been consulted and agree to be signatories to this document;

WHEREAS, the Indiana SHPO has been consulted and agrees to be a signatory to this document;

WHEREAS, the FHWA wish to affirm the government-to-government relationship with the Tribes for consultation and cooperation regarding federal acts and orders including, but not limited to, Section 106 of the National Historic Preservation Act (54 U.S.C. § 300101 et seq.); the National Environmental Policy Act, (42 U.S.C. § 4321 et seq.); the Archaeological Resource Protection Act (16 U.S.C. § 470aa et seq.); Presidential Executive Order 13007 (Indian Sacred Sites); Presidential Executive Order 13175 (Consultation and Coordination with Indian Tribal Governments); Native American Graves Protection and Repatriation Act (NAGPRA) (25 U.S.C. § 3001 et seq.); and, the American Indian Religious Freedom Act (42 U.S.C. § 1996);

WHEREAS, the FHWA is the federal agency with statutory responsibilities for administering the federal-aid highway program under 23 U.S.C. § 101 et seq., and INDOT administers and oversees federal funds for

state and local transportation projects in Indiana. The FHWA agrees to coordinate under a government-to-government relationship with Tribes with regard to federal responsibilities under Section 106 of the NHPA through the terms of this MOU. INDOT will also consult with Tribes to manage or advise on matters pertaining to cultural resources;

WHEREAS, the FHWA has determined that its undertakings may have an effect upon properties included in or eligible for inclusion in the National Register of Historic Places (NRHP). FHWA and INDOT have also determined that its undertakings may have an effect upon traditional cultural landscapes and traditional natural resources that may not be eligible or protected by the National Register but may still be of value to Tribes. Through this MOU, FHWA and INDOT will consult with Tribes pursuant to Section 106 of the NHPA (54 U.S.C. § 300101 et seq.);

WHEREAS, the FHWA and INDOT are committed to: 1) avoiding, minimizing, and mitigating adverse effects to historic properties; 2) considering tribal interests in the preservation of significant cultural resources that are important to tribal well-being, growth, and prosperity; and 3) responding to the needs of Tribes;

WHEREAS, INDOT will employ departmental staff that meet the federal professional qualification requirements of 36 C.F.R. Part 61 and State of Indiana standards (IC 14-21-1 and 312 IAC 21). At a minimum, the professional staff required to carry out the terms of this MOU shall consist of one permanent, full time archaeologist;

WHEREAS, INDOT contracts archaeological fieldwork to only qualified professionals. INDOT will ensure that all consultants conducting archaeological fieldwork meet the federal professional qualification requirements of 36 C.F.R. Part 61 and State of Indiana standards (IC 14-21-1 and 312 IAC 21). INDOT ensures and will continue to ensure that fieldwork and reporting meets federal and state guidelines;

WHEREAS, the FHWA, INDOT, and the signatory Tribes aspire to engage in meaningful, long-term planning for the appropriate consideration of cultural resources important to Tribes, and to pursue the following:

- develop a comprehensive and efficient tribal consultation process based upon education and understanding for Section 106 undertakings;
- continue to identify ways to streamline the Section 106 process and procedural requirements;
- recognize that Tribes share the responsibility to engage in effective consultation;
- involve the Tribes' cultural experts to a greater extent and at an earlier point than before the implementation of this MOU;
- devote the time and energy needed to identify relevant transportation problems threatening cultural resources important to the Tribes; and
- accomplish any additional goals identified through consultation and agreed upon by the parties;

BE IT RESOLVED, the FHWA, INDOT and Tribes hereby agree that the implementation of tribal consultation on transportation projects shall be established through government-to-government relations with Tribes. At a minimum, consultation will be in accordance with the following stipulations in order to satisfy FHWA tribal consultation responsibilities under the NHPA.

STIPULATIONS

I. GENERAL

A. This MOU sets forth the process by which FHWA will meet its responsibilities of the Federal Aid Highway Program with regard to tribal consultation under Section 106 of the NHPA for transportation projects within the State of Indiana. This MOU establishes a protocol for consultation with Tribes on individual transportation projects.

B. Nothing in this MOU shall be interpreted to alter the requirements of the NHPA or its implementing regulations. In the event any portion of this MOU is deemed contradictory, or less restrictive, to law or regulation, only that portion becomes void. The sole contradictory provision or issue shall not negate the entire MOU. The parties should consult to resolve the contradictory issue with the intent to reform or amend that portion of the MOU to make it compliant with applicable law or regulation while all remaining provisions of the MOU remain in full force and effect.

C. No portion of this MOU shall be interpreted to limit the rights, duties, or responsibilities of any party as may be required under federal laws, regulations, policies, executive memoranda or executive orders, or Indiana state statutes.

D. Consultation with Tribes shall begin when Section 106 consultation is initiated and before a final transportation alternative is approved. Tribal early coordination shall be sent to ensure tribal views are considered into the decision making process and consultation shall continue throughout a Section 106 undertaking. A letter or email of notification, in and of itself, from FHWA/INDOT to a Tribe is not considered consultation. Consultation is a mutual, meaningful dialogue between FHWA, INDOT, SHPO, and Tribes regarding historic properties that may be affected by an undertaking. The FHWA and INDOT shall consult with Tribes on a government-to-government basis in recognition of its sovereign status as early as possible in the planning process and throughout the Section 106 process, regarding any activity or undertaking that might affect cultural resources of concern to the Tribes.

Consultation may include face-to-face meetings, as well as communications by mail, electronic mail, facsimile, and telephone. When it is determined that consultation will be by a face-to-face meeting, FHWA and INDOT will coordinate with the consulting party Tribes to develop a mutually agreed upon time and place to meet.

Consultation may be extended to include future management, protection, and preservation if historic properties that are of cultural and/or religious significance to Tribes are identified.

E. The FHWA and INDOT shall ensure that Tribes are afforded, in accordance with applicable federal, state, and local authorities and highway safety measures, the opportunity to conduct religious/traditional ceremonies within right-of-way owned by INDOT.

F. The FHWA and INDOT recognize that facilitating effective tribal consultation may require providing travel support for tribal officials. Future formal agreements may specify how this support may occur.

G. The FHWA and INDOT shall ensure that consultation with other consulting parties, including local governments, shall not include the dissemination, beyond those who have an official need to know, of

confidential information except as mandated by federal or state laws. Confidential information is defined as information pertaining to Native American⁶ sites, that, if disclosed may:

1. cause a significant invasion of privacy; risk harm to historic properties; or impede the use of a traditional religious site by practitioners (54 U.S.C. § 307103 et seq.);
2. risk harm to TCPs, traditional cultural landscapes, and traditional natural resources;
3. risk harm to archaeological sites that may contain burials or human remains, funerary objects, sacred objects and/or objects of cultural patrimony; or
4. risk harm to Native American historic properties in accordance with Section 304 of the NHPA.

H. As Native American archaeological sites, TCPs, traditional cultural landscapes, traditional natural resources, burial sites, funerary objects, sacred objects, and/or objects of cultural patrimony are non-renewable resources, FHWA and INDOT shall make a reasonable and good faith effort to inform the public and private landowners regarding stewardship, site protection and preservation which may include but not be limited to tax incentives or related benefits, lectures, exhibits, site-specific consultation, brochures, and videos.

I. A Tribe may request to enter the process at any time.

J. Tribes will be contacted if Native American human remains, burials, or burial objects are found during archaeological investigations or during construction. In any instance where Native American human remains are uncovered, Tribes will be notified in accordance with III.C. of this MOU.

⁶ Throughout this MOU, the term Native American can refer to pre-Columbian peoples and post-Columbian American Indians.

II. NOTIFICATION FOR CONSULTATION PROCEDURES

A. *Points of Contact*: The FHWA, INDOT, SHPO, and Tribes shall each designate primary and secondary contacts⁷. The primary contact for Tribes is the contact to whom all initial and formal correspondence goes, including notification and updates of public involvement for the Indiana Statewide Transportation Improvement Plan (STIP) and project specific Section 106 correspondence and documentation. If the individual designated as the primary point of contact is not available, communications shall be directed to the secondary contact. The primary and secondary contacts within each Tribe are responsible for involving the appropriate tribal individuals. Each party of this MOU shall provide in writing (hardcopy or email) the other parties with the phone numbers, email addresses, and mailing addresses for the primary and secondary contacts. Each party shall notify the other parties in writing (hardcopy or email) when either point of contact changes. On an annual basis, FHWA/INDOT will send an email request to the Tribes asking for new or updated contact information and update the contact list accordingly. Such changes shall not require the amendment of this agreement.

B. *Tribal Areas of Concern*: The Tribes have provided, or will provide, FHWA/INDOT with a listing of all Indiana counties that exist within their ancestral homeland and territory, in which they have an interest (see Appendix A). At the Tribes' discretion, a Tribe or Tribes may also be identified to review projects in other areas of Indiana. The FHWA/INDOT will maintain this list and will update as necessary when additional tribal interests are made known. If Tribes do not provide FHWA/INDOT with their counties of interest, FHWA/INDOT will utilize the table entitled *Indiana-Present Day Tribes Associated with Indiana Land Cessions 1784-1894* available from National NAGPRA Online Databases in its tribal consultation.

C. *Delegation of Certain Responsibilities to INDOT*: INDOT will provide Indiana STIP annual updates to Tribes and notify Tribes of public meetings and comment periods on the STIP. INDOT will conduct Early Coordination with the Tribes for applicable projects (see Stipulation II.F.), soliciting the Tribes' input as early as possible in the project's development, and providing them detailed project information as necessary or requested.

INDOT will maintain cultural resource staff, or utilize consultants, who, at a minimum, meet the federal qualifications set forth in the Secretary of the Interior's Professional Qualification Standards (36 C.F.R. Part 61) and State of Indiana standards (IC 14-21-1 and 312 IAC 21) for cultural resource studies. INDOT may also carry out consultation activities in accordance with Stipulation I.D., but FHWA will be involved in or monitor all such consultations and will at all times be available for direct communication with any party. The FHWA will be a signatory on all project-specific or other formal agreement documents.

D. *Indiana Program Documents*: The Indiana Statewide Transportation Improvement Program (STIP) is a four-year planning document that lists all projects expected to be funded in those four years with Federal funds and those state-funded projects that have been deemed as Regionally Significant. The list of projects included in the STIP is maintained on the INDOT website <http://www.in.gov/indot/2348.htm>.

E. *Programmatic Agreement and Projects Exempt from Section 106 Early Coordination*: FHWA and INDOT periodically execute programmatic agreements (PA) with the SHPO and the Advisory Council on Historic Preservation (ACHP) that determines how Section 106 is satisfied by FHWA in Indiana. At the

⁷ see Appendix B: POINT OF CONTACT LIST.

time of execution of this MOU, the FHWA IN Division administers Section 106 following the *Programmatic Agreement Among the Federal Highway Administration, the Indiana Department of Transportation, the Advisory Council on Historic Preservation Officer Regarding the Implementation of the Federal Aid Highway Program In the State of Indiana* dated September 6, 2006⁸. This PA includes categories of minor projects exempted from Section 106 early coordination and consultation. The project types exempted from Section 106 early coordination and consultation by the PA are generally limited to the repair, replacement or upgrade of existing transportation infrastructure. The PA can also be applied to three project types (B-8: Trails; B-9: Small Structure Replacements; and B-10: Slide Corrections) after an archaeological reconnaissance has identified no NRHP eligible archaeological sites within the project area. If a potentially eligible or eligible archaeological site is identified, the PA does not apply and Section 106 consultation is required. All archaeological reports prepared for review under the PA shall be provided to Tribes and SHPO.

FHWA and INDOT will consult with the Tribes in development of new programmatic agreements. As new programmatic agreements are executed, Appendix C will be updated with the most recent version without requiring amendment to this MOU.

No federal-aid projects are exempt from being listed in the Indiana STIP. Tribes will see a listing of *all* federal-aid projects in their counties of interest (see III.A). If a Tribe expresses concerns about a project listed in the STIP that qualifies for Section 106 clearance under the PA, FHWA and INDOT will consult further with the Tribe. Based on this consultation, FHWA and INDOT may determine that the PA is not applicable due to tribal concerns and Section 106 consultation will be required as outlined in III.A-C.

F. Transportation Projects to be Considered for Early Coordination: INDOT will initiate Early Coordination with Tribes and SHPO on projects that have the potential to affect cultural resources that may be of interest to Tribes. Early Coordination will be initiated for:

1. Any INDOT project that is considered to be a Federal undertaking that is subject to Section 106 as described in 36 C.F.R. Parts 800.3(a) and 800.16(y) and is not exempt from Section 106 early coordination and consultation through application of the PA. The FHWA/INDOT will coordinate with Tribes who claim association with that project's county (see II.B); and
2. The FHWA/INDOT will consult with Tribes regarding any properties in which they have an expressed interest as a result of their review of project documentation provided by INDOT.

G. Early Coordination: Early Coordination provides the SHPO, Tribes, and other consulting parties the opportunity to request participation in the Section 106 process and to comment on a project's anticipated impacts early in project development. Early Coordination may be conducted via an email generated from INDOT's Section 106 electronic consultation portal, an email sent by FHWA/INDOT, or hard copy correspondence sent by FHWA/INDOT, if requested. Minimally, Early Coordination will include a project description, topographical map indicating township, section and range, a request for the recipient to indicate their interest for consulting on the project, and request for any concerns/feedback. When Section

⁸ See Appendix C: PROGRAMMATIC AGREEMENT (PA) AMONG THE FEDERAL HIGHWAY ADMINISTRATION, THE INDIANA DEPARTMENT OF TRANSPORTATION, THE ADVISORY COUNCIL ON HISTORIC PRESERVATION AND THE INDIANA STATE HISTORIC PRESERVATION OFFICER REGARDING THE IMPLEMENTATION OF THE FEDERAL AID HIGHWAY PROGRAM IN THE STATE OF INDIANA.

106 consultation is initiated and before a final transportation alternative is approved, tribal early coordination shall be sent to ensure tribal views are considered into the decision making process. Tribes will have 30 days from receipt of the early coordination letter to provide comments and/or concerns.

H. *Quality Assurance Reviews*: On an annual basis, FHWA and INDOT will conduct Quality Assurance Reviews (QARs) of post-construction transportation projects in three (of six) INDOT Districts. QARs consist of reviewing projects exempted from Section 106 early coordination and consultation through the PA to confirm that the PA was applied correctly based on the scope of work. QARs will also include on-site visits to project locations to verify that the project scope and construction were completed as explained in the PA or Section 106 documentation as appropriate and to ensure that any commitments regarding cultural resources were followed. Should a QAR involve a project in which Tribes expressed an interest during Section 106 consultation, Tribes will be notified two weeks prior to the QAR and invited to attend the site visit. In addition, if Tribes have specific projects of concern, they can request that those projects be included in future QARs at any time. If serious problems regarding tribal commitments not being followed are identified during a QAR, Tribes will be notified immediately. QAR annual reports will be provided to INDOT, FHWA, SHPO, and Tribes.

III. CONSULTATION PROCEDURES

A. *Indiana Program Documents*: On an annual basis, INDOT will email tribal contacts the STIP website address for review. INDOT will also notify tribal contacts by email when INDOT offers public comment periods or public meetings in development of a new STIP document. This information will give the Tribes the opportunity to review and comment on *all* projects in their counties of interest in advance of project development.

If a Tribe expresses interest in any project(s) listed in the STIP, detailed project information will be sent to them and the procedures under Stipulation III. B. will be followed.

B. *Early Coordination*: In addition to the regular notification of all projects in the Indiana STIP, INDOT will initiate Section 106 early coordination and consultation early in project development when Section 106 consultation is initiated and before a final transportation alternative is approved, for undertakings that are not categories of minor projects exempted from Section 106 early coordination and consultation (Appendix C). These are projects that INDOT has determined may have potential to affect historic properties.

Tribes, FHWA, SHPO, and INDOT mutually agree on the following consultation procedures for identifying and evaluating the effects of projects on cultural resources. These procedures shall comply with all applicable federal and state laws, statutes, and regulations. To the extent any provision conflicts with or is less protective of Tribal interests than applicable federal law or regulation, the federal law or regulation shall take precedent.

1. Early coordination letters and any follow up correspondence will be written on either INDOT or FHWA letterhead and signed by a representative of sending agency; informal correspondence between agencies and Tribes may be by email. INDOT will use Appendices A and B to identify and invite Tribes into Section 106 consultation for a project under study in their area of concern. The early coordination letter (ECL) will provide a project description along with a 7.5 minute quadrangle map showing the proposed project location, providing township, section, and range. The Tribe will notify INDOT if there is a Native American archaeological site, TCP, traditional cultural landscape, or traditional natural resource within the

project area, or if they have an interest in the undertaking. If INDOT does not receive a response from the Tribe by the date specified by INDOT (not fewer than 30 days) they may assume the Tribe has no interest in the undertaking.

2. Tribes that respond within the time allotted by INDOT (not fewer than 30 days) with an interest in the undertaking will be a consulting party for the project. Tribes may request additional project information, which INDOT will provide. The means of consultation will be negotiated on a project case-by-case basis as appropriate for each Tribe's interest and request. Tribes may re-enter into consultation at any point during the Section 106 process.

3. If there is any disagreement among the agencies and Tribes regarding the eligibility of an archaeological site, TCP, traditional cultural landscape or traditional natural resource all parties will have further discussions to attempt to reach agreement and will follow eligibility guidelines in National Park Service Bulletin 38.

If INDOT/FHWA and Tribes cannot reach agreement regarding the eligibility of an archaeological site, TCP, traditional cultural landscape or traditional natural resource after following the guidelines outlined in National Park Service Bulletin 38, the Tribe may, per the Section 106 regulations at 36 C.F.R. Part 800.4(c)(2), ask the ACHP to request that the federal agency obtain a formal eligibility determination from the Keeper of the National Register.

4. INDOT, in consultation with SHPO and Tribes, shall conduct appropriate archaeological investigations and prepare reports, which will be posted on INDOT's Section 106 electronic communication web portal. A notification that a report has been posted will be provided to the tribal contacts and SHPO. A hardcopy report will be provided to SHPO for as long as they require hard copy report submissions. Reports may also be sent by hardcopy to any consulting party Tribe that requests a hard-copy. The Tribes and SHPO will be provided a 30-day review period that will run concurrently.

Any response received from a consulting party Tribe during this period will be provided to SHPO for consideration in the identification of historic properties. If INDOT does not receive a response within the 30-day period from a consulting party Tribe, FHWA/INDOT may assume the Tribe has no comment regarding the outcome of the archaeological investigation.

5. For identified archaeological sites that FHWA and INDOT, in consultation with consulting party Tribes and SHPO, agree are not eligible for inclusion in the NRHP, no further archaeological investigations will be required. For projects where there are no historic properties present or none that will be affected, INDOT shall provide documentation of no historic properties affected as set forth in 36 C.F.R. Part 800.11(d) to the consulting party Tribes and SHPO.

6. For archaeological sites evaluated as eligible for listing on the NRHP, consultation will continue with the SHPO and consulting party Tribes to avoid, minimize or mitigate adverse effects to the eligible resource. When a historic property may be affected by the undertaking, FHWA/INDOT will apply the criteria of adverse effect as set forth in C.F.R. 36 Part 800.5(a)(1) and shall provide documentation as set forth in 36 C.F.R. Part 800.11(e) to the consulting party Tribes and the Indiana SHPO. If adverse effects cannot be avoided, then INDOT, FHWA, the Tribes, and SHPO will consult to develop a Memorandum of Agreement (MOA).

C. Unanticipated Discoveries During Construction: The following procedures will be used in the event that previously unreported and unanticipated artifacts or human remains (including funerary objects, sacred objects, and objects of cultural patrimony) are found during INDOT construction activities. The procedures differ depending on whether unanticipated artifacts (see Section C.1.) or human remains (including funerary objects, sacred objects, and objects of cultural patrimony) (see Section C.2.) are encountered. These procedures are intended to ensure that the project is in compliance with all applicable federal and state laws and regulations, including Section 106 of the NHPA of 1966 (54 U.S.C. § 300101 and 36 C.F.R. Part 800), the Indiana Historic Preservation Act (IC 14-21), Indiana Administrative Code 312 IAC 22, and INDOT Standard Specification 107.10.

1. *Procedures for an Unanticipated Discovery of artifacts:* In the event of unanticipated discovery of artifacts during INDOT construction activities, INDOT will follow these procedures:

- (a) The construction contractor (Contractor) shall immediately stop all construction activity within a 100 ft. radius of the discovery and cease further disturbance. If the Contractor is unaware of the size and scope of the discovery or if the discovery suggests the possible presence of other artifacts within the work site, the Contractor shall also immediately stop all construction activity beyond a 100 ft. radius of the discovery to the extent appropriate. The Contractor shall notify the INDOT Project Engineer (Engineer) who will inform INDOT CRO of the discovery. Within two business days from the time of discovery, INDOT CRO shall notify the Indiana Department of Natural Resources-Division of Historic Preservation and Archaeology (DHPA) and Tribes.

Within 48 hours of notification of the discovery, INDOT CRO shall review a description and photographs of the discovery provided by the Contractor or Engineer and determine whether construction may resume or if a site visit is warranted to document and evaluate the discovery. Consultation with Tribes and DHPA will be initiated to help determine the value of items found and assist in determinations of eligibility. If a site visit is warranted, INDOT CRO will have two business days following the site visit and Tribal input to determine the NRHP eligibility of the discovery. Tribes shall be invited to attend site visits to assist in eligibility determinations.

- (b) If the discovery is not eligible for listing on the NRHP, INDOT CRO will report the site to DHPA and inform the Engineer that construction in the area of the discovery may resume. If there is disagreement among the agencies and Tribes regarding the eligibility of a discovery for listing, all parties shall further consult to attempt to reach an agreement. If an agreement cannot be reached after following the guidelines outlined in National Park Service Bulletin 38, the Tribe may, per the Section 106 regulations at 36 C.F.R. Part 800.4(c)(2), ask the ACHP to request that the federal agency obtain a formal eligibility determination from the Keeper of the National Register.
- (c) If the discovery is determined, through consultation, to be eligible for listing on the NRHP, INDOT CRO will consult with Tribes, previously identified consulting parties, FHWA, SHPO and the ACHP regarding INDOT CRO's proposed actions to resolve the adverse effects, if adverse effects cannot be avoided. Tribes and other consulting parties will have two business days to provide their views on the proposed actions. INDOT/FHWA will ensure that the recommendations of Tribes and other consulting parties are taken into account prior to granting approval of the measures that will be implemented to resolve adverse effects. These measures may include:

- preparation of a mitigation plan by INDOT CRO in consultation with the Tribes for approval by the DHPA;
- implementation of the mitigation plan;
- archaeological mitigation of the site (data recovery);
- DHPA approval to resume construction following completion of the fieldwork component of the mitigation plan;
- photographic documentation and/or scaled mapping of the resource;
- visits to the site by Tribes and DHPA.

(d) Dispute Resolution: The FHWA will seek and take into account the recommendations of the ACHP in resolving any disagreements that may arise regarding determination of effects.

2. Procedures for an Unanticipated Discovery of Human Remains and Burials (including funerary objects, sacred objects, and objects of cultural patrimony): In the event of an unanticipated discovery of human remains or burials (including funerary objects, sacred objects, and objects of cultural patrimony as defined by 43 C.F.R. § 10.2(d)) during INDOT construction activities or FHWA/INDOT archaeological investigations, INDOT will comply with the Native American Graves Protection and Repatriation Act (NAGPRA) (25 U.S.C. § 3001 et seq.), the Indiana Historic Preservation Act (IC 14-21), 312 IAC 22 and INDOT Standard Specification 107.10, and any other applicable federal and state laws, and will follow these procedures:

(a) Upon encountering human remains or an unmarked human burial (including funerary objects, sacred objects, and objects of cultural patrimony) during ground disturbing construction activities or archaeological investigations, INDOT, its consultant, or the Contractor shall immediately cease work within a 100 ft. radius of the discovery and inform local or state police and the county coroner. If the discovering party is unaware of the size and scope of the discovery or if the discovery suggests the possible presence of other human remains or an unmarked human burial within the work site, the party shall also immediately stop all construction activity beyond a 100 ft. radius of the discovery to the extent appropriate. If uncovered during construction, the Contractor shall notify the Engineer who will inform INDOT CRO of the discovery; INDOT CRO will then notify DHPA/SHPO and Tribes within two business days of the time of the discovery. If identified during archaeological work, INDOT will notify SHPO and Tribes within two business days of the time of discovery. In addition to ceasing work, the discovering party must make a reasonable effort to protect the human remains, funerary objects, sacred objects, or objects of cultural patrimony discovered inadvertently.

(b) In coordination with DHPA/SHPO and Tribes, INDOT CRO will determine if the skeletal remains are human, the degree to which they were disturbed, and if possible, assess their potential age and cultural affiliation without any further disturbance. If the skeletal remains are human and are Native American in origin, CRO will notify by email the point of contact(s) for each Tribe claiming interest in the county of the discovery. If discoveries are not of human remains, the INDOT CRO shall further consult with Tribes to determine if such discoveries are funerary objects, sacred objects, or objects of cultural patrimony.

(c) If it is determined by INDOT CRO, in consultation with DHPA/SHPO, FHWA, and Tribes, that intact or fragmented human remains are present and are Native American in origin, or that the discovered materials are funerary objects, sacred objects, and objects of cultural patrimony, INDOT

CRO will consult with Tribes, DHPA/SHPO, and FHWA regarding measures to avoid and protect the discovery or mitigate any adverse effect of the project on the discovery. These measures may include:

- INDOT CRO collaborating with design team to alter project plans to avoid human remains and/or burials (including funerary objects, sacred objects, and objects of cultural patrimony);
- avoiding the human remains and/or burial (including funerary objects, sacred objects, and objects of cultural patrimony) and preserving in place;
- if avoidance is not feasible, in consultation with Tribes, recovering the human remains and/or burial (including funerary objects, sacred objects, and objects of cultural patrimony) through standard archaeological methods;
- preparation of a mitigation plan by INDOT CRO in consultation with the Tribes for approval by the DHPA;
- implementation of the mitigation plan;
- archaeological mitigation of the site (data recovery);
- visits to the site by Tribes and DHPA;
- DHPA approval to resume construction following completion of the fieldwork component of the mitigation plan;
- consultation with Tribes, FHWA, and DHPA/SHPO regarding disinterment and reinterment of Native American human remains. FHWA and DHPA/SHPO will defer to tribal recommendations regarding cultural affiliations, disinterment, and reburial of Native American human remains and/or burials (including funerary objects, sacred objects, and objects of cultural patrimony).

IV. OTHER POINTS OF MUTUAL AGREEMENT

A. Execution and Implementation: This MOU is effective as of the date of the last signature among FHWA, SHPO, INDOT, and at least one Tribe with an interest in Indiana lands. Other Tribes may become signatory to this MOU after that date, without the need to amend this MOU. The successful implementation of this process shall constitute meaningful consultation between FHWA and the Signatory Tribes to fulfill tribal consultation requirements of Section 106 of the NHPA.

B. Annual Report and Evaluation of MOU Implementation: On an annual basis, INDOT will submit a report to FHWA, SHPO, and Tribes identifying projects processed under this MOU. The report shall include a description of actions taken to comply with this MOU. The report should provide a description and summary of exempted projects listed in Appendix C for which INDOT did not conduct Section 106 early coordination and consultation. At the same time, FHWA and INDOT will offer the opportunity for a meeting (in-person, teleconference or web-conference) with signatories to discuss issues defined in this MOU. The purpose of the annual meeting is to continue effective working relationships and evaluate the implementation of this agreement.

C. Confidentiality: The FHWA and INDOT acknowledge the need for confidentiality of certain tribal religious and cultural information that may be provided by Tribes during the course of consultations, and other aspects of tribal consultation conducted on cultural resource issues. Information identified as sensitive by consulted tribal members, and requested to remain confidential, will remain confidential to the extent permitted by state and federal law (54 U.S.C. § 307103 et seq. and Section 304 of NHPA).

D. *Dispute Resolution*: Should any signatory object at a later date to the implementation of this agreement in whole or in part, the objecting party will consult with all signatories to resolve the objection. If all signatories are unable to satisfactorily resolve the issue, and the issue involves resolution of the Adverse Effect of an INDOT project on a site eligible for inclusion on the NRHP, the administrative process defined in 36 C.F.R. Part 800.6 will be followed.

E. *Failure to Comply/Termination*: If any signatory determines that the terms of this MOU cannot be or are not being carried out, then the signatories shall consult regarding the reasons, and will seek amendment to the MOU, if appropriate. If the MOU is not amended, any signatory may terminate their participation in the MOU by providing 30 calendar days written notice to the other parties. In the event of termination by a Tribe, the FHWA and INDOT shall comply with 36 C.F.R. Part 800 and continue with individual tribal consultation with that Tribe. As long as the FHWA, INDOT, SHPO, and at least one Tribe continues to participate, the MOU will remain in effect, but the Tribes who have terminated their participation will no longer be held to the terms of this agreement.

F. *Amendment*: Any signatory to this MOU may request that it be amended, whereupon all signatories shall consult to consider such an amendment. Any resulting amendments shall be developed and executed among the signatories in the same manner as the original MOU. Any amendment to this MOU will go into effect only upon written agreement of all signatories.

G. *Participation in Similar Activities*: This MOU in no way restricts the FHWA, INDOT, or the signatory Tribes from participating in similar activities with other public or private agencies, organizations, and individuals.

H. *Commencement/Termination Date*: This MOU is executed as of the date of last signature between FHWA, INDOT, SHPO, the ACHP, and at least one Tribe. Other Tribes may become signatory to this agreement after that date. This MOU is effective through December 31, 2030, at which time it will expire unless specifically extended by signatory resolution. One year prior to expiration, the signatories will discuss whether this agreement should be renewed, modified, or allowed to expire.


SIGNATORIES:

FEDERAL HIGHWAY ADMINISTRATION

By: Mayela Sosa
Mayela Sosa
Division Administrator

Date: 14 Feb 2017

INDIANA DEPARTMENT OF TRANSPORTATION

By: 

Joseph McGuinness
Commissioner

Date: 2/3/2017

INDIANA STATE HISTORIC PRESERVATION OFFICER

By: _____

Cameron Clark,

Director, Indiana Department of Natural Resources

Date: _____

3-6-17

Insert individual Tribe(s) pages here:

**MEMORANDUM OF UNDERSTANDING
AMONG
THE FEDERAL HIGHWAY ADMINISTRATION,
INDIANA STATE HISTORIC PRESERVATION OFFICER,
INDIANA DEPARTMENT OF TRANSPORTATION,
and
FEDERALLY RECOGNIZED TRIBES INTERESTED IN INDIANA LANDS
REGARDING TRIBAL CONSULTATION REQUIREMENTS
FOR THE INDIANA FEDERAL TRANSPORTATION PROGRAM**

Name of Tribe: RED CLIFF BAND OF LAKE SUPERIOR CHIPPWAS

Signature: Lawrence Balber

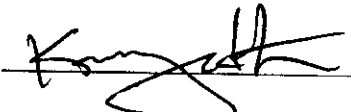
Date: 4/4/2017

Please Print Name: LAWRENCE BALBER

Title: TRIBAL HISTORIC PRESERVATIONS
OFFICER

**MEMORANDUM OF UNDERSTANDING
AMONG
THE FEDERAL HIGHWAY ADMINISTRATION,
INDIANA STATE HISTORIC PRESERVATION OFFICER,
INDIANA DEPARTMENT OF TRANSPORTATION,
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REGARDING TRIBAL CONSULTATION REQUIREMENTS
FOR THE INDIANA FEDERAL TRANSPORTATION PROGRAM**

Name of Tribe: Delaware Nation

Signature:  Date: 5/16/2017

Please Print Name: Kerry Holton Title: 5/16/2017

MEMORANDUM OF UNDERSTANDING
AMONG
THE FEDERAL HIGHWAY ADMINISTRATION,
INDIANA STATE HISTORIC PRESERVATION OFFICER,
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Name of Tribe: Niami Tribe of Oklahoma

Signature: Douglas Lankford Date: 3-16-17

Please Print Name: Douglas Lankford Title: Chief

**MEMORANDUM OF UNDERSTANDING
AMONG
THE FEDERAL HIGHWAY ADMINISTRATION,
INDIANA STATE HISTORIC PRESERVATION OFFICER,
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Name of Tribe: Seneca-Cayuga Nation

Signature: William L. Fisher Date: 3-13-2017

Please Print Name: William L. Fisher Title: Chief

**MEMORANDUM OF UNDERSTANDING
AMONG
THE FEDERAL HIGHWAY ADMINISTRATION,
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REGARDING TRIBAL CONSULTATION REQUIREMENTS
FOR THE INDIANA FEDERAL TRANSPORTATION PROGRAM**

Name of Tribe: Delaware Nation

Signature: Kerry Holton

Date: 4/4/2017

Please Print Name: # Kerry Holton

Title: 4/4/2017

**MEMORANDUM OF UNDERSTANDING
AMONG
THE FEDERAL HIGHWAY ADMINISTRATION,
INDIANA STATE HISTORIC PRESERVATION OFFICER,
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FOR THE INDIANA FEDERAL TRANSPORTATION PROGRAM**

Name of Tribe: DELAWARE TRIBE OF INDIANS

Signature: Chester L. Brooks Date: 3-6-2017

Please Print Name: CHESTER L. BROOKS Title: CHIEF

**MEMORANDUM OF UNDERSTANDING
AMONG
THE FEDERAL HIGHWAY ADMINISTRATION,
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FOR THE INDIANA FEDERAL TRANSPORTATION PROGRAM**

Name of Tribe: Eastern Shawnee Tribe of Oklahoma

Signature: Glenna J. Wallace

Date: 3-1-2017

Please Print Name: GLENN J. WALLACE

Title: Chief

**MEMORANDUM OF UNDERSTANDING
AMONG
THE FEDERAL HIGHWAY ADMINISTRATION,
INDIANA STATE HISTORIC PRESERVATION OFFICER,
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FOR THE INDIANA FEDERAL TRANSPORTATION PROGRAM**

Name of Tribe: F. C. P.

Signature: alw. milham Date: 3/20/2017

Please Print Name: AL W. MILHAM Title: Vice Chairman

**MEMORANDUM OF UNDERSTANDING
AMONG
THE FEDERAL HIGHWAY ADMINISTRATION,
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FOR THE INDIANA FEDERAL TRANSPORTATION PROGRAM**

Name of Tribe: Leech Lake Band of Ojibwe

Signature: *Faron Jackson Sr.* Date: 3-16-17

Please Print Name: Faron Jackson Sr. Title: chairman

LEECH LAKE BAND OF OJIBWE



Maggi Jordan

Executive Assistant
Tribal Chairman

Maggi.Jordan@llojibwe.org

Fax: (218) 335-7225

190 Sailstar Drive NW
Cass Lake, MN 56633

Office: (218) 335-4404 Cell: (218) 513-5623

**MEMORANDUM OF UNDERSTANDING
AMONG
THE FEDERAL HIGHWAY ADMINISTRATION,
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FOR THE INDIANA FEDERAL TRANSPORTATION PROGRAM**

Name of Tribe: Pokagon Band of Potawatomi Indian

Signature: Jason M. Wesaw Date: 3-31-17

Please Print Name: Jason M. Wesaw Title: Government Manager

**MEMORANDUM OF UNDERSTANDING
AMONG
THE FEDERAL HIGHWAY ADMINISTRATION,
INDIANA STATE HISTORIC PRESERVATION OFFICER,
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FOR THE INDIANA FEDERAL TRANSPORTATION PROGRAM**

Name of Tribe: Turtle Mountain Band of Chippewa Indians

Signature: Wayne Keplin Date: 3/5/17

Please Print Name: Wayne Keplin Title: Tribal Chairman